

Cancer Research Center مركز تحقيقات سرطان دانشگاه علوه پزشكى شهيد بهشتى





زمان : ۸-۶ اسفند ماه ۱۳۹۳ مکان : تهران، دانشگاه شهید بهشتی، تالار امام علی(ع)

چسان طلام

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دانشگاه علوم پزشک شهيد بهشتى



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پرستاری و مامائی

انجمن ژنـتیکایـران Iranian Genetics Society من آموزش پزشکی ایران

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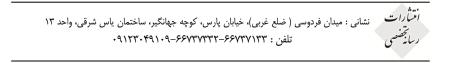
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## پیام رئیس دانشگاه

دکتر علی اکبر پیوندی

#### باسمه تعالى

همکاران گرامی، مهمانان عزیز مقدم شما عزيزان را به کنگره بـينالمللـي سـرطان يسـتان دانشـگاه گرامـي مـيداريـم. و خداوند بزرگ را سپاسگزارم که توفیقی عنایت فرمود تا برای سال دهم این کنگره بزرگ را برگزار کنیم. سرطان پستان به عنوان یک معضل بهداشتی در کشورها و برای همه زنـان جهان مورد عنایت ویژه وزارت بهداشت، درمان آموزش یزشکی و به تبع آن دانشگاه علـوم یزشکی شهید بهشتی قبرار دارد. در طبی این ده سال و در هبر سال برگزاری کنگره بینالمللی سرطان پستان تلاش شده است تا تعمیق علمی این بیماری از سطح مولکول تـا بالین و جامعه صورت گیرد. و بدین تربیت پاسخگوی نیازهای مردم عزیزمان بویژه زنان در جمهوری اسلامی باشیم. در سال جاری هم با دقت نظر روی ابعاد مختلف بیماری اعم از بحثهای پایه، بالینی و درمانهای مدرن تلاش داریم همه گروههای مرتبط با تشخیص و درمان را دور هم جمع کنیم، و به نگرشی جامع مراقبت تیمی در معالجیه بیمیاران جامیه عمل بیوشانیم. تعداد سرطان یستان هنوز در ایران به رقم کشورهای صنعتی نرسیده است و با عددی معادل ۳۰ درصد هزار زنان که سالانه قریب ده هزار نفر را مبتلا می کند. اما روند روبه رو رشد این بیماری که قریب ۶ درصد در سال می باشد، وضعیت را در حدی تقريباً خطرناک مورد توجه مدیران دانشگاه علوم یزشکی شـهید بهشـتی قـرار داده اسـت. مرکز تحقیقات سرطان دانشگاه با همتی عالمانه و دلسوزانه در طول ده سال گذشته همه سختیها را به جان خریده است تا این دین ملی را از سوی دانشگاه ادا کند. خوشبختانه در دو سال گذشته ما بعنوان اولین و تنها دانشگاه کشور مسئول آموزش دورههای

تخصصی فلوشیپ جراحی پستان شدهایم و در این راه با تربیت تخصصی همکاران امیدواریم که این طلیعه علمی در همه دانشگاههای علوم پزشکی نورافشانی کند و شبکهای جامع برای ارتقای خدمت به مردم فراهم آورد.

دانشگاه علوم پزشکی شهید بهشتی به عنوان پیش قراول علمی درمانهای مدرن در سرطان پستان همانند انجام عقده لنفاوی پیشاهنگ(SLNB) و یا درمان رادیوتراپی حین عمل (IORT) و یا جراحیهای متعدد حفظ پستان (BCS) و انجام تحقیقات مرتبط این وظیفه خطیر را به خوبی انجام داده است. در کنگره دهم نیز با بهره گیری از تجربیات ارزشمند اساتید داخل و خارج کشور و همه آنچه را که علم روز میدانیم در طبق اخلاص آورده و به شما تقدیم میکنیم. بار دیگر مقدم شما عزیزان را گرامی داشته و امید دارم سه روز عطیه و سودمندی را در این دانشگاه سپری فرمائید. فرصت را غنیمت شمرده و به همکارانم در مرکز تحقیقات سرطان خدا قوت میگویم و امیدوارم تلاش آنها مرضی حق تعالی باشد.

## پیام رئیس کنگرہ

دكتر محمد اسماعيل اكبرى

#### بسم الله الرحمن الرحيم

ده سال گذشت، ده بار تلاش مستمر برای بروز رسانی علم سرطان سینه در ایران، خداونـد علیم را سپاسگزاریم که به مجموعه خادمین علم در مرکز تحقیقات سرطان توفیق داد تا با حمايت همه جانبه همه نهادهاي علمي و تحقيقاتي كشور و يشتيباني خيرين عالم و دلسوز، دهمین کنگره بینالمللی سرطان یستان را در روزهای ۲،۶ و ۸ اسفند ماه سال جاری در تالار امام علی(ع) دانشگاه علوم پزشکی شهید بهشتی برگزار کنیم. خدمتگزاران شما حتی یک روز از سال را بدون تلاش برای راهاندازی کنگر مهای سرطان یستان از دست نمیدهند تا این کنگره با جامعیت خاص خودش بتواند یاسخگوی نیازهای علمے، همکاران ما باشد. خوشبختانه هر سال با قدرت علمی بیشتری کنگره در سطح جهانی معرفی شده است و نهادها و سازمانهای جدیدی از آن حمایت کردهاند. دهمین کنگره بینالمللی سرطان یستان با برگزاری۳۳سخنرانی، ۲۰کارگاه عملی، ۱۰یانل وکنگره عظیم مردمی شفایافتگان از سرطان تلاش می کند تا ادای دین جامعی را به طالبان علیم داشته باشد. تازههای جراحی در قالب کارگاههای علمی و سخنرانیهای علمی، تازههای تشخیصی، و درمانهای جانبی از قبیل رادیوتراپی و شیمی درمانی و عوامل موثر ایی ژنتیکی موثر در ایجاد سرطان با تعمیق بیولوژیک یافتههای معنوبت درمانی در حد سلول و ژن، چهرهایی از مطالب ارائه شده در این کنگره خواه د بود. در دهم ین کنگره بینالمللی سرطان پستان، تحقیقات ملی ایرانیان در محک مقایسه با دانشمندان معتبری از سایر کشورهای جهان قرار می گیرد که منجر به پالایش علمی لازم برای فراگیران خواهد بود.

دهمین کنگره بینالمللی سرطان پستان میزبان ۱۴مهمان از کشورهای آمریکا، اتریش، بلژیک، سوئیس، ترکیه، ایتالیا،عمان میباشد. که تجربیات خود را در قالب کارگاههای عملی و سخنرانیهای علمی ارائه خواهند کرد. در کنگره سال جاری با دعوت از مسئولین مستقیم نهادهای بینالمللی مدیریت سرطان در جهان تجربیات گرانقدری را در اختیار شرکت کنندگان قرار میدهیم که میتواند موجب تحول شگرفی در افراد شرکت کننده و یا مدیران اجرائی کشور ایجاد کند و خطی و مشیهای روشنی را برای این نهادها ارائه دهد. مرکز تحقیقات سرطان دانشگاه علوم پزشکی شهید بهشتی مفتخر است که شما را در دهمین کنگره بینالمللی سرطان پستان در تالار امام علی(ع) دانشگاه زیارت کند و همه آنچه را در توان دارد برای جلب رضایت علمی شما به کار بندد.

> خدایا چنان کن تو پایان کار تو خشنود باشی و ما رستگار

#### In the Name of God

I am proud to celebrate the beginning of the tenth annual Congress on Breast Cancer, the tenth effort to update our understanding of breast cancer in Iran. Praise to the Lord for His blessings on the staff in Cancer Research Center to host the tenth annual Breast Cancer Congress owing to the sustained efforts of scientific and research institutions, and charitable organizations and individuals on February 25-27<sup>th</sup> in Imam Ali conference hall at Shahid Beheshti University of Medical Sciences. Not a single day has passed here at Cancer Research Center without honest endeavors of the staff to address scientific requirements of the medical society in this series of seminars. Happily, the seminar has grown stronger every year and has gained more support from national and international organizations and institutions.

The Tenth Congress contains 33 lectures, 20 workshops, 10 panels and a big gathering of cancer survivors. Those include the recent findings in cancer surgery, diagnosis, adjuvant treatments such as radiation-therapy and chemotherapy, epigenetic factors affecting cancer, and the latest biological issues of spiritual therapy. It is a comparison benchmark to assess the works of Iranian researchers with those of leading scientists from around the world resulting in profound understanding of the issues.

The tenth Congress receives 14 guest speakers from America, Austria, Belgium, Switzerland, Turkey, Italy and Oman sharing their valuable experiences in form of lectures and workshops. This year's Congress is also graced with the presence of international cancer management authorities to provide guidelines for executives in the country and enlighten the participants. The Cancer Research Center at Shahis Beheshti University of Medical Sciences will be honored to see you all in the 10<sup>th</sup> Annual Congress on Breast Cancer in Imam Ali conference hall.

Chairman Mohammad Esmail Akbari Prof of Surgical Oncology Cancer Research Center SBMU. Tehran Iran Feb 2015

## پیام دبیر کنگره

دکتر حمید رضا میرزایی

#### باسمه تعالى

به لطف و عنایت خداوند متعال دهمین کنگره بینالمللی سرطان پستان، با کوشش و تلاش اساتید محترم کمیته علمی و اجرایی و همه همکاران ارجمند مرکز تحقیقات سرطان دانشگاه علوم پزشکی شهید بهشتی برگزار می گردد.

سرطان پستان به عنوان شایعترین سرطان در بانوان کشور با افزایش بروز سالانه نزدیک ده هزار و جمعیت حدود یکصد هزار نفر مبتلا به این بیماری، خوشبختانه با میزان علاج ۲۰–۸۰٪ در مراحل اولیه، یکی از مهمترین مسائل حوزه سلامت محسوب میشود. با توجه به افزایش قابل تأمل بروز سالانه و هرم سنی به سمت بزرگسالی کشور، نیاز به فعالیتهای علمی و کارشناسی بررسی عوامل الگوی زندگی، تغذیه، فاکتورهای شغلی، هورمونی، خانوادگی، ژنتیکی، آلودگیهای زیست محیطی و.... حائز اهمیت است. برای پیشگیری و کنترل و درمان آن، نیازمند برنامهریزی مناسب جهت ایجاد زیر ساختارها و تعیین اهداف کوتاه مدت و بلند مدت نیاز ارتباطات هر چه بیشتر تمام رشتههای تخصصی و گردهمایی مشترک هدفمند را میطلبد.

این کنگره با همت اساتید مجرب و صاحبنظر رشتههای مختلف تخصصی و فوق تخصصی داخل و خارج از کشور برگزار میشود و تلاش دارد با ارائه الگوهای چند تخصصی زمینه همکاری گروهی و بین رشتهای را در درمان سرطانها بیش از پیش فراهم نموده و ضمن ارائه تحولات جدید و روشهای تشخیص و درمان نوین جهانی مانند رادیوتراپی حین عمل جراحی، تکنیکهای جدید بازسازی و حفظ ارگان و… با ارائه نتایج تحقیقات پژوهشگران نقاط مختلف جهان در قالب سخنرانی، Rapid Presentation، پوستر،کارگاههای متعدد

و… توجه خاصی را به امر تغذیه، طب سنتی، مسایل روانشناختی، گروه پزشکان عمومی، مراقبتهای پرستاری در پیدارد. سعی دارد از حضور محققین صاحب نظر بینالمللی و بویژه روسای دورهای انجمنهای ASCO وESMO به صورت سخنرانی و برگزاری کارگاههای علمی بهره گیرد. به نحوی که با توجه به مشکلات و هزینه بسیار زیاد برای اعزام متخصصین به خارج از کشور جهت دورههای آموزشی بتوان از اعزام بزرگواران بینیازشد و در این کنگره آموزشهای لازم داده شود.

ضمن خوش آمدگویی به شرکتکنندگان ارجمند، امیدوارم با حضور فعال همه گروهها جهت ارائه بهتر خدمت به بیماران و ملت عزیزمان قدم مناسبی برداشته شود. در پایان از همه همکاران گرانقدر و دلسوز مرکز تحقیقات سرطان و کمیته اجرایی که طی یکسال تحمل سختیها وبا تلاش مستمر، زحمات بسیار زیادی برای برگزاری کنگره کشیدهاند، تشکر و سپاسگزاری میکنم.

#### In the Name of God

By the grace of god, Tenth International Congress of breast cancer, with an attempt professors and the Executive Committee and all colleagues venerable Shahid Beheshti University of Medical Sciences Cancer Center will be held.

Breast cancer is the most common cancer in women, with an annual incidence of nearly ten thousand and a population of about one hundred thousand people with the disease, fortunately, the cure rate in the early stages 70-80% one as the most important issues health.Due to the significant increase in the annual incidence and reflection of the adult population pyramid, require expert scientific and life style factors, nutrition, occupational factors, hormones, family, genetic, and environmental pollution and ..... are important.

This Congress by experienced instructors and Technical experts from various fields within inside and outside the country to be held and attempts to model multi-disciplinary and interdisciplinary cooperation in the field of cancer treatment provided new developments and methods of diagnosis and treatment, including radiation during surgery, new techniques for restoring and maintaining the organ with the research results provide researchers around the world in the form of lectures, Rapid Presentation, posters, numerous workshops and ..... special attention to the nutrition, herbal medicine, psychological issues, general physicians, nursing care is sought.

Tries of the international experts and researchers, particularly heads of ASCO and ESMO Forum periodic lectures and workshops will be of interest.

While welcoming the participants, the almighty, I hope that with the active participation of all groups in order to provide better service to our patients and our nation has taken the appropriate steps. At the end of all great staff and caring Cancer Research Center and the Executive Committee of the hardships endured during one year of continuous effort, great efforts of the Congress put, thank you so much.

Dr Hamid Reza Mirzaei

Director of the 10th International Breast Cancer Congress



ارگان دهمین کنگره بینالمللی سرطان پستان 6-8 اسفند ماه ۱۳۹۳





Cancer Research Center مركز تعقيقات سرطان دانشگاههاوم يزشكي شهيد بهشتي

#### برگزار کننده :

مرکز تحقیقات سرطان دانشگاه علوم پزشکی شهید بهشتی

#### با همکاری :

- وزارت بهداشت، درمان و آموزش پزشکی
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      - انجمن أموزش پزشكى ايران
      - انجمن پزشکان عمومی ایران
- و با شرکت اساتید سخنران از ایران ،آمریکا، انگلستان ، ایتالیا، سوئیس، آلمان، بلژیک، اتریش، ترکیه، عمان،...

رئیس کنگره : دکتر محمد اسماعیل اکبری دبیر علمی کنگره : دکتر حمید رضا میرزایی مدیر کنگره : دکتر امیر شهرام یوسفی

#### اعضاي كميته علمي

اپیدمیولوژی و پزشکی اجتماعی دکتر مریم خیام زاده(**مدیر کمیته**) دکتر اذن ا... آذر گشب دكتر محسن اسدى لارى دكتر احورا احمدى دكتر ماندانا ابراهيمي دکتر حمید سوری دكتر محمد شريعتى دكتر شهير حقيقت دكتر فيليپ ديويس دكتر يداله محرابي دکتر علی منتظری دکتر فرشاد نجفی پور دكتر پروين ياورى دکتر ژاله محسنی فر دكتر محمد موحدى

> **پاتولوژی و آزمایشگاه** دکتر هانیه ژام<u>(مدیر کمیته)</u> دکتر شهلا مسعود دکتر مسلم بهادری دکتر حسین برومند

### جراحى

روان پزشکی و روانشناسی

دکتر نجاتی صفا راديولوژي دکتر مرتضی صانعی طاهری(مدیر کمیته) دکتر نسرین احمدی نژاد دكتر شهرام اخلاق يور دكتر نوشين بهبودي مقدم دكتر ليلا بيانى دکتر تکتم بهشتیان دکتر مارینا یور افکاری دکتر هدیه ساغری دكتر جلال جلال شكوهى دكتر احمد حاجيان دكتر حميد رضا حقيقت خواه دکتر محمد هادی خرازی دکتر کليفورد هاديس دکتر سعید راد دكتر سوفيا صبورى دکتر دنیا فرخ دکتر فریور فرزانه دکتر علی اکبر عامری دکتر مژگان کلانتری دكتر الهام كشاورز دکتر ناهید کمانگری دكتر معصومه گيتي دكتر داريوش هندسي دکتر عباس هنر بخش دكتر معصومه سلامتي دكتر عبدالرسول صداقت دکتر ناهید صدیقی دكتر خديجه بخت آور

دکتر فیروزه احمدی دکتر فرزانه فتاحی دکتر حسین قناعتی دکتر احمد رضا طهماسب پور دکتر مریم رحمانی دکتر مریم نوری

راديوتراپي آنکولوژي دکتر امیر شهرام یوسفی(مدیر کمیته) دکتر فریبا اسراری- آمریکا دكتر روبرتو ارچيا- ايتاليا دکتر فرناز آموزگار هاشمی دکتر سید امیر آل داوود دکتر فرشید اربابی(مدیر کمیته پزشکان عمومی) دكتر سميرا ازقندى دكتر سعيد الماسي دکتر رباب انبیایی دکتر شادی بابازاده دكتر مارتين ييكارت دكتر مينا تجويدي دكتر جواد ثعلبيان دکتر عطا ا... جهانگیر راد دکتر پیمان حداد دکتر رضا خدابخشی دكتر پرستو حاجيان دكتر حميدرضا دهقان منشارى دكتر مهناز رعايايي دکتر افشین , خشا دکتر ژاکوب زی-هلند

زنان و زايمان دکتر لادن آجری دكتر مريم افراخته دكتر حشمت اله ازهر دكتر افسانه آقا زاده نائينى دكتر رضوان اعلمي هرندى دكتر بلقيس اولادى دكتر عصمت باروتي دکتر نادره بهتاش دکتر علی حسینی دكتر فاطمه خشتى دکتر زهره شاهوردی دكتر مليحه عرب دكتر فرح فرزانه دکتر ربابه طاهری پناه دكتر معصومه فلاحيان دكتر احمد عبالحفيض (مصر) دکتر پریچهر کیمیائی دکتر میترا مدرس گیلانی دكتر شهين دخت مولاوردى دكتر مرضيه وحيد دستجردي دكتر جعفر نصوحى

## ژنتیک دکتر ساناز طبرستانی (مدیر کمیته) دکتر سیروس زینعلی دکتر ابوالفضل موفق دکتر ناصر پارسا دکتر حمید خرم خورشید دکتر سید حسن مقدم نیا دکتر سید حسن مقدم نیا دکتر شرلی هودسن دکتر فرا یاسایی دکتر ندا منصوری دکتر کیوان مجید زاده دکتر حسین نجم آبادی

## **طب فیزیکی و توان بخشی** دکتر داریوش الیاس پور دکتر محمد حسن بهرامی دکتر سید منصور رایگانی لیلا انگوتی

## **فیزیک پزشکی** دکتر سید ربیع مهدوی(**مدیر کمیته**) دکتر محمود رضا آقامیری دکتر عظیم اربابی دکتر محسن بخشنده دکتر علی جباری ارفعی دکتر علی منفرد

دکتر اصغر مصباح دکتر علیرضا شیرازی دکتر امین مصلح شیرازی دکتر خدیجه اثنی عشری دکتر آته کرباس فروشان دکتر احمد مستعار دکتر علی جباری

#### مامایی و پرستاری

دکتر مریم رسولی(**مدیر کمیته**) دکتر فروزان آتش زاده شوریده خانم مژگان انصاری دكتر مهناز ايلخاني دکتر سپیدہ حاجیان خانم ليلا خانعلى مجن خانم طاهره السادات خوب بين خوش نظر دكتر ماهرخ دولتيان دكتر كامليا روحاني دكتر منصوره زاغري تفرشي خانم اعظم شيرين آبادي فراهاني دکتر عباس عباس زادہ خانم فاطمه علايي كرهرودي خانم آناهيتا معصوم پور دكتر فاطمه ناهيدي شهناز نعمتی دهکردی خانم منيژه نوريان دکتر لیدا نیک فرید دکتر گیتی از گلی دكتر زهرا بهبودي دکتر مهرنوش یازارگادی

#### هماتولوژی انکولوژی

#### تغذيه:

دکتر سید حسین داوودی (مدیر کمیته) دکتر مرجان عجمی دکتر مرتضی عبدالهی دکتر حمید پازوکی طرودی دکتر رضا همایونفر

## **طب سنتی:** دکتر حسین رضایی زاده دکتر ناصر رضایی پور

## دبیر اجرایی: دکتر محمد هادی زاده مدیر روابط بین الملل: دکتر ناهید نفیسی مدیران اجرایی : آزاده خردمند، شهرزاد شمیرانی

#### اعضاي كميته اجرايي

(به ترتيب حروف الفبا):

حسين اكبرى زهرا بختيارى سید مهدی برازی دكتر افسون تقوى پگاه خندان الهام رحمانى موسی رشیدی سميه ذوقي پور الهام سه طاقيان شهرزاد شمیرانی زينب عليئى ساجدہ علی محمدی خاتون كريمى دکتر علی اصغر کرامتی نیا دکتر گوهر محمدی راحله مرادپور محمد مرادی جو فرهاد مشفق دكتر الهه نوشين فر

با تشكر از :

- وزارت محترم بهداشت درمان و آموزش پزشکی
  - سازمان بهداشت جهانی دفتر تهران
- دفتر صندوق جمعیت ملل متحد در ایران UNFPA
  - وزارت محترم امور خارجه جمهوری اسلامی ایران
  - ریاست محترم دانشگاه علوم پزشکی شهید بهشتی
- معاونت محترم پژوهشی دانشگاه علوم پزشکی شهید بهشتی
- معاونت محترم أموزشي دانشگاه علوم پزشكي شهيد بهشتي
- کلیه انجمنهای علمی و سازمانهای مردم نهاد مرتبط با سرطان پستان
- دفتر روابط بینالملل و امور سمینارهای دانشگاه علوم پزشکی شهید بهشتی
  - دفتر آموزش مداوم دانشگاه علوم پزشکی شهید بهشتی
    - حراست محترم دانشگاه علوم پزشکی شهید بهشتی
  - واحد محترم سمعی بصری دانشگاه علوم پزشکی شهید بهشتی
    - امور تداركات دانشگاه علوم پزشكى شهيد بهشتى
- کلیه نهادها و شرکتهای دارویی و تجهیزاتی که در این کنگره ما را همراهی نمودهاند

# برنامه روزانه

دهمین کنگره بینالمللی سرطان پستان

(وزیر بهداشت درمان و آموزش پزشکی)

دکتر ایرج حریرچی (قائم مقام وزیر بهداشت درمان و آموزش پزشکی)

دکتر گری لوییس

روز اول : چهارشنبه ۶ اسفند ماه ۱۳۹۳ نشست اول دهمین کنگره بین المللی سرطان پستان (سالن اصلی)			
سخنران	عنوان سخنرانی	ساعت	د رانی
بد	سرود جمهوری اسلامی و تلاوت قران مجی	<b>λ:• •</b> – <b>λ:•</b> ۵	
دکتر حمید رضا میرزایی	افتتاحيه (دبير همايش)	λ:•۵−λ:۱•	
	افتتاحيه	<b>λ:۱۰</b> -λ:۲۰	
دکتر محمد اسماعیل اکبری	(استاد دانشگاه، رئیس مرکز تحقیقات		
	سرطان و رئیس کنگره)		
	افتتاحيه	۸:۲۰-۸:۳۰	
دکتر علی اصغر پیوندی	(رئیس دانشگاه علوم پزشکی شهید بهشتی)		
دکتر حسن قاضی زاده هاشمی		۸:۳۰-۸:۴۰	

افتتاحيه

(وزیر بهداشت، درمان و آموزش پزشکی)

وضعیت سرطان پستان در شرق

کد

01-01

۸:۴۰-۹:۰۰

(نماینده سازمان ملل درایران)	مديترانه		
<b>هیأت رئیسه:</b> دکتر سیاوش صحت ، دکتر منوچهر دوایی، دکتر علی اکبر عامری،			
	نر جلال جلال شکوهی،دکتر علی عبدالهی	دكت	
دکتر فیلیپ دیویس (Director General European Breast &Cervical Cancer Association)	Aspect of breast cancer screening and prevention in Europe	9:••-9:7•	O1-02
دکتر هدیه ساغری (رادیولوژیست –آمریکا)	Breast Biopsies : Practical Tips and Controversies	9:7+-9:4+	O1-03
دکتر محمد رضا کشتگر (جراح-انگلستان)	Minimally invasive approaches in diagnosis and treatment of Breast Cancer	9:40-10:00	O1-04
دكترفريد معين فر (پاتولوژيست⊣تريش)	Molecular prognostic/predictive factors in breast cancer: a critical review	\•:••- \•:\•	O1-05
دکتر سیدحسین داودی (تغذیه⊣یران)	چاقی و سرطان پستان	۱۰:۱۰=۱۰:۲۰	O1-06
دکتر عدیل العجمی (جراح-عمان)	Breast cancer in Oman	۲۰:۲۰-۱۰:۳۰	O1-07
دکتر مهران حبیبی (جراح-آمریکا)	Management strategy in high risk patient for breast Cancer	1•:٣•=11:••	O1-08
	استراحت	)):••–))	: * •

برنامه روزانه دهمين كنگره بينالمللي سرطان پستان

روز اول : چهارشنبه ۶ اسفند ماه ۱۳۹۳ نشست دوم			
سخنران	<b>کنگره بین المللی سرطان پستان (سالن اصلی)</b> عنوان سخنرانی	<b>دهمین</b> ساعت	کد سخنرانی
دکتر رامین موسوی،	بد رضا نیک شعار، دکتر سید رضا موسوی، د	ت <b>رئیسه :</b> دکتر محم	هيأه
	علیرضا شیرازی، دکتر محمد جعفر فروهش	دكتر	
دکتر سید ربیع مهدوی (فیزیست⊣یران)	Assessment of flatness and Symmetry of intraoperative radiotherapy beam fields by radio chromic EBT-2 films	11:7•-11:2•	O2-01
دکترمارتین پیکارت (مدیکال آنکولوژی-بلژیک)	Neoadjuvant in Triple Negative Breast cancer	11:00-17:10	O2-02
Management of	بانل: Axilla at neo adjuvant setting		
	<b>گرداننده پانل:</b> دکترمحمد رضا کشتگر <b>اعضاء پانل</b> :		
به الفت بخش،	جراح:دکتر جلالدین خوشنویس، دکتر آسب		
فرد	دکتر مهران حبیبی، دکتر فرزانه ابراهیمی	17.118.1.	
فوام نصیری،	<b>رادیوتراپی آنکولوژی:</b> دکتر محمد رضا ه	11:1+=11:1+	-
	دکتر حسین فودازی، دکتر مارتین پیکارت		
	<b>رادیولوژیست:</b> دکتر معصومه گیتی		
	<b>پاتولوژیست</b> :دکتر ژاله محسنی فر		
ى	<b>پزشکی هسته ای</b> :دکتر سید قاسم رضیع		
	<b>هماتولوژی آنکولوژی</b> : دکتر مهدی تبرائ <sub>و</sub>		
	نهار	۱۳:۱۰-۱۴	:••

# روز اول: چهارشنبه ۶ اسفند ماه ۱۳۹۳ نشست سوم

دهمین کنگره بینالمللی سرطان پستان (سالن اصلی)

سخنران	عنوان سخنرانی	ساعت	کد سخنرانی
	e: Multicentre disease and BCT <b>گرداننده:</b> دکتر امیر محمد عارف پور( را		
یرمالک، دکتر مجید حیدری،	<b>جراح:</b> دکترژیان فرهادی، دکتر عباس م		
	دکتر محمد مظفر	14:••-14:40	-
	<b>رادیوتراپی آنکولوژی</b> : دکترپیمان حد		
	<b>هماتولوژی آنکولوژی</b> : دکتر مجتبی قد		
(1	عطاریان <b>ژنتیک</b> : دکتر ناصر پارسا (آمریک		
بايى،دكتر عليرضا خلج،	ود شفاهی،دکتر علی سیفی،دکتر پرویز در	<b>، رئیسه:</b> دکتر محمو	هيات
صديق	اد بهلولی،دکتر مسعود وکیلی، دکتر حسن	دکتر مهرد	
دکتر هدیه ساغری (رادیولوژیست –آمریکا)	Ultrasound of the Breast Practical Points and What to do	۱۴:۴۵-۱۵:۰۵	O3-01
دكتر ميكائيل هرمن (مولكولار بايولوژى_بلژيک)	Towards Personalized treatment using next gen sequencing and molecular pathology in breast cancer for	10:0-10:70	O3-02
دکتر مریم نخجوانی (داروساز-ایران)	Breast Cancer Cells Reaction to Serum Starvation and Steroid Restriction	10:70-10:80	O3-03
پاترشیا فوبر (روانپزشک -آمریکا)	The importance of psychosocial oncology in quality of life after cancer	10:40-18:••	O3-04
	پانل: غربالگری در سرطان پستان		
	<b>گردانندہ:</b> دکتر محمد اسماعیل اکبری		
دوی، دکتـر ایـرج حریرچـی،	<b>اعضا:</b> دکتر محمد رضا واعظ مهـ	18:••-18:••	O3-05
مطلـق،دكتر مـريم خيـامزاده،	دكتر فيليپ ديويس، دكتر على قنبـرى		
دكتر مريم طباطبايي	دكتر شهپر حقيقت، سودابه احمد زاده،		

برنامه روزانه دهمين كنگره بينالمللي سرطان پستان

## روز دوم: پنجشنبه ۷ اسفند ماه ۱۳۹۳ نشست اول

دهمین کنگره بین المللی سرطان پستان(سالن اصلی)

سخنران	عنوان سخنرانی	ساعت	کد سخنرانی
دکتر سید محسن تولیت،	رحمانی، دکتر سید محمد ربیع هاشمی،	<b>یسه :</b> دکتر شهریار	هیات رئ
، دکتر سپیده حاجیان،	، دكتر احمد حاجيان، دكتر سعيد الماسى،	عليرضا ظهيرالدين	دكتر
شمس	مد مهدی ادیب سرشکی، دکتر جلاالدین	دکترمح	
دکتر مهران حبیبی (جراح_آمریکا)	what should we do in positive sentinel node?	۸:۳۰-۸:۵۰	O4-01
پاتریشیا فوبر (روانپزشک⊣مریکا)	Helping patients cope with loss of controlintroducing the Coping Engine	٨:۵٠ –٩:٠٠	O4-03
دكتر كلارويك هاديس ( مديكال آنكولوژي ⊣مريكا)	Optimal use of anti-HER2 agents for early stage breast cancer	9:••-9:7•	O4-04
دكتر ماريزيو ناوا (جراح⊣يتاليا)	Breast oncoplastic Surgery / my 25 years experience.	۹:۲۰–۹:۴۰	O4-05
دکتر محمد رضا کشتگر (جراح-انگلستان)	Empowering patients in the decision making process for Breast Cancer Surgery: PICTURE European Trial	9:40-10:00	O4-06
	پرسش و پاسخ	1•:••-1•:۲•	O4-07
استراحت		۱۰:۲۰ – ۱	۱:۰۰

روز دوم : پنجشنبه ۷ اسفند ماه ۱۳۹۳ نشست دوم			
ی)	همین کنگره بین المللی سرطان پستان(سالن اصا 	33 	کد
سخنران	عنوان سخنرانی	ساعت	سخنرانی
دات علوی سفی، دکتر احمد عامری،	پانل: سر البنای بانل: محمد هادیزاده(جراح) مرداننده پانل:دکتر محمد هادیزاده(جراح) اعضاء پانل: مراح: دکتر خسرو ایازی، دکتر نسرین السا مرادیوتراپی آنکولوژی:دکتر امیر شهرام یو دکتر گودرز مزدائی هماتولوژی آنکولوژی: دکتر فاضل الهی پاتولوژیست:دکتر میسا احدی پاتولوژیست:دکتر میسا احدی مرادیولوژیست:دکتر مریم نوری کاشانیا مرادیولوژیست:دکتر مریم نوری مرادیولوژیست:دکتر میسا احدی مرادیولوژیست:دکتر میسا احدی مرادیولوژیست:دکتر میسا احدی مرادیولوژیست:دکتر میسا احدی مرادیولوژیست:دکتر میسا دکتر فاضل الهی مرادیولوژیست:دکتر میسا دریم مرادیولوژیست:دکتر میسا دریم مرادیولوژیست:دکتر میسا دریم مرادیولوژیست:دکتر میسا دریم مرادیولوژی میسا دریم مرادیولوژی آنکولوژی دکتر فاضل الهری	11:••-17:••	_
، مرتضی موسوی نائینی،	خدابخشی، دکتر منوچهر سرداری، دکتر سید	<b>رئیسە:</b> دکتر رضا	ھيات
	دكتر على واحدى،دكتر منصور جدلى زاده		
دکتر کلارویک هادیس (مدیکال آنکولوژی ⊣مریکا)	Palliative chemotherapy for TNBC	17:••-17:7•	O5-01
دکتر فیلیپ دیویس (Director General European Breast &Cervical Cancer Association)	The process by which effective organized screening programs can be implemented in countries where they currently use opportunistic screening or have no screening at all,	17:70-17:80	O5-02
ار	استراحت و نه	17:40-11	·

برنامه روزانه دهمین کنگره بینالمللی سرطان پستان

روز دوم :پنجشنبه ۷ اسفند ماه ۱۳۹۳: نشست سوم			
	همین کنگره بینالمللی سرطان پستان(سالن اصلی)	3	
سخنران	عنوان سخنرانی	ساعت	کد سخنرانی
اده ، دکتر پدرام فدوی ر فریبرز مکاریان	of systemic treatment in Breast Cancer گرداننده:دکترمحمد هوشیاری رادیوتراپی آنکولوژی : دکتر سید حسن یحیی ز جراح:دکتر معصومه نجفی،دکتر عادل یزدان خواه هماتولوژی آنکولوژی : دکتر جهانگیر رافت، دکت پاتولوژیست:دکتر علی حسامی پاتل :گراند راند رادیولوژژ اعضاء پاتل :	18:20-16:10	
حمانی، دکتر ناهید ثریا سلمانیان سوانی،دکتر محمد جهان	جراح: دکتر آزاده جولایی، دکتر فریدون سیرتی، د رادیولوژیست:دکتر مژگان کلانتری، دکتر مریم ر صدیقی، دکتر افسانه علی خاصی رادیوتراپی آنکولوژی: دکتر فاطمه همایی، دکتر هماتولوژی آنکولوژی:دکترحمید رضا رخ	14:10-10:80	
ى	<b>ئیسہ:</b> دکتر آرش محمدی توفیق، دکتر فرشته کمان	هیات ر	
دکتر مرتضی صانعی طاهری (رادیولوژیست⊣یران)	Synchrotron Mammography	12:20-12:60	O6-01
دکتر هدیه ساغری (رادیولوژی- آمریکا)	3D Breast Imaging: New Innovation	10:40-18:00	O6-02
لترسپیده امیدواری، وزیری	پانل:مسائل روانشناختی در سرطان پستان گرداننده: دکتر محمد اسماعیل اکبری اعضاء پانل: روانپزشک: دکتر احمد علی نوربالا، دکتر علی منتظری، دکتر طاهره کرمانی رنجبر، دک دکتر علی اکبر نجاتی صفا، دکتر پاتریشیا فوبیر روانشناس: دکتر فرح لطفی کاشانی، دکتر شهرام جراح: دکتر عصمت السادات هاشمی هماتولوژی آنکولوژی: دکتر علی اخوتیان، دکتر رادیوتراپی آنکولوژی: دکتر رباب انبیایی	18:••-14:8•	

۶-۸ اسفند ماه ۱۳۹۳

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روز سوم : جمعه ۸ اسفند ماه ۱۳۹۳ نشست اول دهمین کنگره بین المللی سرطان پستان(سالن اصلی)			
سخنران	عنوان سخنرانی	ساعت	کد سخنرانی
	تر محمد شریعتی، دکتر حسین دارآفرین،دک	-	
	ی، دکتر منوچهر کیهانی،دکتر حسین الماس <u>ی</u>	مصطفی خرم شاہے	دکتر ه
دکتر داریوش هندسی (رادیولوژیست-آمریکا)	Screening for breast cancer managements plan proposal for Iranian social security	<b>λ:••</b> -λ:۱•	O7-01
دکتر امیر نوروزی	Cost saving in Armed forces insurance Organization without Sacrificing the Quality of Care	λ:۱۰-λ:۲۰	O7-02
انیس اوزیار (رادیوتراپی آنکولوژی-ترکیه)	The role of intraoperative radiotherapy in early stage breast cancer".	۸:۲۰-۸:۴۰	O7-03
بنیامین کالپین (رادیوتراپی آنکولوژی-ترکیه)	Accelerated partial Hyper fractionated Radiotherapy in breast cancer	٨:۴٠-٩:٠٠	O7-04
دکتر فرشید اربابی (رادیوتراپی آنکولوژی⊣یران)	chemotherapy for HER-2 Positive MBC	٩:• •-٩:١ •	O7-05
پاتریشیا فوبر (روانپزشک-امریکا)	Group therapy with cancer patients as an important aspect of psychosocial support	۹:۱۰–۹:۳۰	O7-06
آيناز تاجدينی (تغذيه-ايران)	Periodic foods in association with plasma levels of IGF-1 and IGFBP-3 in breast cancer patients	۹:۳۰–۹:۴۰	O7-07
دکتر ماریزیو ناوا (جراح⊣یتالیا)	Conservative Mastectomies	9:40-10:00	O7-08
دکترعلیرضا پاسدار (ژنتیک-ایران)	Relation between smoking or narcotics abuse and the recurrence of breast cancer in patients referred to an oncology clinic in Mashhad	1 • :• • - 1 • : 1 •	O7-09
۱۰:۱۰-۱۰:۳۰ استراحت			

برنامه روزانه دهمین کنگره بینالمللی سرطان پستان

روز سوم : جمعه ۸ اسفند ماه ۱۳۹۳ نشست دوم			
(/	ره بین المللی سرطان پستان(سالن اصلی	دهمین کنگ	
سخنران	عنوان سخنرانی	ساعت	کد سخنرانی
ل طالعی دکتر محمد هاشمی یی، دکتر مونا ملکزاده	ل:ole of IORT in Breast cancer داننده: دکتر ناهید نفیسی ضاءپانل: اح:دکتر مرتضی عطری،دکتر منصوره گری،دکترمحمدرضامیر،دکتر عبدالرسو ولوژیست: دکتر پیمان محمد تربتی، م یولوژیست: دکتر پیمان محمد تربتی، م یوتراپی آنکولوژی:دکتر احمد مصلا اتولوژی آنکولوژی: دکتر نعمت اله ر	گر اعد جر احج انځا ایت اراد راد	
دکتر جعفر اکبری،	مجیر شیبانی،دکتر سید ربیع مهدوی، دکتر ماندانا ابراهیمی	<b>يات رئيسە</b> :دكتر خسرو	ھ
دکتر فريد معين فر (پاتولوژيست⊣تريش)	Assessments of resection margins in breast-conserving surgery	g 11:80-11:80	O8-01
دكتر ماريزيو ناوا (جراح⊣يتاليا)	Reconstruction and radiotherapy	11:40-17:••	O8-02
جراح) مدی، دکتر فاطمه توکلی، تمدی، دکتراحمدکاویانی، تانه صانعی، ه اصفهانی،دکتر علی مقدم	Debate: جراحی پستان در سرطان پستا گرداننده:دکتر ابوالفضل افشارفرد( جراح: دکتر محمد رضا کلانتر معت دکتر بهزاد رحمانی،دکتر ماندانا مع دکتر مصطفی حسینی دکتر فرناز آموزگار هاشمی هماتولوژی آنکولوژی:دکتر فاطم پاتولوژیست: دکترمریم کدیور	17:••-18:••	_
به	اختتامي		

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Day 1: Wednesday, 25 Feb 2015			
speaker	Title	Time	Speech code
National Anthem &	Recitation of Holy Quran	8:00-8:05	
Dr.H.R.Mirzaei	Opening Remarks (Director of Congress)	8:05-8:10	
Dr.M.E.Akbari	Opening Remarks (president of congress)	8:10-8:20	
D.A.A.Paivandi	Opening Remarks (chancellor of SBMU)	8:20-8:30	O1-01
Dr.H.Ghazi zadeh hashemi Dr.Iraj Harirchi	Opening Remarks(Minister of Health and Medical Education)	8:30-8:50	
Dr. Gary Lewis (UN)	Situation of Breast Cancer in the Eastern Mediterranean	8:50-9:00	
	r.M. Davaei, Dr.A. Ameri, Dr.J. J	ala Shokohi,Dr.A.Abdo	olahi
Dr.F.Davis (Director General European Cervical CancerAssociation)	Aspect of breast cancer screening and prevention in Europe	9:00-9:20	O1-02
Dr.H.Saghari (Radiologist-USA)	Breast Biopsies : Practical Tips and Controversies	9:20-9:40	O1-03
Dr.M.R.Keshtgar (surgeon - UK)	Minimally invasive approaches in diagnosis and treatment of Breast Cancer	9:40-10:00	O1-04
Dr.F. Moinfar (Pathologist- Austria)	Molecular prognostic/predictive factors in breast cancer: a critical review	10:00-10:10	O1-05
Dr.S.H.Davoodi (Nutritionist-Iran)	Obesity and Breast Cancer	10:10-10:20	O1-06
Dr.A.Alajami (surgeon-Oman)	Breast cancer in Oman	10:20-10:30	O1-07
Dr.M.Habibi (surgeon-USA)	Management strategy in high risk patient for breast Cancer	10:30-11:00	O1-08
В	reak and Snak	11:00-11:30	

## Day 1: Wednesday, 25 Feb 2015

برنامه روزانه دهمين كنگره بينالمللي سرطان پستان

Day 1. Weunesuay, 25 Feb 2015				
speaker	Title	Tim	ie	Speech code
<b>Chairmen</b> : Dr.M.R.Nikshoar, Dr	hirazi, Dr	.M.J.F	orohesh	
Dr.S.R.Mahdavi (physisisit-iran)	Assessment of flatness and Symmetry of intraoperative radiotherapy beam fields by radio chromic EBT-2 films	11:30-1	1:50	O2-01
Dr.M Piccart ( Medical Oncology- Belgium)	Neoadjuvant in Triple Negative Breast Cancer	11:50-1	2:10	O2-02
adjuvant Setting. Director: Dr.M.R.Kh Members: Surgeon:Dr.J.Khosh Dr.F.Ebrahimifard Radiation Oncologis Dr.M.R.Ghavamnasir Radiologist: Dr.M.Gi Nuclear Medicine: D Pathologist: Dr.J.Mo	nevis,Dr.Olfatbakhsh,Dr.M.Habibi, t: y,Dr.H.Fodazi, Dr.M Piccart ti vr.S.Gh.Raziei hsenifar	12:30-1	3:30	-
Hematologist Oncologist: Dr.M.Tabaraei Lunch and Break			13	:30-14:30

#### Day 1: Wednesday, 25 Feb 2015

speaker	Title	Time	Speech code
Debate: Multicentric di			
Director: Dr.A.M.Arefpo			
0	r.A,Mirmalek,Dr.M.heidari,		
Dr.M.Mozafar		14:30-14:45	-
	Dr.A.Rakhasha, Dr.p.Hadad		
	st:Dr.M.Ghadyani,Dr.H.Atarian		
Genetics:Dr.N.Parsa (US	DA)		
Chairmen:			
Dr.M.Shafahi, Dr.A.Saifi Dr.P.Darwagi	Dr A Khalai Dr M Dahlali Dr MA	Voluili Dr II Cadiat	:
	Dr.A.Khalaj,Dr.M.Bohloli,Dr.M. Ultrasound of the Breast	vakin,Dr.H.Sedign	O3-01
Dr.H.Saghari ( Radiologist- USA)	Practical Points and What to	14:45-15:05	03-01
(Radiologist-USA)	do	14.45-15.05	
	Towards Personalized		03-02
Dr.M. Herman	treatment using next gen		03-02
(molecular biology-	sequencing and molecular	15:05-15:25	
Belgium)	pathology in breast cancer		
Dr.M.Nakhjavani	Breast Cancer Cells Reaction		03-03
(Pharmacist-Iran)	to Serum Starvation and		05 05
(1 11411140150 11411)	Steroid Restriction	15:25-15:45	
	~		
Dr.P.Fobair	The importance of		03-04
(Psychiatrics-USA)	psychosocial oncology in	15:45-16:00	0.5 04
(i sychiaties OSH)	quality of life after cancer	15.15 10.00	
Panel discussion: Scree			
Director:Dr.M.E.Akbari			
Members:			
	r.I.Harirchi,Dr.Ph.Davis,		O3-05
Dr.A.Ghanbari Motlagh,		16:00-17:00	
Dr.SH.Haghighat,	· · · · · · · · · · · · · · · · · · ·		
S.Ahmadzadeh- Dr.M.Ta	hatahaai		1

#### Day 1: Wednesday, 25 Feb 2015

Day 2. Thursday 20 reb 2015						
speaker	Title	Time	Speech code			
	Chairmen: Dr.SH.Rahmani, Dr.S.M.R.Hashemi, Dr.S.M.Toliat, Dr.A.Hajian, Dr.A.R.Zahirodin, Dr.S.Almasi, Dr.S.Hajian, Dr.M.M.A.Sereshki, Dr.J.Shams					
Dr.M.Habibi (Surgeon-USA)	what should we do in positive sentinel node?	8:30-8:50	O4-01			
Dr.P.Fobair (Psychiatrics-USA)	Helping patients cope with loss of controlintroducing the Coping Engine	8:50-9:00	O4-02			
Dr.C.Hudis ( Medical Oncology -USA)	Optimal use of anti-HER2 agents for early stage breast cancer	9:00-9:20	O4-03			
Dr.M.Nava (Surgeon-Italy)	Breast oncoplastic Surgery / my 25 years experience.	9:20-9:40	O4-04			
Dr.M.R.Keshtgar (Surgeon –UK)	Empowering patients in the decision making process for Breast Cancer Surgery: PICTURE European Trial	9:40-10:00	O4-05			
Questions and Answers 10:00-10:20 O4			O4-06			
В	10:20-2	11:00				

#### Day 2: Thursday 26 Feb 2015

۸–۶ اسفند ماه ۱۳۹۳

Day 2: Thursday 26 Feb 2015				
speaker	Title	Time	Speech code	
Panel discussion: Breast co and Fertility consulting in y Director:M.Hadizadeh (surg Members: surgeon:Dr.Kh.Ayazi,Dr. Dr Radiation Oncologist:Dr.A. Dr.A.Ameri.Dr.G.Mazdaei Hematologist Oncologist:Dr Pathologist:Dr.M.Ahadi Radiologist:Dr.M.Noori Female surgeon (Infertility Dr.R.Taheripanah, Dr.A.Mol Genetics: Dr.S.Tabarestani	oung patients geon) r.N.S.Alavi Sh.yusefi, r.F.Elahi ):Dr.M.Kashanian,	11:00-12:00		
Chairmen: Dr.R.khodabakhshi, Dr.M.Sa Dr.M.Jadalizadeh	ardari, Dr.S.M.Mosavinaeini,	Dr.A.Vahedi,		
Dr.C.Hudis (Medical Oncology -USA)	Palliative chemotherapy for TNBC	12:00-12:20	O5-01	
Dr.F.Davis (Director General European Cervical CancerAssociation)	The process by which effective organised screening programs can be implemented in countries where they currently use opportunistic screening or have no screening at all	12:20-12:40	O5-02	
Lunch an	d Break	12:40-13	30	

#### Day 2: Thursday 26 Feb 2015

Speech

# Day 2: Thursday 26 Feb 2015 speaker Title Time e: Omission of systemic treatment in Games Games

speaker	Title	Time	code
Debate: Omission of sys	stemic treatment in		
Breast Cance			
Director:Dr.M.Hoshyari			
Surgeon:Dr.M.Najafi,Dr.	13:30-14:15	-	
<b>Radiation Oncologist:</b> D	Radiation Oncologist: Dr.S.H.Yahyazadeh,		
Dr.F.Mokarian	-		
Hematologist Oncologis	<b>t:</b> Dr.J.Rafat,		
Dr.F.Mokarian			
Pathologist:Dr.A.Hesami	i		
Panel discussion: Radio	ogy Grand Rounds		
Director: Dr.N.Ahmadun	ejad		
Members:			
	F.Seirati,Dr.M.Tabatabaei		
Radiologist:Dr.M.Kalant		14 15 15 20	
Dr.N.Sedighi, Dr.A.Aikha	asi	14:15-15:30	-
Radiation			
Oncologist:Dr.F.Homaei,			
Hematologist Oncologis	t: Dr.H.R.Rezvani,		
Dr.M.Jahani			
Chairmen: Dr.A.Moham	adi Tofigh, Dr.F.Kamani		
Dr.M.Saneietaheri	Synchrotron	15.20 15.40	06-01
(Radiologis-Iran)	Mammography	15:30-15:40	
Dr.Saghari	3D Breast Imaging: New		O6-02
(Radiation-USA)	Innovation	15:40-16:00	
Panel discussion: Psycho	ological issues in breast		
cancer			
Director: Dr.M.E.Akbari			
Members:	1		
Psychiatrist:Dr.A.Nourb	ala, Dr.J.Bolhari,	16:00-17:30	
Dr.A.Montazeri,			
Dr.S.Omidvari,Dr.A.A.N			
Dr.T.Kermaniranjabar			
<b>Psychologist</b> :Dr.F.Lotfi Kashani,Dr.Sh.Vaziri			
Surgeon:Dr.E.S.Hashemi Radiation Oncologist:Dr.R.Anbiaei			
Hematologist Oncologist Dr.A.Okhovatian,Dr.F.M			
DI.A.OKIIOVatian, Dr.F.M	okanali		

Day 3: Friday 27 Feb 2015					
speaker	Title	Time	Speech code		
Chairmen:					
Dr.M.S.hariati, Dr.H	I.Darafarin, Dr.H.Peyvandi, Dr.	M.Khoramshahi,			
	I.Almasi, Dr.H.Eftekhari				
Dr.D.Hendesi	Screening for breast cancer	8:00-8:10			
(Radiologist-USA)	managements plan proposal for Iranian social security		O7-01		
	Cost saving in Armed	8:10-8:20			
	forces insurance	0.10-0.20			
Dr.A.Norozi	Organization without		O7-02		
DIMENTOIOLI	Sacrificing the Quality of		07 02		
	Care				
Dr.E. Ozyar	The role of intraoperative	8:20-8:40			
(Radiation	radiotherapy in early stage		07-03		
Oncologi- Turkey)	breast cancer				
Dr.B. kalpln	Accelerated partial Hyper				
(Radiation	fractionated Radiotherapy	8:40-9:00	O7-04		
Oncologi- Turkey)	in breast cancer				
Dr.F.Arbabi	chemotherapy for HER-2	9:00-9:10			
(Radiation	Positive MBC		O7-05		
Oncologi-Iran)					
	Group therapy with cancer	9:10-9:30			
Dr.P.Fobair	patients as an important		O7-06		
(Psychiatrics-USA)	aspect of psychosocial		07.00		
	support				
	Periodic foods in	9:30-9:40			
Dr.A.Tagedini	association with plasma		O7-07		
(Nutritionist-Iran)	levels of IGF-1 and IGFBP-				
	3 in breast cancer	0.40.0.40			
Dr.M.Nava	Conservative Mastectomies	9:40-9:10	O7-08		
(surgeon-Italy)		10.00.10.10			
	Relation between smoking or narcotics abuse and the	10:00-10:10			
Dr.A.R.Pasdar	or narcotics abuse and the recurrence of breast cancer		O7-09		
(Genetics-Iran)			07-09		
	in patients referred to an oncology clinic in Mashhad				
Bro	ak and Snak	10:10-10:30			
Ble	ak and Shak	10.10-10.50			

#### Day 3: Friday 27 Feb 2015

برنامه روزانه دهمين كنگره بينالمللي سرطان پستان

# Day 3: Friday 27 Feb 2015

peaker	Title	Time	Speech	
-	e role of IORT in Breast		code	
	le role of IOK1 in Breast			
<b>Director</b> : Dr.N.Nafis	cancer Directory Dr. N. Nofici			
Members:	1			
	Dr.M.Akhgari, Dr.M.R.Mir,			
Dr.A.R.Talei	Distriction and gain, Distriction,			
	ohamadtorbati, Dr.M.Hashemi	10:30-11:30	_	
Radiologist: Dr.T.Ha				
Radiation Oncologis	e			
Dr.M.Malekzadeh	,			
Nuclear Medicine:D	r.M.Amouei			
Hematologist Oncol	ogist:			
Dr.N.Rostami, Dr.S.N				
Chairmen:	·			
Dr.Kh.M.Sheibani, D	r.S.R.Madavi, Dr.J.Akbari, Dr.M	.Ebrahimi		
Dr.F.Moinfar	Assessments of resection			
(Pathologist-	margins in breast-conserving	11:30-11:45	O8-01	
Austria)	surgery			
Dr.M.Nava	Reconstruction and	11 45 12 00		
(surgeon-Italy)	radiotherapy	11:45-12:00	O8-02	
Debate: Breast surg	ery in metastatic breast			
cancer with concurr	ent			
Director: Dr.A.Afsha	arfard,			
Members:				
Agrement: Dr.M.Ho				
Dr.M.Sanei(Radiation				
Disagrement:Dr.A.Kaviani(surgeon),Dr.F.Amozega				
r Hashemi( Radiation Oncologist )		12:00-13:00		
Surgeon: Dr.M.R.Ka				
Dr.B.Rahmani. Dr.M				
Dr.A.Kaviani				
Radiation Oncologist: Dr.M.Sanei				
Hematologist				
<b>Oncologist</b> :Dr.F.Esfahani,Dr.A.Moghadam				
Pathologist: Dr.M.K				
Closing				

#### برنامه روزانه Rapid Oral Presentation برنامه

روز دوم : پنجشنبه ۷ اسفندماه ۱۳۹۳

هیأت رئیسه : دکتر محمد هوشیاری ـ دکتر مهدی اسدی

ارائه دهنده	عنوان	کد	ساعت
آسيه الفت بخش	5 years study of patients with lactating adenoma and review of the literature	R2-01	λ:• • –λ:• ٣
شيوا كوره پز اصل	Study Prevalence of BRCA1/2 Common Mutations in East Azerbaijan Province, Iranian Breast Cancer Patients Using High Resolution DNA Melting Analysis	R2-02	۸:•۳ -۸:•۶
فرشته صافيان	Developmental competence of immature oocytes aspirated from antral follicles of ovarian cortex as a method for fertility preservation	R2-03	<b>λ:• ۶</b> — λ:• ۹
فاطمه مقدم تبریزی	Health-Promoting Lifestyle in Breast Cancer Survivors: In Relation to Depression and Social Support	R2-04	λ:• ۹ — λ:۱۲
عليرضا پاسدار	Correlation of Abortion with the Risk of Recurrence and Tumor Size in Breast Cancer Patients	R2-05	۸:۱۲ – ۸:۱۵
فرخنده جمشيدى	Yoga management of breast cancer- related lymph edema	R2-06	$\lambda: \Delta - \lambda: \Delta$
پريسا كنگرى	Evaluation the Relationship Between Serum Levels of Malondialdehyde and Breast Cancer Risk in Women	R2-07	λ:۱۸ — λ:۲۱
زهرا سعادتيان	Association study of rs1219648 in FGFR2 and rs1042522 in TP53 with premenopausal breast cancer in an Iranian Azeri population	R2-08	۸:۲۱ – ۸:۲۴
سارا بهروزی مقدم	The effects of hydro alcoholic extract of sage (Salvia officinalis L.) leaves on cultured mouse breast cancer cells	R2-09	λ:۲۴ — λ:۲۷
فرشته چوبساز	Breast Cancer During Pregnancy Can Be Treated as in No pregnant Women	R2-10	۸:۲۷ — ۸:۳۰

۸–۶ اسفند ماه ۱۳۹۳

برنامه روزانه دهمين كنگره بينالمللي سرطان پستان

ارائه دهنده	عنوان	کد	ساعت
ذبيح اله محقق	Protective impacts of Ziziphus Jujube on biochemical and	R2-11	۸:۳۰ – ۸:۳۳
	hematological factors in NMU- induced breast cancer in rats Study of epidemiology of Breast		
حسن حسین زادگان	Cancer in Maragheh, Iran (2007- 2012)	R2-12	۸:۳۳ – ۸:۳۶
مجيد حسن زاده	Health-Related Quality of Life and its related factors among women with breast cancer	R2-13	<b>አ:</b> ۳۶ — አ:۳۹
نسرین کریمی	CK19 expression in the peripheral blood of breast cancer patients	R2-14	۸:۳۹ – ۸:۴۲
شیری	Comparative evaluation of lung absorbed dose in different methods of radiotherapy after mastectomy	R2-15	۸:۴۲ — ۸:۴۵
ميترا منتظرى	Can Breast Cancer Survival by Risk Factors? Machine Learning Models	R2-16	۸؛۴۵ — ۸؛۴۸
مائده جعفری تیرتاش	Early Detection of Breast Cancer: a Study on the Breast Blood Variability by the Breast Phantom Accompanied by Vessels	R2-17	٨:۴٨ — ٨:۵١
مرضیه حیدری	Effect of Combine Decongestive Therapy and the quality of life in breast cancer patients after mastectomy	R2-18	۸:۵۱ – ۸:۵۴
رضاخانی	Effect of crab shell extract on the viability and morphology of breast cancer cells in vitro	R2-19	λ:۵۴ — λ:۵۷
زهرا کوچکی نژاد	Effect of Patient_ Care giver Education program On Cancer Related Self- Efficacy in Breast Cancer Patients.	R2-20	٨:۵Υ — ٩:٠٠
انصاری	Eligible women's knowledge about the importance of breast self- examination and education in Tabriz health centers in 93	R2-21	۹:۰۰ –۹:۰۳
سودابه شهيدثالث	Evaluation of the relationship between axillary lymph nodes involvement and Ki67 over expression in Breast cancer patients	R2-22	9:• <i>°</i> – 9:• <i>9</i>

ارائه دهنده	عنوان	کد	ساعت
فرنوش معافى	Dose history of induced abortion increases the risk of breast cancer?	R2-23	९:• <i>۶</i> — ९:• ९
الهه سليمان پور	Evaluation of the expression of mir- 21 oncomir, new diagnostic and prognostic molecular marker in tissue and blood of breast cancer patients	R2-24	<b>٩:• ९</b> — ९:۱४
هاجر يعقوبى	Designing and Cloning of cytolethal distending toxin B as Biological Tool against cancer	R2-25	۹:۱۲ – ۹:۱۵
مصطفی قادری	A New Mathematical Dynamics Model to Decipher Cancerous Cell Invasion in Breast Cancer Using Partial Differential Equations	R2-26	۹:۱۵ — ۹:۱۸
سيده پريسا موسويان	Folate; friendly or enemy nutrient	R2-27	۹:۱۸ — ۹:۲۱
اعظم گراوندی	An Investigation into the Epidemiological Trend of Breast Cancer in the World, particularly in Iran	R2-28	9:71 — 9:74
محمدباقر ملجائى	Homocysteine and Breast Cancer	R2-29	9:74 – 9:77
فروغ يوسفى	Properties of TGFαL3-SEB fusion protein as a ligand targeted superantigen in breast tumor- bearing mice following intravenous or intratumoral injection	R2-30	۹:۲۷ — ۹:۳۰
امير زائركعبه	Knowledge, attitude and practice of female students of Maragheh faculty of medical sciences on breast cancer	R2-31	۹:۳۰ – ۹:۳۳
نادیا مشایخی	The investigation of amount of awareness, attitude, and performance of women over 20 years old with a positive breast cancer in family history in Markazi province	R2-32	9:TT — 9:TF
آزیتا محسن نژاد	The Investigation of Health Belief Model in Early Diagnosis of Breast Cancer in Patient's families in Arak Province	R2-33	9:88 – 9:89

۸–۶ اسفند ماه ۱۳۹۳

برنامه روزانه دهمين كنگره بينالمللي سرطان پستان

ارائه دهنده	عنوان	کد	ساعت
نسيم خسروى	Effect of 6 months aerobic training on plasma leptin levels as a breast cancer risk factor in postmenopausal women	R2-34	9: <b>7</b> 9 — 9: <b>7</b> 7
محسن عليپور	Design and Characterization of a Peptide-Based Nanocarrier, MPG- H1-iRGD, for Gene Delivery to Breast Cancer Cells.	R2-35	۹:۴۲ — ۹:۴۵
فواد عسجودی	Physical Activity and Breast Cancer Prevention	R2-36	۹:۴۵ — ۹:۴۸
سیدہ سما زکریایی	Pregnant women' knowledge, attitudes and perceptions towards breast cancer prevention: a questionnaire study in Besaat hospital in Sanandaj	R2-37	۹:۴۸ — ۹:۵۱
نجمه دهقان	Using docking procedure and molecular dynamic simulation to design peptides, drived from Herceptin	R2-38	9:21 — 9:24
مائده جعفری تیرتاش	Study of Reaction in the Biological Components of Breast Exposed to Light Source Near-Infrared Wavelength	R2-39	۹:۵۴ — ۹:۵۷
رضا صاحبی	ncRNA ROR is a good way to detect Breast Cancer	R2-40	۹:۵۷ — ۱۰:۰۰
سميه عبداله زاده	Evaluation of serum Ischemia modified albumin( IMA) levels in breast cancer patients	R2-41	۳۳ – ۱۰.۰۳
سمیه رمضانلی	The Effect of Breast Feeding and Breast Cancer Incidence in Women wit Breast Cancer	R2-42	۶۰:۰۳ – ۱۰:۰۶
سمیه رمضانلی	The Effect of Training Quality of Life and Coping Strategies on Functional Scale of Quality of Life in Women with Breast Cancer	R2-43	۱۰:۰۶ – ۱۰:۰۹
سمیه رمضانلی	The Impact of Education on Symptomatic Scale of Quality of Life in Women with Breast Cancer	R2-44	۱۰:۰۹ – ۱۰:۱۲

ارائه دهنده	عنوان	کد	ساعت
شیری	Uniformity of dose distribution in target volume in radiotherapy techniques for breast after Mastectomy	R2-45	۱۰:۱۲ – ۱۰:۱۵
اعظم قرباني	Yoga and psychological health of breast cancer	R2-46	۱۰:۱۵ – ۱۰:۱۸
زينب توكل	Knowledge, attitude and practice about breast cancer screening among students of Tehran University of Medical Sciences, in 2010	R2-47	۲۱:۱۸ – ۱۰:۲۱
سيده پريسا موسويان	The roles of $\omega$ 3-fatty acid in breast cancer protection	R2-48	1•:71 – 1•:74
فرزان مددی زاده	Predicting the survival in breast cancer using Hidden Markov Model	R2-49	۲۷: ۲۰ – ۲۴: ۲۷
مرضيه مشكات	Bioinformatics analysis of potential role of miR-520f in patients with breast carcinoma	R2-50	۲۰:۲۷ – ۲۷:۳۰
زهرا طهماسبی فرد	Association between SHBG gene polymorphism (rs 5790) and breast cancer susceptibility	R2-51	۳۳: ۱۰ — ۲۰: ۳۳
زهرا طهماسبی فرد	Association of Breast Cancer Risk with a Common Functional Polymorphisms of fas 1377 and fas ligand 844.	R2-52	۲۶: ۲۲ – ۲۰: ۳۶
سمیه دهقان کوهستانی	Expansion and characterization of breast cancer stem cells for the development of BCSC targeting therapeutic strategies	R2-53	۲۹ : ۲۰ – ۲۰:۳۹

#### برنامه روزانه Rapid Oral Presentation برنامه

# روز سوم : جمعه ۸ اسفندماه ۱۳۹۳

# هیأت رئیسه : دکتر حسین فودازی ـ دکتر پدرام فدوی

ارائه دهنده	عنوان	کد	ساعت
تكتم بهشتيان	Evaluation of sonographic and mammographic appearances of invasive lobularcarcinoma in breast cancer research center since 1380 to 1392	R3-01	17:37 - 17:37
ريتا مطيع دوست كمله	Epidemiological review of the situation of Breast cancer that have been registered in pathologic labs Under coverage Iran University of Medical Sciences (IUMS) from 2011- 2013	R3-02	17:37 - 17:88
وحيده ايمنى	Evaluation of benzoxaloyl coumarins induced cell death in MDA-MB-231 Triple negative breast cancer cell line	R3-03	17:38 - 17:89
جمشیدی نائینی	The association between Vitamin D status and risk of breast cancer: a case- control study	R3-04	17:39 - 17:87
بیتاسادات زکردی	The effectiveness digital mammography compared to the analog mammography for breast cancer diagnostic and screening: systematic review	R3-05	17:47 - 17:40
آرزو شايان	New methods of treatment for breast cancer	R3-06	17:40 - 17:48
محمد مرادی جو	Effectiveness of Group Training Based on Acceptance and Commitment Therapy on Anxiety and Depression of Women with Breast Cancer	R3-07	۱۲:۴۸ — ۱۲:۵۱
سيد حسين داودي	Heavy Metals Contamination of Milk and Dairy Products and Risk of Cancers	R3-08	17:01 – 17:04
ناصر صمدی	The Six family of homeobox genes and related mechanisms in diseases	R3-09	17:54 - 17:54
ندا رضوانی	The effects of vitamin C administration on conventional treatment in patients with breast cancer: A review	R3-10	۱۲:۵۷ – ۱۳:۰۰

ارائه دهنده	عنوان	کد	ساعت
محمد مرادی جو	اثربخشی آموزش گروهی ذهن آگاهی و درمان مبتنی بر پذیرش و تعهد بر افزایش کیفیت زندگی زنان مبتلا به سرطان پستان	R3-11	17:•• – 17:•7
بيتا باوادى	بررسی اثربخشی درمان شناختی _رفتاری مبتنی بر الگویی ۸ مرحلهی کش بر بهبود تصویر تن و بهزیستی روانشناختی زنان مبتلابه سرطان پستان	R3-12	18:•8 – 18:•8
فاطمه علايي كرهرودي	خودمدیریتی در نوجوانان جهت پیشگیری از سرطان سینه	R3-13	18:08 - 18:09
مژگان انصاری	به فرزندم درباره سرطان پستان چه بگویم؟	R3-14	18:•9 - 18:12
طاهره سادات خوش نظر	تبیین ادراک بیماران مبتلا به سرطان پستان از نیازهای مراقبتی بیماران	R3-15	18:17 - 18:10
موسی سجادی	عدم قطعیت در بیماری در زنان مبتلا به سرطان پستان و عوامل مرتبط با آن	R3-16	17:10 - 17:11
الهام ذنوبى	نقش miRNA ها در سرطان پستان	R3-17	13:18 - 15:51
اکبر سرابی اصل	Effect of injecting AuNPs on performance of AccuBoost brachytherapy system in patients with early-stage breast cancer using Monte Carlo method	R3-18	14:21 - 14:24
علی کرم هدایتی گودرزی	Role Of Ovarian Sleep With Gnrh Analogs During Chemotherapy For Fertility Preservation In Young Patient (Up To 40 Years) With Breast Cancer(Study Of 54 Patients In Ostad Alinasab Hospital And Oure Clinic In Tabriz)	R3-19	14:26 - 14:20

۸-۶ اسفند ماه ۱۳۹۳

#### برنامه روزانه پوسترها

دهمین کنگره بین المللی سرطان پستان

روز اول : چهارشنبه ۲ اسفندماه ۱۳۹۳، ساعت ۸:۰۰ لغایت ۱۰:۳۰

ارائه دهنده	عنوان	کد پوستر
شهين توحيدى	Effect of patient education on breast cancer	P1-01
مرضیه کارگر جهرم	The Evaluation of the Educational Plan of Breast Self-Examination of Women Referring to Health Centers	P1-02
سیما کیانی راد	Sexuality in women with breast cancer after treatment	P1-03
شهين توحيدى	Spiritual Health in Breast Cancer	P1-04
سیماکیانی راد	Treatment of hot flashes in women with breast cancer	P1-05
مرضيه كارگر جهرم	Supportive Care During Treatment of Breast Cancer Patients	P1-06
پرهام نجاتی	Deregulation of microRNA in metastatic breast cancer as biomarkers and therapeutic targets	P1-07
على قنبري اسد	A new strategy against cancer cells	P1-08
حديثه محمدپور	Aptamer and breast cancer	P1-09
زهرا قطره سامانی	Investigation of association between miR-152 polymorphism with breast cancer in Isfahan population	P1-10
مرضيه پورولى	Impact of psychological intervention on stress and depression in breast cancer patients	P1-11
ابوالفضل مسلمى	Differential Diagnosis of Breast Cancers Using Texture Analysis of Magnetic Resonance Imaging	P1-12
ام البنين زارع	Adjuvant Endocrine Therapy and Breast Cancer	P1-13
مهديه أكوچكيان	Evaluation of Shoulder Girdle Strength after Modified Radical Mastectomy and Comparison with Healthy Participants	P1-14
عارف صبح خیزی	Dendrosomal Nano-Curcumin is inducing apoptosis in MCF-7 and T47D breast cancer cell lines via down-regulating survivin expression	P1-15

ارائه دهنده	عنوان	کد پوستر
طيبه عقابي بخشايش	Arsenic Trioxide increases paclitaxel-induced apoptosis in resistant breast cancer cells	P1-16
ادریس صادقی	Targeted Therapy in Triple Negative Breast Cancer (TNBC): A Case Series	P1-17
ادریس صادقی	Different Presentation of Treatment in Carcinomatous Meningitis of Breast Cancer: Report of 3 Cases	P1-18
آسيه الفت بخش	The association between triple negative breast cancer with hormonal and reproductive factors	P1-19
عاطفه صورتچی	Assessing the Psychological effect of breast cancer on the patients' quality of life	P1-20
نسرین کریمی	Association of Ki67 expression and CK19 detection in breast cancer patients	P1-21
عالیه سرگزی	Knowledge and awareness about breast cancer among Zabol medical students	P1-22

#### برنامه روزانه پوسترها

دهمین کنگره بین المللی سرطان پستان روز اول : چهارشنبه ۲ اسفندماه ۱۳۹۳، ساعت ۱۱:۰۰ لغایت ۱٤:۰۰

ارائه دهنده	عنوان	کد پوستر
مینا گالشی	Effectiveness of cognitive-therapy, stress management intervention on anxiety, depression and quality of life in women with breast cancer	P2-01
زيبا محمدى	Barriers to Perform BSE of the Viewpoint of Women Nurses Working in Hospitals Asadabad City of Hamadan in 2014	P2-02
محمدباقر ملجائى	Black tea and coffee consumption and breast cancer risk, new controversy	P2-03
فاطمه باقرى	In-silico analysis of rs1836724 and its related microRNAs in breast cancer	P2-04
مریم حیدری	Breast Cancer In Pregnancy(Areview Article)	P2-05
شايسته رضاياني	Regulation of expression and/or activity of voltage- gated sodium channels; a therapeutic target in metastatic breast cancer	P2-06
علیرضا سرگزی	A pathologic study on breast biopsy in Zabol medical university of sciences hospital in 2014	P2-07
مهران معتمدي	Breast Cancer	P2-08
سیدسلمان زکریایی	Clinical utility of positron emission mammography for breast cancer screening	P2-09
قاسم خزائی	Combination Therapy of siRNA and Chemotherapy in Breast Cancer	P2-10
اعظم سلمان	Comparative quantification of target gene expression in Breast cancer cells by Real-time PCR method	P2-11
عصمت السادات هاشمی	Comparison of Clinicopathologcal Characteristics in Metastatic Breast Cancer Patients: At Initial Presentation and in the Follow up Time	P2-12
سعیدہ کیوانی قمصری	Comparison of cytokeratin19 expression in various human breast cancer cell lines	P2-13
ندا جعفري	Study of the expression of apoptotic BAX and Bcl-2 genes in breast cancer cells treated with dendrosomal nanocurcumin	P2-14

ارائه دهنده	عنوان	کد پوستر
سميه رمضانلي	Coping Strategies Used in Women with Breast Cancer	P2-15
اسماعیل زادہ بھابادی	Effect of hydro alcohlic extract of Citrullus colocynthis fruit on caspase 3 gene expression in MCF-7 breast cancer cell line	P2-16
زهرا عرفا	Detection of CK19 Marker in the MCF7 and T47D Cell Lines by Immunofluorescence Microscopy	P2-17
پریسا مختاری حصاری	Determining pattern of metastasis and prognostic factors in breast cancer using conditional regression model (PWP)	P2-18
حسن حسین زادگان	Review on the role of EBV in breast cancer induction	P2-19
مهتا مظاهری نائینی	Effect of hydro alcoholic extract of Nigella sativa on Caspase3 gene expression in MCF7 cell line	P2-20
سودابه شهيد ثالث	Evaluation of the relationship between axillary lymph nodes involvement and Ki67 over expression in Breast cancer patients	P2-21
مهديه شكرالهى	Comparison of IL-25 and IL-17B in Apoptosis and Proliferation induction of breast cancer cell lines	P2-22

#### برنامه روزانه پوسترها

دهمین کنگره بین المللی سرطان پستان

روز دوم : پنج شنبه ۷ اسفندماه ۱۳۹۳ ، ساعت ۸:۰۰ لغایت ۱۰:۳۰

ارائه دهنده	عنوان	کد پوستر
سمانه فاضلی فارسانی	Development of Novel Molecular Drug Candidates Using Molecular Docking Techniques in the Context of Breast Cancer	P3-01
مينا كاظم پور	Molecular signaling pathway analysis of miR-155 targetome to decipher various molecular functions of miR-155 in breast cancer with respect to prevalence of vaginal candidiasis in patients	P3-02
آسيه الفت بخش	Evaluation of Focal magnification View in the assessment of mammographic abnormalities in Breast Cancer Research Center	P3-03
سيده پريسا موسويان	Green tea can be a protection factor for breast cancer	P3-04
اعظم قرباني	Anti-oxidation of Green tea and breast cancer	P3-05
عظیمه ایزدی	Impact of Diet on Breast Cancer Risk: A Review study	P3-06
ام البنين زارع	In Vitro Fertilization and Cancer Risk	P3-07
سید سعید عقیلی	Association of Breast Cancer and its Therapy with Candida Infection	P3-08
حسن حسين زادگان	Knowledge, attitude and practice of female students of Maragheh faculty of medical sciences on breast cancer	P3-09
انصار	Knowledge and women who are qualified to carry out the CBE Clinical breast Examination ( in Tabriz health centers in 2014)	P3-10
ليلا جمالزاده	Induction of Apoptosis in Human Breast Cancer MCF-7 Cell Line by Artesunate	P3-11
ام البنين زارع	Life style and Breast Cancer	P3-12

ارائه دهنده	عنوان	کد پوستر
سارا مالی	A Quick Review of Long Noncoding RNAs: A new paradigm in breast cancer pathogenesis, diagnosis, and therapy	P3-13
مهدی آقاقلی زادہ	Enhances the Effects of Chemotherapeutic Agents in Human Breast Cancer Cells with Downregulation of XIAP Expression by RNAi	P3-14
محمدباقر ملجائى	Mediterranean Diet; Best Dietary Guideline to Fighting Breast cancer	P3-15
مريم مومنى	The role of Peer support on quality of life of women with breast cancer	P3-16
سکینه عباسی	Estrogen Receptor- $\alpha$ A $\rightarrow$ G Mutation and the Breast Cancer Risk	P3-17
مولود نيک خواه	The association between pancreatic function and genetic markers of obesity in breast cancer	P3-18
نسترن رياحي	Bioinformatics analysis of potential role of miR-662 in breast cancer patients: inhibition of cytokine-cytokine receptor pathway	P3-19
سید سلمان زکریایی	Nuclear Medicine breast imaging: Current status and future directions	P3-20
محسن نوروزی	Knowledge, attitudes, beliefs and practices of the Iranians about cancer: a systematic review of the previous studies	P3-21

#### برنامه روزانه پوسترها

دهمین کنگره بین المللی سرطان پستان

روز دوم : پنج شنبه ۷ اسفندماه ۱۳۹۳ ، ساعت ۱۱:۰۰ لغایت ۱٤:۰۰

ارائه دهنده	عنوان	کد پوستر
آرزو شايان	Performance and attitude towards breast cancer in women over 18 years in the city of Shiraz, 1392	P4-01
فرشته نجفى	Quality of life in women with breast cancer	P4-02
فهيمه صحتى شفائى	Results of Breast Cancer Screening tests in Behbood Hospital in Tabriz	P4-03
مهدی حماسیان اتفاق	Comparison and Evaluation of Synthesis of Risk Factors in Breast Cancer and Provide a Model for Determine the Likelihood of Developing Breast Cancer Using byEM Algorithm in Data Mining Techniques	P4-04
سميرا كياني	In-silico analysis of hsa-mir-196a targetome pathway and its SNP function in patients with breast cancer: potential association between T allele and the risk of metastasis	P4-05
سهيلا فتحعلى زاده	Screening and early detection of breast cancer	P4-06
فهميه خواجه امينيان	Sexual functioning after mastectomy surgery- A qualitative study	P4-07
شهرزاد کبیرزاده	Bioinformatics analysis of functional SNP (A→G) at miR-499 in patients with breast cancer: G allele is probable poor prognostic factor	P4-08
زهره جهان افروز	Silibinin Causes Upregulation of PTEN as One of the Cell Cycle Progression Blocker in MCF-7 Human Breast Cancer Cell Line	P4-09
افروز عرضه گر	Review of Computer-aided detection of breast cancer on mammograms	P4-10
مهدی حماسیان اتفاق	An Overview of Breast Cancer Prediction in Early Stage with Analyses of Mammographic Images Using by Data mining Techniques and provide a Novel Solution in Screening	P4-11
هدا تفضلی هرند	Investigation of the time and the site of metastases in patients with triple negative breast cancer and other phenotypes	P4-12

ارائه دهنده	عنوان	کد پوستر
سيده پريسا موسويان	Vitamin D and Breast Cancer, Is there any association?	P4-13
محمدباقر ملجائى	Vitamin D Receptor (VDR) gene polymorphism is a risk for breast cancer	P4-14
ام البين زارع	Walnut and Breast Cancer	P4-15
آرزو شايان	New methods of treatment for breast cancer	P4-16
زیبا رئیسی دهکردی	Knowledge, attitude and practice of menopause women towards breast cancer	P4-17
محبوبه مشكات	in-silico analysis of hsa-mir-146a targetome pathway and its SNP function in patients with breast cancer: probable association between alleles and prognosis	P4-18
زهرا اسفندیاری دولابید	A comparison of body image and public health among breast cancer patients with breast evacuation, breast keeping and normal people in Tehran	P4-19
فرزان مددی زاده	Predicting the survival in breast cancer using Hidden Markov Model	P4-20

#### برنامه روزانه پوسترها

دهمین کنگره بین المللی سرطان پستان

روز سوم : جمعه ۸ اسفندماه ۱۳۹۳ ، ساعت ۰۰:۰۰ لغایت ۱۰:۳۰

ارائه دهنده	عنوان	کد پوستر
مونا رهنمای هلالی	Breast Carcinoma Stages Diagnosis by Expression of breast Cancer-Specific Gene1	P5-01
فرناز طباطبائي	The Impact of Intraoperative Radiation Therapy in the Breast Cancer	P5-02
سيما قزلباش	Sunlight exposure, vitamin D, and the prevention of breast cancer	P5-03
سيما قزلباش	Psychological interventions and pain control in breast cancer patients	P5-04
مريم رحيمي فرد	Quercetin decrease leptin gene expression in breast cancer	P5-05
الهه نوشين فر	Molecular Mechanisms of Melatonin anti cancer activity in breast cancer	P5-06
اعظم شیرین عبادی فراهانی	Breast Cancer and Spiritual Health	P5-07
اعظم صحراگرد	Stability and thermodynamic investigation of embryonic stem cell marker Sox2 in breast cancer stem cells by spectroscopic and modeling techniques	P5-08
زليخا اصغرلويي	Breast cancer screening barriers from women's perspective: a systematic review in qualitative studies and critical appraisal	P5-09
ندا رضوانی	The effects of vitamin C administration on conventional treatment in patients with breast cancer: A review	P5-10
امیر شهرام یوسفی کاشی	Eligible patients for intraoperative radiotherapy (IORT) of early breast cancer: A cohort analysis	P5-11
امیر شهرام یوسفی کاشی	Adjuvant radiotherapy of regional lymph nodes in breast cancer - a meta-analysis of randomized trials	P5-12
امیر شهرام یوسفی کاشی	Radiation Therapy for Locally Recurrent Breast Cancer	P5-13

ارائه دهنده	عنوان	کد پوستر
امیر شهرام یوسفی کاشی	The role of Axillary Dissection for Breast Cancer in Old women; A Meta-analysis of Randomized Clinical Trials	P5-14
الهه نوشين فر	Futures of Breast Cancer in Iran	P5-15
علی کرم هدایتی گودرزی	Breast cancer with Acrometastasis Of hands, two case reports from Ostad Alinasab Hospital in Tabriz(north west of Iran).	P5-16
علی کرم هدایتی گودرزی	Management of breast cancer during pregnancy and review of 23 treated cases in our clinic and Ostad alinasab hospital in tabriz (north west of IRAN).	P5-17
سھیلا کوھستانی موبرھان	Evaluation of statins induced cell death in MDA- MB-231 triple negative breast cancer cell line	P5-18
الهه نوشين فر	Molecular Mechanisms of Melatonin anti cancer activity in breast cancer	P5-19
علی کرم هدایتی گودرزی	Comparison of clinicopathologic appearance and 5years survival of breast cancer in young (less than 40years) and less young (40-50 years) women in Ostad Aalinasab Hospital in north west of IRAN (TABRIZ).	P5-20
نسيم فرقاني	Evaluation of Silibinin Toxicity on Breast Cancer Cell line MCF-7	P5-21
شهرام محقق	Exercise interventions for patients with breast cancer related lymphedema	P5-22

#### برنامه روزانه پوسترها

دهمین کنگره بین المللی سرطان پستان

روز سوم : جمعه ۸ اسفندماه ۱۳۹۳ ، ساعت ۱۱:۰۰ لغایت ۱٤:۰۰

ارائه دهنده	عنوان	کد پوستر
فرانک فلاحیان	Induction of apoptosis in human breast cancer cells by Britannin, a sesquiterpene lactone from Inula aucheriana	P6-01
اکبر سراہی اصل	Effect of injecting AuNPs on performance of AccuBoost brachytherapy system in patients with early-stage breast cancer using Monte Carlo method	P6-02
ليلا طاهري	Impact of nutrition on breast cancer incidence	P6-03
سارا بایش	Comparison of MRI and Pathologic Findings in Patients with Breast Complaints	P6-04
آهو افشاري نصب	Evaluation of anti-cancer activity of new COX-2 inhibitors in an invivo model of breast Cancer	P6-05
سعيده حسينى	The role of prolactin and growth hormone in breast cancer	P6-06
راحله مرادپور	Application of Functional Proteomic in the Diagnosis and Treatment of Breast Cancers	P6-07
پریسا مختاری حصاری	Determining pattern of metastasis and prognostic factors in breast cancer using conditional regression model (PWP)	P6-08
فهيمه خواجه امينيان	فهيمه خر qualitative study	
خديجه حكمت	بررسي ارتباط مصرف ماهي و خطر سرطان پستان خديجا	
مهران حميدي	بررسی عملکرد کمپلکس دارویی پاکلی تاکسل - پلیاتیلن گلایکول در مرگ سلولهای آدنوکارسینومای سرطان پستان	P6-11
سپيده حاجيان	مرور نظام مند راهکارهای مقابله و سازگاری با سرطان پستان	P6-12
فائزه ترابى	معنویت و رشد پس از سانحه در زنان مبتلا به سرطان پستان	P6-13
فاطمه نیک سرشت	معنویت و سرطان پستان	P6-14
زهرا عبادی نژاد	آیا سلامت معنوی برارتقای کیفیت زندگی افراد مبتلا به سرطان پستان تاثیر دارد؟	P6-15

9.

ارائه دهنده	عنوان	کد پوستر	
	مراقبت پرستاری در منزل برای زنان جوان مبتلا به سرطان		
فاطمه سميعى سيبنى	پستان به عنوان استراتژی موثر پرستاری در افزایش کیفیت	P6-16	
	زندگی بیمار و خانواده		
فاطمه مقدم تبريزي	Breast Cancer Survivor's Experiences: A Qualitative Study	P6-17	
افسون تقوى	Futures of Breast Cancer in Iran	P6-18	
	The relationship between involved side and		
عليرضا پاسدار	recurrence and metastasis of breast cancer in	P6-19	
	patients referred to a private oncologic clinic in Mashhad		
	Histopathologic Characteristics of Breast Cancer in		
عليرضا پاسدار	Patients Treated in a Private Oncologic Clinic in	P6-20	
	Mashhad		
على عبدالهي	Evaluating the effect of Femara and Tamoxifen on		
	serum lipids in early postmenopausal breast cancer	P6-21	
	patients.		
على عبدالهي	Perceived social support evaluation in breast cancer	P6-22	
	patients: a case-control study		

# **برنامه ارائه کارگاهها** عنوان :رادیوتراپی حین عمل (IORT) مسئول کارگاه : دکتر محمد هادیزاده تاریخ و زمان برگزاری : ۹۳/۱۲/۰۷ – ۱۸:۳۰ لغایت ۱۸:۳۰

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سمینار مراقبت های پرستاری در بیماران مبتلا به کانسر پستان

برگزار کنندگان: مرکز تحقیقات سرطان دانشگاه علوم پزشکی شهید بهشتی با همکاری : دانشکده پرستاری و مامایی دانشگاه علوم پزشکی شهید بهشتی زمان: ۸ اسفندماه ۱۳۹۳؛ ۸ تا ۱۵/۳۰ مکان: دانشکده پزشکی دانشگاه علوم پزشکی شهید بهشتی معلن: دانشکده پزشکی دانشگاه علوم پزشکی شهید بهشتی معرفی: کانسر پستان، شایع ترین نوع سرطان در زنان در کشورهای صنعتی محسوب می شود. از سرطان، بیماران مبتلا هم چنان از طیف وسیعی از علایم و عوارض جانبی مربوط به بیماری و درمانهای مربوط به آن، در ابعاد جسمی، معنوی، روانی و اجتماعی رنج می برند که سبب تاثیر منفی بر کیفیت زندگی آنها می شود. با توجه به این که بخش اعظم مراقبت از بیماران مبتلا بر عهده پرستاران میباشـد، آشـنایی ایـن گروه با درمان های مرسوم و مبانی مراقبت از بیماران مبتلا بر عهده پرستاران میباشـد، آشـنایی ایـن مراقبتهای پرستاری با کیفیت به بیماران، پیشگیری از پیامدهای منفی بیماری و ارتقای کیفیت زندگی بیماران و خانواده آنها، یک ضرورت تلقی می شود. اهداف جزئی:

 اییدمیولوژی کانسر پستان را توضیح داده و مراقبتهای اولیه از بیماری را که به تازگی تشخیص بیماری برای او گذاشته شده، شرح دهند.

۸–۶ اسفند ماه ۱۳۹۳

- ۲. رژیمهای معمول درمانی در کانسر پستان را نام برده و ضمن توضیح توجهات ضروری در هنگام بکارگیری این داروها، درباره مراقبتهای پرستاری مرتبط با آن بحث کنند.
  - ۳. ضرورت استفاده از پورت و نقاط قوت و ضعف بکارگیری آن در بیماران را شرح دهند.
- ۴. در خصوص رادیوتراپی در بیماران مبتلا به کانسر پستان و مدیریت عوارض آن اظهار نظر نمایند.
- ۵. اصول مدیریت علایم در بیماران مبتلا به کانسر پستان را نام برده و درباره شایعترین
   علایمی که در بیماران مبتلا نیاز به توجهات پرستاری دارد، بحث کنند.
- ۶. تعریف، مبانی و ضرورت ارایه مراقبت های حمایتی و تسکینی و لزوم آشنایی پرستاران
   ۹. با این مبانی را توضیح دهند.

**روش برگزاری**: سخنرانی، پرسش و پاسخ **مخاطبین**: پرستاران و به ویژه، پرستاران شاغل در بخش های انکولوژی، هماتولوژی و پیوند مغز استخوان

# عنوان : همایش پرستاری

مسئول کارگاہ : دکتر مریم رسولی

تاریخ و زمان برگزاری : ۹۳/۱۲/۰۸ –۸:۳۰ لغایت ۱۳

سخنران	موضوع برنامه	ساعت
-	تلاوت أیاتی چند از قرآن کریم و سرود جمهوری اسلامی	۸:۳۰-۸:۴۵
-	خير مقدم	٨:۴۵-٩:• •
دکتر محمد هادیزاده	اپيدميولوژي كانسر پستان	۹:۰۰–۹:۲۰
دکتر سمیرا ازقندی	اصول شیمی درمانی	۹:۲۰–۹:۳۵
دكتر اربابي	رژیم های درمانی و طبقه بندی داروها در کانسر پستان	٩:٣۵–٩:۵۵
خانم پروين پيغمبرلو	مراقبت های پرستاری در بکارگیری داروهای شایع	۹:۵۵-۱۰:۱۵
خانم مهيندخت	مدیریت عوارض شیمی درمانی صیادی نیا	۲۵-۱۰:۳۵
_	استراحت و پذیرایی	۱۰:۳۵-۱۱:۰۰
دکتر مجید صمصامی خانم لیلا صابونچی خانم انسیه فتح اله زاده خانم بهناز حبیب پناه	پانل پورت و مراقبت از آن	11:17:
دكتر كامبيز نوين	اصول رادیوتراپی در کانسر پستان	17:••-17:5•
خانم شبنم جودكى	مراقبت های پرستاری در رادیوتراپی	17:30-18:••

۸–۶ اسفند ماه ۱۳۹۳

#### عنوان : پزشکان عمومی ۱

مسئول کارگاه : دکتر فرشید اربابی

تاریخ و زمان برگزاری : ۹۳/۱۲/۰۲ - ۱۲ لغایت ۱۸

تخصص	سخنران	عنوان سخنرانی	ساعت
كلينيكال انكولوژيست	دكتر نوين	چهره سرطان در دنیا و ایران	18:00 - 18:50
راديولوژيست	دکتر هادیزاده	تشخیص اولیه سرطان پستان در زنان بدون	18:00 - 18:40
		علامت	
راديولوژيست	دكتر ايمانى	آنچه پزشک عمومی باید از رادیولوژی	18:40 - 18:00
		پستان بداند	
جراح فلوشيب جراحى	دكتر نفيسى	نقش پزشکان عمومی در برخورد اولیه	۳۰-۱۷:۳۰ – ۱۷:۳۰
پستان			
كلينيكال انكولوژيست	دکتر مقدم	سرطان پستان چگونه درمان می شود؟	۱۷:۳۰ – ۱۸:۰۰

#### عنوان: پزشکان عمومی ۲

مسئول کارگاه : دکتر فرشید اربابی

تاریخ و زمان برگزاری : ۹۳/۱۲/۰۷ – ۱۲ لغایت ۱۸

تخصص	سخنران	عنوان سخنرانی	ساعت
كلينيكال انكولوژيست	دکتر طاهری پناه	چرا شیمی درمانی (اندیکاسیون ها و عوارض)	18:00 - 18:00
كلينيكال انكولوژيست	دکتر مریم میرزایی	اصول و روشهای رادیوتراپی	18:30 - 18:00
كلينيكال انكولوژيست	دکتر ازقندی	هورمون درمانی	۱۶:۵۰ – ۱۷:۰۵
كلينيكال انكولوژيست	دکتر مافی	نقش پزشک عمومی در پی گیری سرطان پستان، سهل و ممتنع	14:0-14:20
كلينيكال انكولوژيست	دکتر ملک زادہ	برخورد با نجات یافتگان سرطان	14:20 - 14:40

#### عنوان : تغذيه

مسئول کارگاه: دکتر سید حسین داودی

تاریخ و زمان برگزاری : ۲۰/۱۲/۰۳ – ۱۵:۳۰ لغایت ۱۳:۳۰

تخصص	سخنران	عنوان سخنرانی	ساعت
تغذيه	دکتر سید حسین داوودی	تازه های تغذیه از پیشگیری تا کنترل	۱۳:۳۰ – ۱۳:۵۰
	دکتر مرجان عجمی	سرطان پستان	
تغذيه	دکتر مرجان عجمی	بررسی نقش ریز مغذیها و فتوکیمیکالها	13:00 -14:10
-200	ەلىر مرجن غېمى	در پیشگیری از سرطان پستان	11.00 11.1
		مكانيسم اپيژنيک پلي فنول ها،	
تغذيه	دکتر حمید پازوکی طرودی	پلی فنولهای رژیم غذایی در	14:1• -14:8•
		پیشگیری از سرطان	
تغذيه	دکتر سید حسین داوودی	مراقبت تغذیهای در بیماران سرطانی	14:30 - 14:00
		مراجبت فتنديدي در بيدران شركاني	
_	مهندس رقيه شهبازي	شیر مادر و سرطان پستان	14:00 - 10:10
	مهندس سعيده اسماعيلى	ار تباط باقیمانده فلزات سنگین در مواد	10:10 - 10:80
_	مهندس سغيده أسماعيني	غذایی با سرطان پستان (اثرات-راهکارها)	10:1+ 10:1+

برنامه روزانه دهمين كنگره بينالمللي سرطان پستان

# **عنوان :جراحی بازسازی سینه** مسئولین کارگاه : دکتر ناهید نفیسی - دکتر ماریزیو ناوا

تاریخ و زمان برگزاری : ۹۳/۱۲/۰۸ – ۸ لغایت ۱۰:۳۰

تخصص	سخنران	عنوان سخنرانی
جراح	دكتر ماريزيوناوا	Implant Based Breast or What a breast enhancement Surgery has to Commit to a Patient in 2014/ my 25 years ongoing learning curve
جراح	دکتر ناهید نفیسی	TRAM Flap
جراح	دكتر سهيلا صياد	attismus Dorsi Flap for reconstruction
جراح	دکتر محمد هادیزاده	Tissue replacement therapy in oncoplastic surgery

#### عنوان:جراحي آنكوپلاستي

مسئولین کارگاه : دکتر ناهید نفیسی – دکتر ماریزیو ناوا تاریخ و زمان برگزاری : ۹۳/۱۲/۰۷ – ۱۶ لغایت ۱۲:۳۰

تخصص	سخنران	عنوان سخنرانی	
جراح	دکتر مجید صمصامی	Sentinel Node Biopsy	
جراح	دکتر علی عبدالھی	Incision type in oncoplastic surgery	
1		Classification of partial mastectomy	
جراح	دکتر پریسا عظیمی نژاد	defect & treatment option	
جراح	دكتر ماريزيوناوا	NAC sparing mastectomy	
		Subcutaneous Skin reducing	
جراح	دکتر ناهید نفیسی	mastectomy immediate	
		reconstruction	
جراح	دکتر هاشمیان	Fat transfer in BCT & Mastectomy	

۸-۶ اسفند ماه ۱۳۹۳

#### عنوان : راديو تراپي

# گردانندگان : دکتر گودرز مزدایی – دکتر پرستو حاجیان تاریخ و زمان برگزاری : ۹۳/۱۲/۰۷ – ۱۱ لغایت ۹

تخصص	سخنران	عنوان سخنرانی	ساعت
راديوتراپی انکولوژی	آقای دکتر گودرز مزدایی	L. Breast RT with	۹:۰۰ – ۱۰:۰۰
راديوتراپى انكولوژى	خانم دکتر پرستو حاجیان	minimizing dose to the heart	1 – 11

#### عنوان: راديولوژي

# مسئولین کارگاه : دکتر مژگان کلانتری ـ دکتر آزاده جولایی

تاریخ و زمان برگزاری : ۹۳/۱۲/۰۷ ـ ۸ لغایت ۹

تخصص	سخنران	عنوان سخنرانی	ساعت
راديولوژى	دکتر مژگان کلانتری دکتر آزاده جولایی	New Birads	۸:۰۰۰ – ۸:۳۰
جراحي عمومي	د دیر آراده جولا یی	New Dirads	
راديو لوژى	دکتر پرتو حسنی زاده دکتر مریم نوری	Breast MRI	٨:٣٠ — ٩:٠٠

برنامه روزانه دهمين كنگره بينالمللي سرطان پستان

# Workshops program

	8-10	10-12	2-4
93/12/6	Supportive- expressive group therapy	Supportive- expressive group therapy	Existential therapy in cancer
SPEAKERS	DR.PATRICIA FOBAIR	DR.PATRICIA FOBAIR	DR.BAHMAN BAHMANI
93/12/7			Grief therapy in cancer
SPEAKERS			DR.TAHEREH KERMANY RANJBAR
93/12/8	Sexual rehabilitation in breast cancer	Breaking bad news	
SPEAKERS	DR.MARYAM ALAMDAR	DR.ARVIN HEDAYATI	

دهمین کنگره بینالمللی سرطان پستان

# **عنوان : جایگاه طب سنتی و مکمل** در کمک به درمان سرطان و افزایش کیفیت زندگی مسئول کارگاه: دکتر حسین رضایی زاده تاریخ و زمان برگزاری : ۹۳/۱۲/۰۲ - ۱۲:۳۰ لغایت ۱۰:۳۰

تخصص	سخنران	عنوان سخنرانی	ساعت
	دکتر حسین رضایی زادہ	طب تلفیقی و سرطان (Integrative Oncology)	— 11:•• 1•: <b>"</b> •
طب سنتی	دکتر حسین رضایی زادہ	تغذیه در بیماران سرطانی از دیدگاه طب ایرانی	-11:8• 11:••
راديو تراپى انكولوژى	دکتر طیبه طاهری پناه	تداخلات داروهای طبیعی و گیاهی با شیمی درمانی	-17:8• 11:8•

برنامه روزانه دهمين كنگره بينالمللي سرطان پستان

# **برنامه کارگادهای جانبی** دهمین کنگره بینالمللی سرطان پستان (روز اول) چهارشنبه <u>۱۳۹۳/۱۲/٦</u>

مکان کارگاہ	ساعت کارگاہ	گرداننده کارگاه	عنوان کارگاه	رديف
سالن امام علی (ع) کارگاه شماره۲	۹:۰۰ – ۱۱:۰۰	خانم دکتر پاتریشیا فوبیر (روانپزشک از امریکا)	روانشناسی در سرطان عنوان کارگاہ: Supportive-expressive group Therapy	١
سالن امام علی (ع) کارگاه شماره۱	۲۰:۳۰-۱۲:۳۰	جناب آقای دکتر رضایی زاده (متخصص طب سنتی)	طب سنتی و سرطان	٢
سالن امام علی (ع) کارگاه شماره۲	11:18:	خانم دکتر پاتریشیا فوبیر (روانپزشک از امریکا)	روانشناسی در سرطان عنوان کارگاہ: Supportive-expressive group Therapy	٣
سالن امام علی (ع) کارگاه شماره۱	۳۰:۱۳:۳۰-۱۵	آقای دکترسید حسینداوودی (متخصص تغذیه)	تغذیه در سرطان	۴
سالن امام علی (ع) کارگاه شماره۲	14:•• - 18:••	آقای دکتر بهمن بهمنی (روانشناس و مشاور خانواده)	روانشناسی در سرطان عنوان کارگاہ: Existential therapy in cancer	۵
سالن امام علی (ع) کارگاه شماره۱	۱۶:۰۰ – ۱۸:۰۰	آقای دکتر اربابی (رادیوتراپیست-آنکولوژیست)	کارگاه پزشکان عمومی	۶

# برنامه کارگاه های جانبی دهمین کنگره بینالمللی سرطان پستان (روزدوم) پنجشنبه ۱۳۹۳<u>/۱۲/۷</u>

مکان کارگاہ	ساعت کارگاہ	گرداننده کارگاه	عنوان کارگاه	رديف
سالن امام علی (ع) کارگاه شماره۲	۸:۰۰-۱۰:۴۵	سخنرانان	Rapid Oral Presentation	١
سالن امام علی (ع) کارگاه شماره ۱	۸:۰۰ — ۹:۰۰	دکتر مژگان کلانتری (رادیولوژیست) دکتر آزاده جولایی (جراح)	کارگاه رادیولوژی عنوان کارگاه: New Birads	۶
سالن امام علی (ع) کارگاه شماره۲	۱۰:۴۵–۱۳:۰۰	آقای علی قنبری مطلق (ریاست محترم اداره سرطان وزارت بهداشت)	in Round Table Breast Cancer Screening and Management	٣
سالن امام علی (ع) کارگاه شماره ۱	۹:۰۰ – ۱۱:۰۰	آقای دکترگودرز مزدایی (رادیوتراپیست⊣نکولوژیست) خانم دکتر پرستو حاجیان (رادیوتراپیست⊣نکولوژیست)	کارگاه رادیوتراپی عنوان کارگاه: L. Breast RT with minimizing dose to the heart	۴
سالن امام علی (ع) کارگاه شماره ۱	14:15:8.	دکتر ماریزیو ناوا (جراح از ایتالیا) خانم دکتر ناهید نفیسی (متخصص جراح سرطان)	کارگاہ جراحی۱: technical approach in: NAC sparing mastectomy	۵
سالن امام علی (ع) کارگاه شماره۲	14:•• – 15:••	خانم دکتر طاهره کرمانی رنجبر (روانپزشک)	روانشناسی در سرطان عنوان کارگاه: Grief therapy in cancer	۶
سالن امام على (ع)	۱۶:۳۰-۱۸:۳۰	آقای دکتر هادی زاده (جراح سرطان)	کارگاہ جراحی عنوان کارگاہ: رادیوتراپی حین عمل (IORT)	Y
سالن امام علی (ع) کارگاه شماره ۱	۱۶:۰۰ – ۱۸:۰۰	آقای دکتر اربابی (پزشک عمومی)	كارگاه پزشكان عمومي	٨

۸–۶ اسفند ماه ۱۳۹۳

## برنامه کارگاه های جانبی

# دهمین کنگره بینالمللی سرطان پستان

# (روزسوم)

# جمعه ۱۳۹۳/۱۲/۸

مکان کارگاه	ساعت کارگاہ	گرداننده کارگاه	عنوان کارگاه	رديف
دانشکده پزشکی دانشگاه شهید بهشتی	٨:٣٠-١٣	خانم دکتر مریم رسولی (دکترای پرستاری)	ھمایش پرستاری	١
سالن امام, علی (ع) کارگاه شماره ۱	λ:· · - ۱ · :۳·	دکتر ماریزیو ناوا (جراح از ایتالیا) خانم دکتر نفیسی (متخصص جراح سرطان) آقای دکتر محمد هادی زاده (متخصص جراح سرطان)	کار گاہ جراحی۲: technical approach in: Breast reconstruction	۲
سالن امام، علی (ع) کارگاه شماره۲	λ:•• – ١•:••	خانم دکتر مریم علمدار (روانپزشک)	روانشناسی در سرطان عنوان کارگاه: Sexual rehabilitation in breast cancer	٣
سالن امام علی (ع) کارگاه شماره ۱	۱۰:۳۰-۱۲:۳۰	خانم دکتر هدیه ساغری (متخصص رادیولوژی از امریکا)	کارگاه رادیولوژی عنوان کارگاه:بیوبسی زیر سونو	٤
سالن امام علی (ع) کارگاه شماره۲	۱۰:۰۰ – ۱۲:۰۰	خانم دکتر آروین هدایتی (روانشناس)	روانشناسی در سرطان عنوان کارگاہ: Breaking bad news	٥
سالن امام علی (ع) کارگاه شماره ۱	17:80-18:80	دکتر پرتو حسنی زاده (رادیولوژیست) دکتر مریم نوری (رادیولوژیست)	کارگاه رادیولوژی عنوان کارگاه: Breast MRI	۷
سالن امام علی (ع) کارگاه شماره۲	17:80-18:80	سخنرانان	Rapid Oral Presentation	٨

چکیدہ سخنرانی های دهمين كنگره بينالمللي سرطان پستان

## Implementation of 3D imaging with synthesized 2D images (C-View<sup>TM</sup>)

#### Dr saghari

A brief overview of implementation of digital breast tomosynthesis in the screening setting will be presented.

The aim of this review is to provide an overview of digital breast tomosynthesis in the screening population. The audience will learn how to identify and confidently diagnosis benign pathology on screening breast tomosynthesis without need for additional imaging. In addition they will be able to recognize suspicious and malignant features on screening breast tomosynthesis and learn how to tailor a more focal diagnostic workup based on tomosynthesis findings (e.g., additional mammographic imaging versus breast ultrasound).

## Minimally Invasive Approaches in Diagnosis and Treatment of Breast Cancer

#### Mohammed R S Keshtgar BSc, FRCSI, FRCS (Gen), PhD

Professor of Cancer Surgery and Surgical Oncology university College London, Royal Free Hospital london, United Kingdom

Breast cancer is the most common cancer in women worldwide. We are getting better in diagosing and treating the disease using multi-modality treatment.

In my presentation, I will highlight the latest advances in the minimally invasive techniques in diagnosis and treatment of breast cancer with empahsis on the research that is undergoing in my Institution. These will include use of Breast PET, intra-operative diagnosis of sentinel node, intra-operative radiotherapy, intra-operative surgical margin determination and photodynamic therapy.

## Obesity as an Important Risk Factor for Certain Types of Cancer (Such as Breast Cancer)

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Cancer is the uncontrolled and unrestricted growth of malignant cells in the body. It is a multifactorial disease which either heredity or environmental factors (such as nutrition, physical inactivity, alcohol, obesity, exposure to sun, environmental pollutants, infections) contribute to the incidence of cancer. In recent years, several lines of research have focused on obesity as a potent risk factor of cancer. Scientific evidence suggests obesity is associated with increased risk for a number of different types of cancer. The evidence is most consistent for endometrial cancer, breast cancer in postmenopausal women, and renal cell cancer. More contradictory results have been reported for colorectal, prostate, and pancreatic cancer. In despite of numerous studies in regard to the link between obesity and cancer, The molecular mechanisms in which obesity increase the risk of cancer have been poorly understood. In this article, the association between obesity and cancer risk and its underlying mechanisms are reviewed.

Key words: Cancer, Obesity, Adipocyte, Adipokine, Leptin, Adiponectin, Signaling

## There have been more controversies about the management of the axilla during the past three

#### Mehran Habibi

#### years than ever in the past.

Management of the axilla in breast cancer patients has evolved from routine axi llary lymph node dissection (ALND) for all patients to a highly selective approa ch based on the assessment of the sentinel lymph nodes (SLNs) as well as tumor and patient characteristics. Although ALND continues to have an important rol e in staging and regional control for many breast cancer patients, recent trial res ults question the need for routine ALND in patients who have positive SLNs. A pproximately 40 percent of patients with a positive sentinel lymph node (SLN) will be found to have residual disease in the axilla

## **Categorization of SLN Metastases**

The size of the largest tumor deposit is used in classification of SLN metastases **Isolated tumor cells** (ITC)-

- Small clusters of cells not greater than 0.2 mm, or nonconfluent or nearly conf luent clusters of cells not exceeding 200 cells in a single histologic lymph node cross section. ITCs are considered prognostically similar to node negative patie nts. Malignant cells in regional lymph node(s) no greater than 0.2 mm are desig nated as pN0(i+). Isolated tumor cells are not considered an indication for furthe r axillary surgery, radiation treatment, or adjuvant systemic therapy.

## Micrometastases

- A separate designation of pN1mi (>0.2 mm and no greater than 2.0 mm) to indi cate micrometastases alone. Although patients with micrometastases are conside red node positive and it seems intuitive that the finding of axillary micrometasta ses should worsen prognosis, most studies show no change or only a small redu ction in patient survival compared with those without micrometastases. Howeve r, some analyses suggest a negative impact of micrometastases on breast cancer outcomes, including regional recurrence rate.

#### Macrometastases

The 2005 American Society of Clinical Oncology (ASCO) guidelines and 2010 National Comprehensive Cancer Network (NCCN) guidelines recommend that

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routine completion ALND be carried out for patients with SLND macrometastas es ( $\geq 2$  mm). However, the indications for a completion ALND in patients with <3 positive sentinel nodes is the subject of controversy. This is discussed in deta il below.

## Completion axillary dissection with BCT

The need for completion axillary lymph node dissection (ALND) in women wit h clinically node negative T1 or T2 tumors is dependent upon the SLND finding s. The indications for a completion axillary dissection are evolving.

There is general acceptance for the following approaches:

For patients with a negative sentinel lymph node biopsy (SLND), completion A LND is **not** indicated.

Patients with a SLND showing isolated tumor cells only are considered node ne gative for prognostic purposes and completion ALND is **not** indicated.

For patients with a positive SLND showing micrometastases or macrometastase s in **three or more nodes**, detected with standard hematoxylin and eosin (H&E) examination, completion ALND is recommended for staging purposes and to ensure .local control. The timing of the procedure (ie, immediate [one operation] versu s delayed [two separate operations]) does not seem to affect the total lymph nod e yield or the rate of long-term complications (particularly lymphedema). The n eed for a completion ALND in patients with a positive SLND showing microme tastases or macrometastases in **less than three nodes** has been questioned.

The SLN is the sole tumor bearing node in up to 60 percent of cases overall, and in almost 90 percent of patients who harbor only micrometastatic disease. These observations have led to speculation that completion ALND may not be necessary in selected patients with a positive SLND in less than three nodes because the need for systemic therapy is established and the risk of an axillary recurrence a ppears to be low.

However, a retrospective review of 17 studies (randomized control trials, prosp ective studies) with at least two years of follow- up supports performing a complete axillary node dissection in select patients that meet the followingcriteria:

- Palpable or needle- biopsy- proven axillary metastasis
- Positive sentinel node undergoing a mastectomy without radiation therapy
- Three or more positive sentinel nodes

Patients who undergo an ALND are at a higher risk of complications, such as ly mphedema, arm pain or numbness, or reduced quality of life, in comparison wit h women who undergo a SLND only.

## NCCN

The National Comprehensive Cancer Network (NCCN) has not changed their g uidelines and continues to recommend completion ALND for all women with p ositive sentinel nodes until additional randomized trial results are available. Ho wever, a distinction can be made between isolated tumor cells, micrometastases, and macrometastases, in terms of clinical management, especially because at le ast 22 percent misclassification of sentinel node metastases has been demonstrat ed. In light of this, omission of the ALND can be considered if the tumor burde n appears low (eg, in cases with isolated tumor cells or micrometastases) when whole breast radiation with high axillary tangents is planned. Additional results are pending from two

ongoing randomized trials studying the benefit of ALND for clinically node ne gative women with

positive SLNs: the EORTC 10981-22023 AMAROS trial; and Trial 23-01 of the International Breast Cancer Study Group (IBCSG)

## ASCO 2014 guidelines

For patients with <3 positive sentinel lymph nodes (with or macro metastases f ound by sentinel node biopsy), ASCO 2014 guidelines advise a completion axill ary node dissection should not be performed if there is no evidence of bulky met astatic disease or gross extra capsular extension and the patient is treated with w hole breast irradiation.

## Age >65 years

A positive SLND followed by a completion ALND did not improve allcause or breast-cancer-specific survival in women over 65 years of age.

## Mastectomy and completion ALND

— Management of a negative and positive SLN identified in conjunction with a mastectomy is discussed separately.

## SLND IN SPECIAL CIRCUMSTANCES

Sentinel lymph node dissection (SLND) is evolving in selected clinical settings.

## Locally advanced and inflammatory breast cancer

Most studies have restricted SLND to T1 or T2 breast cancers <5 cm in size, si nce larger tumors have a higher likelihood of positive axillary nodes. However, some studies have shown that SLND is accurate in patients with T3 tumors and clinically negative axillae. Thus, many clinicians do not recognize large breast t

umors as a contraindication to SLN dissection, as long as the axilla is clinically negative. However, patients with T4 tumors (locally advanced) or inflammatory breast cancer are not considered candidates for SLND. The false negative rate is high in patients with inflammatory breast cancer, presumably because of the pr esence of partially obstructed, functionally abnormal subdermal lymphatics.

The 2005 ASCO guidelines on SLND did not recommend the routine use of SL ND in patients with locally advanced or inflammatory breast cancer for whom ALND was recommended to ensure locoregional control. Consensus recommen dations from an International Expert Panel published in 2010 considered inflam matory breast cancer to be the one of the few absolute contraindications to SLN D. In addition, SLND was not recommended for T4 tumors.

## Neoadjuvant chemotherapy

Many women with large primary breast tumors are offered neoadjuvant chemot herapy prior to definitive locoregional therapy. The optimal timing for sentinel 1 ymph node biopsy (SLND) in patients receiving neoadjuvant therapy has been d ebated, as some have reported a higher false negative rate for SLND performed after induction therapy, while others have not.

#### Multicentric disease

Studies that evaluated the functional anatomy of lymphatic drainage support th e theory that all quadrants of the breast drain into the same lymph node(s). Thus , subareolar and intradermal (rather than peritumoral) injection of radiolabeled c olloid or blue dye render SLND feasible for patients with multicentric disease.

#### Ductal carcinoma in situ

Most women with ductal carcinoma in situ (DCIS) do not require assessment of the axillary nodes, particularly if they are undergoing breast

- conserving therapy. However, women with DCIS may be candidates for SLN mapping if they are undergoing mastectomy, because the performance of SLND will be impossible at a later time if invasive disease is found. An intact breast w ith its lymphatic plexus is necessary for injection of both the blue dye and the ra dioisotope tracers.

Some recommend that SLND be considered in patients who are undergoing bre ast conserving therapy or mastectomy for DCIS only if the risk of node metastas es is increased, as with extensive high-grade DCIS, a strong suspicion of invasive disease based upon ancillary imaging, or documented microinvasive disease in the core biopsy. However, if a partial mastectomy is performed and i nvasive disease is identified, a SLND can be done as a separate operation. This approach can minimize unnecessary morbidity, since SLND can be associated with complications. SLND is generally performed if microinvasion is found in t he breast biopsy or if mastectomy is required for extensive or multifocal DCIS, where the risk of an occult invasive component is increased. If metastases are fo und on SLND, the disease stage would change accordingly.

## **O2-01**

# Assessment of flatness and Symmetry of intraoperative radiotherapy beam fields by radio chromic EBT-2 films

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**Introduction**: Symmetry and flatness tests should be done by using suitable 3D motorized water phantom or appropriate radio chromic films and slab phantoms. The aim of this work is to check symmetry and flatness of Intraoperative Radiotherapy (IORT) fields by using EBT-2 films and beam profiles at 6,8,10 and 12 MeV.

**Methods and materials**: Four pieces of EBT-2 films cut into  $10 \times 12.5 \text{ cm}^2$ .Then films were scanned before and after irradiation. EBT-2 films put in reference condition (applicator 10 cm and 0<sup>o</sup> angel) and between vertical slab systems. Then, films irradiated in four energies 6, 8, 10, 12 MeV, separately. After irradiation, by using MATLAB software and selection of appropriate pixels can draw profiles. Flatness aria is in 80% filed size. Flatness and symmetry were obtained by special formulas. For assessment of flatness, maximum and minimum dose must be achieved and for analyzing symmetry, dose in corresponding points in central axis in profile should be measured.

**Results**: Flatness for 6, 8, 10,12MeV energies were measured 3.6, 3.2, 1.7 and 2.9, respectively. Also, symmetry measurement in order for above energies were obtained 1, 1, 0.9, and 0.9.

**Conclusion**: absorbed dose variation inside the 80% of the field size (50% isodose) must be less than 3%. In our results, flatness was acceptable for all energies (just for 6, 8 MeV a little is bigger than 3%). Also, maximum

absorbed dose between points equidistant from central beam axis, inside the 80% of field size must be less or equal 3% and our measurements of symmetries were equal or under 1%. Symmetry and flatness of IORT beam fields seems acceptable and reliable for all energies and it is appropriate for treatment condition.

**Key words:** symmetry, flatness, intraoperative radiotherapy, radio chromic EBT-2 films.

## 03-02

## Breast Ultrasound: Benign or Malignant, What to do?

#### Dr saghari

Breast ultrasound plays a significant role in woman's imaging and identifying malignances. There are many lesions that may appear benign but warrant intervention or close follow up. At the end of this lecture the audience will be able to identify these lesion. In addition to appropriate imaging approach to common symptoms such as pain, breast lumps (in various ages) and abnormal breast exam will be reviewed.

Hands on Ultrasound Guided Breast Biopsy with Vacuum Assisted Needles Workshop Completely hands on approach to perform an ultrasound guided breast biopsy.

#### **O3-04**

## Breast Cancer Cells Reaction to Serum Starvation and Steroid Restriction

#### Maryam Nakhjavani<sup>1</sup>, Farshad H. Shirazi<sup>1</sup>, David J. Stewart<sup>2</sup>

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Breast cancer is still one of the most deadly diseases in women. Beyond synthesizing new anticancer agents, a proper cancer treatment needs a better understanding about the biology of the cancer, to provide a better view on newer chemotherapeutics. The cells at the center of a tumor bear metabolic stress and suboptimal growth conditions and following chemotherapy and tumor shrinkage they face favorable growth conditions. In the current study, the reactions of human breast adenocarcinoma cell line, MCF-7, in harsh metabolic stress conditions was studied. In this regards, the cells in culture plates were exposed to different serum concentrations (10%, 0.5%, 0.25% and 0%) with/out steroids for up to 6 days. At 24-hour intervals, cell morphology (inverted light microscopy), Cell cycle (flow cytometry), mitochondrial content (MTT assay) and protein content (SRB and Biorad protein assay) were analyzed. In addition, in each day, the cells were released in media containing 10% serum and the cells were analyzed with the above-mentioned tests. The results of this study showed that serum starvation could cause a delayed G<sub>1</sub>-S transition and re-stimulation with serum could facilitate this transition. Furthermore, sub-G1 population of the cells does not increase dramatically along with starvation. Serum starvation did not decrease cell proliferation; rather increased cell proliferation was observed, accompanied by decreased cell size. In this status, intracellular content of cells mitochondria and protein was also increased. However, when steroid restriction was also exerted, besides reduced growth rate and proliferation, cells protein content was also reduced, while mitochondrial content of the cells was not decreased. Releasing the cells in 10% serum led to increased foci formation (as a marker of cell aggressiveness), cell size, protein and mitochondrial content. These results

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along with the evidences of low cell death in the form of apoptosis or autophagy, confirmed that MCF-7 is a relatively resistant cell line to harsh metabolic stress, and even after a long period of 6-day starvation, re-exposing the cells to optimal environmental conditions can facilitate their reentry to normal cell life again.

Keywords; MCF-7, Serum Starvation, Steroid

## **O3-05**

## Trends in the distribution of breast cancer in the Sultanate of Oman and the modalities of treatment

## Dr.A.Alajami

Breast cancer represents the highest cancer in terms of incidence in females in Oman. Females with breast cancer in Oman tend to be younger than Western counterpart, Majority of patients present in advanced stage and tumours display aggressive features.

Description of clinico-pathological features of the disease in Oman with analysis of prognostic factors and survival.Small proportion of patients have breast conserving surgery, majority received pre-operative chemotherapy compared to the past ad this is due to locally advanced nature of disease. The survival and disease free survival to other Asian and Arab Countries.

The advanced presentation explain in part the inferior survival figures to white-American and European females. The following are strongly recommended to improve morbidity and mortality:

1) Increase breast cancer awareness.

2) Introduction of breast screening programs.

3) Multi-disciplinary approach in the management.

4) Molecular biology and genetic research to further explore breast cancer in Oman

## Empowering patients in Decision Making Process in breast cancer surgery: PICTURE European Trial

#### Mohammed R S Keshtgar BSc, FRCSI, FRCS (Gen), PhD

Professor of Cancer Surgery and Surgical Oncology university College London, Royal Free Hospital london, United Kingdom

Breast cancer is the most common cancer affecting women worldwide. It has become an increasingly treatable disease with a 10-year survival rate exceeding 80%. It is usually treated with surgery, often in conjunction with radiotherapy and systemic treatments. Two types of surgery are available:

- breast-conserving surgery (also known as lumpectomy) or
- mastectomy (i.e. the partial or complete removal of the breast).

However, even breast-conserving surgery can affect the appearance of the breast, a prospect that can cause a great deal of stress. Therefore, a good aesthetic outcome is an important consideration in breast cancer therapies and is closely linked to the patient's psychological recovery and self-image after treatment. Yet for an estimated 30% of women treated with breast-conserving surgery, the result is less than ideal aesthetically. Unfortunately, to date there is no objective way to assess or predict the aesthetic outcome of breast cancer treatment.

We are developing tools to enable the patient's aesthetic appearance after treatment to be objectively evaluated. Current techniques use subjective methods, such as assessment by an expert panel, or computer analysis of twodimensional photography to estimate, for instance, breast asymmetry. By adopting recent developments in low cost three-dimensional photography and depth sensing technology, we are developing a standardised, reproducible analysis tool which bases the aesthetic outcome evaluation on both the threedimensional shape of the reconstructed breast and its volume. This will establish standardised quality assurance and evaluation procedures, enabling institutions across Europe to be compared and factors that have a positive or negative impact on surgical outcome to be identified. I will present the European funded project "Patient Information Combined for the Assessment of Specific Surgical Outcomes in Breast Cancer" (PICTURE. The goal of the project is to create, validate, and demonstrate a system for the patient-specific planning, evaluation, prediction, and quantification of the outcome of breast-conserving surgery. The PICTURE demonstrator will support surgeons in surgical planning prior to the operation. It is also designed to aid patient-clinician communication by visualizing the foreseen outcome, and thereby empowers patients to take an active role in a Shared Decision Making process.

## Outcome of Different Timings of Radiotherapy in Implant-Based Breast Reconstructions

Maurizio B. Nava, M.D.Angela E. Pennati, M.D.Laura Lozza, M.D.Andrea Spano, M.D. Milvia Zambetti, M.D.Giuseppe Catanuto, M.D. Milan, Italy

**Background:** The therapeutic role of postmastectomy radiation therapy has been demonstrated both in locally advanced breast cancer and in other highrisk conditions. Implant-based breast reconstruction for irradiated patients can generate higher complication rates. In this study, the authors observed the effects of radiation on temporary expanders and permanent implants. The estimate of the totally failed reconstruction rate was the principal endpoint of this study.

Capsular contracture rates and patients' and surgeons' subjective evaluations were the secondary endpoints.

**Methods:** Two hundred fifty-seven patients were consecutively involved in this study. The population was stratified into two groups: group 1, postmastectomy radiation therapy on permanent implants (n ! 109 patients); and group 2, postmastectomy radiation therapy on tissue expanders (n ! 50 patients). A nonirradiated control group made up of 98 patients was selected randomly. All patients underwent a two-stage immediate breast reconstruction with subpectoral temporary expanders and permanent implants.

**Results:** The totally failed reconstruction rate was significantly higher in group 2, with 40 percent of unsuccessful reconstructions compared with 6.4 percent in group 1 and 2.3 percent in the control group (p " 0.0001). The capsular contracture rate was significantly higher for groups 1 and 2 compared with the control group. The shape and symmetry assessment and the patients' opinions demonstrated a higher incidence of good results in group 1 in comparison with group 2. The best scores were always obtained by the control group.

**Conclusion:** This study demonstrated that radiotherapy during tissue expansion may compromise the outcome of implant-based breast reconstruction. (Plast. Reconstr. Surg. 128: 353, 2011.)

## CLINICAL QUESTION/LEVEL OF EVIDENCE: Therapeutic, II. Skin-Reducing Mastectomy

#### Maurizio B. Nava

M.D.Umberto Cortinovis, M.D.Joseph Ottolenghi, M.D.Egidio Riggio, M.D. Angela Pennati, M.D.Giuseppe Catanuto, M.D.Marco Greco, M.D.Guidubaldo Querci della Rovere, M.D. Milan, Italy; and London, United Kingdom

**Background:** The authors propose a combined flap technique to reconstruct large and medium-sized ptotic breasts in a single-stage operation by use of anatomical permanent implants.

**Methods:** The authors enrolled 28 patients fulfilling criteria for skin-sparing mastectomy and presenting with ptotic breasts whose areola-to-inframammary fold distance was more than 8 cm. All reconstructions were performed as a single-stage procedure. After preoperative planning, a large area in the lower half of the breast was deepithelialized according to the conventional Wise

pattern. Mastectomy was then carried out. To perform reconstructions, the infer medial fibers of the pectoralis major muscle were dissected and sutured to the superior border of the inferior dermal flap. An anatomical implant was then inserted into the pouch, which was closed laterally with the previously harvested serratus anterior fascia. Skin flaps were finally closed down to the inframammary fold.

**Results:** The authors performed 30 procedures on 28 patients. The medium size anatomical implants was 433 cc. Twelve women achieved symmetrization in a single stage ending in a symmetric inverted-T scar. The overall complication rate was 20 percent, with four cases (13 percent) complicated by severe, extensive necrosis of the skin flaps requiring implant removal.

**Conclusions:** Breast cancer treatment must nowadays optimize cosmetic results. This can be accomplished in selected cases by means of a single-stage operation that the authors call "skin-reducing mastectomy." The final scars imitate those of cosmetic surgery. Careful patient selection and improvement in the learning curve may reduce the complication rate. (Plast. Reconstr. Surg. 118: 603, 2006.)

## Optimal use of anti-HER2 agents for early stage breast cancer

#### Clifford Hudis, M.D.

Attending and Chief, Breast Medicine Service, MSKCC Professor of Medicine, Weill Cornell Medical College

Breast cancers that overexpress HER2 or have amplification of the gene that encodes this progein are called "HER2 positive" and are sensitive to anti-HER2 therapies such as trastuzumab. Several pivotal trials demonstrated that the use of one year of trastuzumab, beginning with the taxane portion of adjuvant therapy, is likely superior to other approaches. Pertuzumab, which binds a distinctly different region of the extra-cellular domain of HER2 is known to further improve outcomes in the metastatic setting and do increase the rate of pathologic response when given pre-operatively. Whether it will become standard in the conventional adjuvant setting remains to be determined although a large randomized trial addressing this issue is completed. For low risk patients, paclitaxel and trastuzumab may be considered based on very low event rates in a non-randomized trial but it is possible that newer and less toxic approaches, such as the trastuzumab-DM1 linked agent, could be useful here. The impact of hormone receptor status on these decisions is also being explored at present.

## O5-02 Palliative Therapy for TNBC

**Clifford Hudis, M.D.** Attending and Chief, Breast Medicine Service, MSKCC Professor of Medicine, Weill Cornell Medical College

Breast cancers that do not express the estrogen and progesterone receptors and also do not overexpress HER2 are collected together and labeled "triple negative". These tumors are not defined by a single molecular defect or target but some of them share deficient BRCA protein function, a basal genetic or phenotypic profile while others have unique attributes (such as expression of the androgen receptor). These tumors have recently been seen to represent a special challenge because on the one hand they may be especially sensitive to optimization of conventional adjuvant chemotherapy regimens, but on the other, they have not been effectively treated with less toxic targeted therapies. The latter challenge may be resolved through the growing recognition that these tumors are not a single entity but instead represent several or many distinct subtypes such that progress will be made through further dissection of their relevant biology. Recent advances building on this approach include the demonstration that platinum salts may be more active in TNBC when BRCA mutations are present, activity for PARP inhibitors in both mutation carriers and also in patients given specific chemotherapy agents, and demonstration of activity for a range of single agents in selected patients such as those with expression of the androgen receptor positive treated with anti-Androgens.

## O6-04 Breast Biopsy: New , Old and Pitfalls

## Dr saghari

Overview of stereotactic biopsy of the breast old fashion way and with the new AFFIRM 3D device. The course covers the techniques, roles and fundamentals of stereotactic guided biopsy with AFFIRM. The audience will learn the pitfalls of breast biopsy including sampling, hard to see lesions and the controversies regarding benign surgical lesion. They will be able to refer the appropriate patients to the surgery and the predictors of upgrading a lesion.

## 07-01

## **PROPOSAL:** Screening for breast cancer managements plan proposal for Iranian social security, Ministry of Welfare and Social Security (Iran), Planning and understand the cost of preventive medicine comparing to the cost of treatment.

#### **Dr.D Hendesi**

Subject: the existing program from Social Security Organization, were the medical services are provided directly through 73 hospitals and 270 medical clinics owned by the Social Security Organization.and find out the number of the breast cancer was treated and diagnosed from beginning to end and during last 5 years, This will allow Us to recommends biennial screening mammography for women 50-74 years. And analysis an individual one and take patient context into account, including the patient's values regarding specific benefits and harms to Conclude from those data and making screening managements plan for the next 5 years by reducing and substitute the cost of breast cancer treatments by prevention with triple screening plan including the Clinical, mammography and ultrasound managements plans. The Screening mammography can help reduce the number of deaths from breast cancer among women ages 50 to 74. The Potential limitations of screening mammography include false-positive results, overdiagnosis and overtreatment, false-negative results, and radiation exposure. In surgery, for example, value depends on not only the surgeon but also the anesthesiologist, the nurses, the radiologist, the skilled technicians, and others, all performing well. Yet no matter how skilled the surgical team, the overall care cycle is crucial. Unless the patient's problem is accurately diagnosed, the patient is properly prepared, and recovery and rehabilitation are managed well, patient results will suffer. Indeed, the impact of the cycle of care is even broader. Value may be enhanced by not performing the surgery at all, and treating the case in a different way. Value may be still greater if preventive care and advice is provided over time so that little or no treatment is needed at all. The Women's are Doing breast cancer screening one time a years after age of 40 years, The triples screening start -first at age of 20 years by inspection and palpations

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both breasts himself,-Second clinical examination with physician every 3 years between 20 to 39 years, and one time after 40.

Because in order to making choices for triples screening the economic justification is necessary facing the selective prevention Vs regular treatments plans. Also by educating the peoples eating conveniently, advise to doing the sport regularly, and stop smoking, reducing fatty foods, and using high fiber foods, the Breast cancer triples screening managements plan are seen with the respect to the patient risk factors including the Gender, GENETICS Family history, BODY Obesity, Not having children, High breast density, certain breast changes, and Menstrual history, LIFESTYLE : A sedentary lifestyle, Heavy drinking, PREVIOUS TREATMENTS: Birth control pills, Combined post-menopausal hormone therapy (PHT), Diethylstilbestrol exposure (DES), Radiation exposure, In order to make a meaningful survival analysis, basic cancer and patient characteristics such as age at initial diagnosis year of initial diagnosis, in additional Cancer stages, cancer primary sites, and gender are necessary, the health care system to deliver care that is both more affordable and of higher quality. Then how we can learn from the social security practices during last past 5 years data, making it's the farther used for screening breast cancer, and highly likely for others cancers prevention managing plans as well. The Diagnostic mammography takes longer than screening mammography because more x-rays are needed to obtain views of the breast from several angles and used for women's between 40-74 years The Australian Breast Screen Program was launched, The Australia agreed to fund the national mammography program. Today, there are 550 locations via fixed, relocatabe or mobile screening units in the country. Breast Cancer: Screening Release Date: November 2009 the Women, Age 50-74 Years. in USA The USPSTF recommends biennial screening mammography for women 50-74 years. For Women, Before the Age of 50 Years, The decision to start regular, biennial screening mammography before the age of 50 years should be an individual one and take patient context into account, including the patient's values regarding specific benefits and harms.

## **O7-02**

## Cost saving in Armed forces insurance Organization without Sacrificing the Quality of Care

#### Dr Farshad Najafipour\* Dr Amir Norouzi\*\*

\*CEO of Islamic republic of Iran Armed forces insurance organization

\*\* Head of Health insurance research center, Islamic republic of Iran Armed forces insurance organization

**Introduction:** Due to insurance coverage for cancer patient in armed forces insurance organization, the mentioned organization has endeavored a great deal of financial burden on itself. Regarding to its mission which is" Higher quality of care with Lower prices", armed forces insurance organization have turned to Strategic Purchasing for cares, drugs and equipment.

**Method:** This qualitative study designed based on content thematic analysis method. In first step, a stakeholder analysis was performed to detect experts with prior experiences in these fields which can help us in this issue. Semi-structural interviews were performed, afterward thematic analysis was performed and solutions were categorized in five main categories.

**Result:** The selected solutions were as follow; Establishment of a cancer center for managing cancer among covered population, Cancer guideline adaptation under supervision of medical universities, hold contract with medical facilities which can offer their care due the guidelines and enter our patients data in a pre-designed information system, reorganization of costly drugs and care and involve them in strategic purchasing cycle.

**Conclusion**: The best way to cut costs in an insurance organization is to provide an effective management system without cutting back the covered services.

Key words: Insurance, company, cancer, Strategic purchasing

## **O7-07**

## Prebiotic foods in association with plasma levels of IGF-1 and IGFBP-3 in breast cancer patients

# Saeed Pirouzpanah<sup>1</sup>, Aynaz Tajaddini<sup>2\*</sup>, Ali Pourzand<sup>3</sup>, Zohre Sanaat<sup>4</sup>, Mohammad Asghari-Jafrabadi<sup>5</sup>

1-Assistant professor, Department of Biochemistry and Dietetics, Nutrition Faculty, Tabriz University of Medical Sciences, Tabriz, Iran

2-PhD student, Student's Research Committee, Nutrition Faculty, Tabriz University of Medical Sciences, Tabriz, Iran.

3-Full professor, Department of general Surgery, Faculty of Medicine, Tabriz University of Medical Sciences, Tabriz, Iran

4-Associate professor, Hematology and Oncology Research Center, Tabriz University of Medical Sciences, Tabriz, Iran

5-Assistant professor, Department of Statistics and Epidemiology, Faculty of Health, Tabriz University of Medical Sciences, Tabriz, Iran

High insulin like growth factor-I (IGF-I) levels, has been notice to be contributed in the malignant cells proliferation. It is well known that IGF-I associates inversely with the circulation level of IGF-binding protein-3 (IGFBP-3). However, few studies have denoted to the association of dietary factors on concerning biomarkers. Therefore, we aimed to investigate the relation between dietary intakes of prebiotics and plasma concentrations of IGF-1 and IGFBP-3 among Iranian women with breast cancer (BC) residing in North-West of Iran. A validated, food frequency questionnaire (FFQ) was completed by 170 women with BC (aged 25 to 65 years). Plasma concentrations of biomarkers were measured bv enzvme-linked immunosorbent assays (ELISA). Multivariate logistic regression models were performed. Our results showed that the higher amount of raw onion and garlic intakes were related to lower IGF-1 levels at ORs of 0.45(95%CI: 0.20-1.04) and 0.53(95%CI: 0.25-1.13), respectively. There was a positive trend of IGFBP-3 concentrations across the increasing intake tertiles of total and raw onion with ORs equal to 2.47(95%CI: 1.02-5.99) and 2.15(95%CI: 0.96-4.80), respectively. Additionally, we observed a statistically positive significant relation between average intakes of whole-wheat bread and IGFBP-3 levels

(P< 0.001). Our findings suggested that certain dietary prebiotics; in particular onion, garlic and whole-wheat bread intakes were in association with plasma IGF-1 and IGFBP-3 concentrations among BC patients. **Key Words:** Breast cancer, Prebiotics, IGF-1, IGFBP-3

## **O7-08**

## Effects of the Magnetic Resonance Field on Breast TissueExpanders

Maurizio B. Nava, M.D Milan, Italy

**Background** Tissue expansion for breast reconstruction after mastectomy is a safe and effective procedure. A magnetic resonance imaging (MRI) scan can be requested for patients with a breast expander to evaluate concurrent diseases. The electromagnetic field of the MR can interfere with biomedical devices, resulting in potential hazards, compromising the diagnosis, or creation of artifacts. Methods Four tissue expanders with an integrated magnetic valve were tested. The temperature increase was measured using an infrared camera in the MR scanner. The expanders were tested (half-full and full of saline solution) both free in air and immersed in a phantom. The ferromagnetic properties of the devices were assessed using the deflection angle method. To evidence artifacts due to the presence of the expander, MR images were acquired for expanders tested in air and in the phantom. A valve localization test was performed after MRI analysis.

**Results** A slight increase in temperature was demonstrated, without any clinical significance. The deflection angle due to the magnetic field depends on the distance from the bore of the magnet. The angle is higher when the device is closer to the bore. The presence of the magnetic valve influences the MRI signal, creating artifacts on the acquired images, even far from the valve itself. The valve localization test allowed verification of correct valve functioning for all the expanders after the MRI analysis. Conclusions Under selected conditions, MRI scans can be feasible. Heating is not expected to be a major concern, whereas valve displacement could happen in certain clinical conditions. The presence of artifacts is almost unavoidable. Level of Evidence III This journal requires that authors assign a level of evidence to each article. For a full description of these Evidence-Based Medicine ratings, please refer to the Table of Contents or the online Instructions to Authors.

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#### **O7-09**

## Relation between smoking or narcotics abuse and the recurrence of breast cancer in patients referred to an oncology clinic in Mashhad

Fateme Homaei Shandiz<sup>1</sup>, Fahime Afzaljavan<sup>2,3</sup>, Mahdi Rivandi<sup>2,3</sup>,

#### Sahar Ardalan<sup>2</sup>, Alireza Pasdar<sup>2,4</sup>\*

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2-Department of Modern Sciences & Technologies, Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran

3-Student Research Committee, Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran

4-Departments of Medical Genetics, Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran

Breast cancer is the most common malignancy among women in the world with different risk factors including smoking. The purpose of this study was to investigate the association between smoking or narcotics abuse and recurrence in breast cancer patients referred to an oncology clinic in Mashhad.

Medical records of 840 breast cancer patients (F=827 & M=13), whom referred to an oncology clinic in Mashhad were studied and data on age, sex, type of cancer, tumour size, recurrence and use of narcotics and smoking status were collected and analysed using SPSS version 21 software.

The mean age of patients was  $49.73\pm0.425$  y. The most frequent type was Invasive ductal carcinoma (94%) and the least frequent (0.1%) was high grade large cell lymphoma. 13.8% of the patients were smokers (11.2% cigarettes, 49.1% tobacco) and 39.6% had also addiction to narcotics. The statistical analysis indicated an association between smoking and disease recurrence (p<0.024) but there was no association between smoking and tumour size and also between smoking and lymph node involvement (p=0.176  $\phi$ =0.413 respectively). According to our results, appropriate interventions and proper education seemed to be essential for reduction of exposure to these compounds in breast cancer patients. This may, in turn, cause a reduction in breast cancer recurrence.

Key words: breast cancer, addiction, smoking, recurrence.

## O8-01 Expander and Implant Reconstruction

**M. B. Nava** Milan, Italy

Breast reconstruction is an extremely sophisticated subject and the reconstruction strategies differ a lot between so-called "reference centres" and between each specialist. It is often thought that the application of the autologous flaps is the wisest solution. In our centre we use them, nevertheless principally to the high-risk patients, undergoing radiotherapy. I such cases only the flap based operations are advisable; in our institution we prefer to perform the least invalidating DIEP flaps that allow muscle preservation, avoiding alterations of body biomechanics.

If the radiation therapy hasn't been neither performed, nor planned, it is possible to reconstruct a female breast with a use of an implant. A skinsparing mastectomy leaves the opportunity to a big variety of reconstructive strategies, including: reduction, augmentation, both often with a contralateral breast treatment. In those cases a careful planning, together with modern implants and new surgical techniques lead to the achievement of very high aesthetic results, comparable with a look of natural breasts or these after the aesthetic surgery.

To perform a successful reconstruction, a first thing is to choose an adequate type of the incision during a skin sparing mastectomy: large and ptotic breast may request an inverted T incision, but if the ptose is more moderate a transverse access or even periareolar in case of smaller breasts should become enough.

The second step consists in the proper planning of the reconstruction strategy. In reference to breast size and patient's wish a breast may be augmented or reduced. Small breasts may permit a one-stage-reconstruction, but usually a previous expander insertion is needed. In breasts with a moderate grade of ptosis we use autoprostheses in addiction to the implant and in larger we perform the inferior pedicle breast reduction. Breast implants have been چکیده سخنرانیهای دهمین کنگره بینالمللی سرطان پستان

designed for the aesthetic purposes. Since the first application in 1962, by Dow Corning, six following generation have been designed and released on the market, including the most recent one, released in 2004 by Inamed: the style 510 dual gel. Its posterior part is filled with the standard cohesive silicone gel like the one of the Style 410; the anterior part is filled with a special, high-cohesive gel. This feature provides more projection and support of the nipple-areola area. Even with use of those modern products the achievement of the projection in the reconstructed breast is not an easy task. In order to establish a fullness of the upper pole of the breast, we have started to inject an autologous fat. It has dramatically improved the surgery outcome. Our late experience consists of Two-hundred-thirty-four women with a mean age of 47 years (range 19-67 years) who underwent extra-projection based reconstructions. Two-hundred-thirty-eight were inserted (four bilateral procedures). The mean follow-up time was 18 months (range 12-45 months). A peculiarity of our study was that a total of 197 (84%) patients received contra-lateral procedures, including 82 augmentations, 55 mastopexies, and 60 breast reductions. In our experience we haven't found any malignancies in the contra-lateral specimen. The rest of patients (10%) had no symmetrisation on the contra-lateral breast as a personal request. The highest rate of positive opinion is reported in patients who underwent augmentation (74%) and the highest rate of bad opinion in those who received a mastopexy (10.4%).

The final results should resemble those of a cosmetic surgery with implants; the highest satisfaction rates are reported for patients treated by contra-lateral augmentation while ptotic breast on the healthy side, when reshaped without prosthetic devices, tend to recur with the highest level of bad ratings. Therefore we may confirm that a breast-reconstructive surgery should no longer be a procedure leading to just compelling results. Due to our modern techniques, especially the fat injection to the upper pole, the result can be easily compared with the aesthetic surgery outcomes.

فهرست تفصيلى مقالات پذیرفته شده

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# **Rapid Presentation**

## R2 - 01

**5 years study of patients with lactating adenoma and review of the literature** Asiie Olfatbakhsh<sup>\*1</sup>, Zahra Gholizadeh<sup>2</sup>, Parisa Hoeinpour<sup>3</sup>

R2 - 02

Study Prevalence of BRCA1/2 Common Mutations in East Azerbaijan Province, Iranian Breast Cancer Patients Using High Resolution DNA Melting Analysis

Shiva Koorehpaz Asl1\*, Majid Farshdousti Hagh2, Laya Farzadi3

R2 - 03

Developmental competence of immature oocytes aspirated from antral follicles of ovarian cortex as a method for fertility preservation

Fereshteh Safian<sup>1</sup>MSc, Mohammad Ali Khalili<sup>1,2</sup> \*PhD , Mojgan Karimi Zarchi<sup>3</sup> M.D. , Mehdi Mohsenzadeh<sup>2</sup> MSc.

R2 - 04

Health-Promoting Lifestyle in Breast Cancer Survivors: In Relation to Depression and Social Support

Fatemeh Moghaddam Tabrizi<sup>1</sup>, Marzieh Ebrahimi<sup>2</sup>, Elham Sadeghi<sup>3</sup>

## R2 - 05

Correlation of Abortion with the Risk of Recurrence and Tumor Size in Breast Cancer Patients

Fatemeh Homaei Shandiz<sup>1</sup>, Sahar Ardalan<sup>2</sup>, Mahdi Rivandi<sup>2,3</sup>, Fahime Afzal Javan<sup>2,3</sup>, Alireza Pasdar<sup>2,4</sup>\*

## R2 - 06

## Yoga management of breast cancer-related lymphoedema

Farkhondeh jamshidi1\*, Arezoo shayan2, Zahra maasumi3

## R2 - 07

## Evaluation the Relationship Between Serum Levels of Malondialdehyde and Breast Cancer Risk in Women

Parisa Kangari<sup>1\*</sup>, Somaiye Ebadollah zade<sup>1</sup>, Soltan Ali Mahboob<sup>2</sup>, Ali Reza Nourazarian<sup>3</sup>, Amir Mansour Vatankhah<sup>4</sup>, Abdolrasool Safaiyan<sup>5</sup>, Vahid Montazeri<sup>6</sup>

## **R2 - 08**

# Association study of rs1219648 in FGFR2 and rs1042522 in TP53 with premenopausal breast cancer in an Iranian Azeri population

Zahra Saadatian<sup>1&2</sup>, Jalal Gharesouran<sup>1</sup>, Morteza Ghojazadeh<sup>1</sup>, Sahar Ghohari-Lasaki<sup>1</sup>, Najime Tarkesh-Esfahani<sup>3</sup>, Seyyed Mojtaba Mohaddes Ardebili<sup>1</sup>\*

#### R2 - 09

The effects of hydro alcoholic extract of sage (Salvia officinalis L.) leaves on cultured mouse breast cancer cells

Sara Behroozi Moghaddam<sup>1\*</sup>, Malihe Monsefi<sup>2</sup>, Rahele Masoudi<sup>2</sup>

## R2 -10

**Breast Cacer During Pregnancy Can Be Treated as in Nonpregnant Women** fereshteh choobsaz

#### R2 - 11

Protective impacts of Ziziphus Jujube on biochemical and hematological factors in NMU-induced breast cancer in rats

Dr. Reyhane Hoshyar<sup>1</sup>, Zabihollah Mohaghegh<sup>2</sup>, Nihad Torabi<sup>3</sup>, Aliyeh Abolghasemi<sup>2</sup>, Iman Nakhei<sup>1</sup>

## **R2 - 12**

**Study of epidemiology of Breast Cancer in Maragheh, Iran (2007-2012)** Atefeh Keyvani<sup>\*1</sup>, Hasan Hosainzadegan<sup>2</sup>

## R2 - 13

Health-Related Quality of Life and its related factors among women with breast cancer

Majid Hassan zadeh1\*, Ali khalafi2, Zohreh zandi3

## R2 - 14

**CK19 expression in the peripheral blood of breast cancer patients** Nasrin Karimi<sup>\*1</sup>, Mana Oloomi<sup>2</sup>, Zahra Orafa<sup>3</sup>

## **R2 - 15**

Comparative evaluation of lung absorbed dose in different methods of radiotherapy after mastectomy

Shayesteh .S (Phd)<sup>1</sup>, Eivazi. M.T(Phd)<sup>2</sup>, Amirifard.N (MD)<sup>3</sup>, Shiri.I (MSc)<sup>1</sup>\*

## R2 - 16

**Can Breast Cancer Survival by Risk Factors? Machine Learning Models** Mitra Montazeri <sup>1, 2</sup>, Mohadeseh Montazeri <sup>3</sup>, Mahdieh Montazeri <sup>4,\*</sup>, Abbas Bahrampour <sup>5</sup>

### R2 - 17

Early Detection of Breast Cancer: a Study on the Breast Blood Variability by the Breast Phantom Accompanied by Vessels

Parinaz Mehnati<sup>1</sup>, Maede Jafari Tirtash<sup>2\*</sup>, Mohammad Sadegh Zakerhamidi<sup>3</sup>

## R2 - 18

Effect of Combine Decongestive Therapy and the quality of life in breast cancer patients after mastectomy

Marzeih heidari

## R2 - 19

Effect of crab shell extract on the viability and morphology of breast cancer cells in vitro

Rezakhani L<sup>1</sup>, Mirzapur p<sup>1</sup>, Khazaei M<sup>1</sup>, Khazaei MR<sup>1</sup>

#### R2 - 20

Effect of Patient\_ Care giver Education program On Cancer Related Self-Efficacy in Breast Cancer Patients.

Zahra Kochaki Nejad <sup>\*1</sup>, Alireza Mohajjel Aghdam <sup>2</sup>, Hadi Hassankhani <sup>3</sup>, Zohreh Sanaat <sup>4</sup>

### R2 - 21

Eligible women's knowledge about the importance of breast self-examination and education in Tabriz health centers in 93

\*1M. Ansari,<sup>2</sup>F. Mohammadi,<sup>3</sup>Minoo baradaran,<sup>4</sup>Azizeh behruzi ,<sup>5</sup>doctor Nasser rahbari farzoo

## R2 - 22

Evaluation of the relationship between axillary lymph nodes involvement and Ki67 over expression in Breast cancer patients

Soodabeh shahidsales<sup>1</sup>, Mehdi Asadi<sup>2\*</sup>, Seyed Amir Aledavood<sup>1</sup>, Kazem Anvari<sup>1</sup>, Marjaneh Mirsadraee<sup>3</sup>, Maryam Nemati<sup>4</sup>

#### R2 - 23

**Dose history of induced abortion increases the risk of breast cancer?** Farnoosh Moafi<sup>1\*</sup>, Fatemeh Samiei Siboni<sup>2</sup>, Marzieh khatooni<sup>3</sup>, Hamide Hajnasiri<sup>4</sup>

## R2 - 24

Evaluation of the expression of mir-21 oncomir, new diagnostic and prognostic molecular marker in tissue and blood of breast cancer patients Elaheh soleimanpour<sup>1</sup>, Mohamad-ali hosseinpour feizi<sup>1\*</sup>, Esmaeil Babaei<sup>1</sup>

#### R2 - 25

Designing and Cloning of cytolethal distending toxin B as Biological Tool against cancer

Hajar Yaghobi<sup>1</sup>, Mojgan Banhehpour<sup>2\*</sup>, Bahram Kazemi<sup>3</sup>, Ali Ghanbari Asad <sup>4</sup>

#### R2 - 26

## Development of Novel Molecular Drug Candidates Using Molecular Docking Techniques in the Context of Breast Cancer

Nedasadat Vaghefi nezhad<sup>1</sup>, Samaneh Fazeli Farsani<sup>\*2</sup>, Seyedeh Nooshin Zaker<sup>3</sup>, Mostafa Ghaderi-Zefrehei<sup>4</sup>

### R2 -27

#### Folate; friendly or enemy nutrient

Seyedeh Parisa Moosavian<sup>1</sup>

## R2 - 28

An Investigation into the Epidemiological Trend of Breast Cancer in the World, particularly in Iran

Azam Garavandi<sup>1</sup>, Sheida Sepahi<sup>2</sup>, Dr. Nahid Khademi<sup>3</sup>

#### R2 - 29

**Homocysteine and Breast Cancer** 

Mohammad Bagher Maljaie<sup>1</sup>

## R2 - 30

**Properties of TGFαL3-SEB fusion protein as a ligand targeted superantigen in breast tumor-bearing mice following intravenous or intratumoral injection** Forough Yousefi<sup>\*1</sup>, Seyed Fazloallah Mousavi<sup>2</sup>, Seyed Davar Siadat<sup>3</sup>, Abbas Ali Imani-Fooladi<sup>4</sup>, Mohammad Mehdi Aslani<sup>5</sup>, Omid Nasiri<sup>6</sup>

## R2 - 31

Knowledge, attitude and practice of female students of Maragheh faculty of medical sciences on breast cancer

Hasan Hosainzadegan<sup>1</sup>, Nader Mahdavi<sup>2</sup>, Hadi Naghdian<sup>3</sup>, Amir Zayerekabeh<sup>3\*</sup>, Farzaneh Jafarzadeh<sup>3</sup>, Ghazal Davarpanah<sup>3</sup>

#### R2 - 32

The investigation of amount of awareness, attitude, and performance of women over 20 years old with a positive breast cancer in family history in Markazi province

Nadia Mashayekhi<sup>1\*</sup>, Azita Mohsennejad<sup>2</sup>, Bahar ShahMohammadi<sup>3</sup>, FatemehZakeri<sup>4</sup>

## R2 - 33

The Investigation of Health Belief Model in Early Diagnosis of Breast Cancer in Patient's families in Arak Province

Azita Mohsennejad<sup>1\*</sup>, Nadia Mashayekhi<sup>2</sup>, Nahid Sharahi<sup>3</sup>, Parvin Mashayekhi<sup>4</sup>, Rozita Ayazi<sup>5</sup>

### R2 - 34

# Effect of 6 months aerobic training on plasma leptin levels as a breast cancer risk factor in postmenopausal women

Nasim Khosravi <sup>1\*</sup>, Azam Abdollah-pour <sup>2</sup>, Zohreh Eskandari <sup>3</sup>, Shahpar Haghighat <sup>4</sup>

#### R2 - 35

## Design and Characterization of a Peptide-Based Nanocarrier, MPG-H1iRGD, for Gene Delivery to Breast Cancer Cells.

Mohsen Alipoor<sup>1</sup>, Saman Hosseinkhani\*<sup>2</sup>, Reza Sheikhnejad<sup>3</sup>, Asia Majidi<sup>1</sup>

R2 - 36

**Physical Activity and Breast Cancer Prevention** 

Foad Asjodi<sup>1</sup>, Azimeh Izadi<sup>2</sup>

## **R2 - 37**

**Pregnant women' knowledge, attitudes and perceptions towards breast cancer prevention: a questionnaire study in Besaat hospital in Sanandaj.** Seyedeh Soma Zakariaee<sup>1</sup>, Seyed Salman Zakariaee<sup>2\*</sup>.

#### R2 -38

Using docking procedure and molecular dynamic simulation to design peptides, drived from Herceptin

Paniz Sulek<sup>1</sup>, Negin Nematinia<sup>1</sup>, Najme Dehghan<sup>2\*</sup>

## R2 - 39

Study of Reaction in the Biological Components of Breast Exposed to Light Source Near-Infrared Wavelength

Maede Jafari Tirtash<sup>1\*</sup>, Parinaz Mehnati<sup>2</sup>, Mohammad Sadegh Zakerhamidi<sup>3</sup>, Karim Shamsasenjan<sup>4</sup>

#### R2 - 40

IncRNA ROR is a good way to detect Breast Cancer

Reza Sahebi

## R2 - 41

# Evaluation of serum Ischemia modified albumin (IMA) levels in breast cancer patients

Somayeh ebadollahzadeh<sup>1</sup>\*, parisa kangari<sup>1</sup>, Sultan ali mahboob<sup>2</sup>, Ali reza nourazarian<sup>3</sup>, amir mansoor vatankhah<sup>4</sup>, Abdol rasol safaeian<sup>5</sup>, Vahid montazeri<sup>6</sup>.

## R2 - 42

The Effect of Breast Feeding and Breast Cancer Incidence in Women with Breast Cancer

Somayeh Ramezanli<sup>1\*</sup>, Fatemeh Hashemi<sup>2</sup>, Marzieh Kargar Jahromi<sup>3</sup>

## R2 - 43

The Effect of Training Quality of Life and Coping Strategies on Functional Scale of Quality of Life in Women with Breast Cancer

Somayeh Ramezanli1\* , Fatemeh Hashemi2

## **R2 - 44**

The Impact of Education on Symptomatic Scale of Quality of Life in Women with Breast Cancer

Somayeh Ramezanli1\*, Fatemeh Hashemi2

## R2 -45

Uniformity of dose distribution in target volume in radiotherapy techniques for breast after Mastectomy

Shayesteh .S (MSc)<sup>1</sup>, Eivazi. M.T(Phd)<sup>2</sup>, Amirifard.N (MD)<sup>3</sup>, Shiri.I (MSc)<sup>1</sup>\*

## R2 -46

Yoga and psychological health of breast cancer

Sima Ghezelbash<sup>1</sup>, Azam Ghorbani<sup>2\*</sup>, Sahar Ghezelbash<sup>3</sup>

## R2 -47

Knowledge, attitude and practice about breast cancer screening among students of Tehran University of Medical Sciences, in 2010

Zeinab Tavakol<sup>1</sup>, Seyede Zahra Banihosseini<sup>2</sup>, Asieh Mansouri<sup>3</sup>

## R2 -48

The roles of  $\omega$  3-fatty acid in breast cancer protection

Seyedeh Parisa Moosavian<sup>1</sup>

#### R2 -49

**Predicting the survival in breast cancer using Hidden Markov Model** Madadizadeh Farzan<sup>1</sup>, Montazeri Mitra<sup>2,3</sup>, Bahrampour Abbas<sup>4\*</sup>

## R2 -50

Bioinformatics analysis of potential role of miR-520f in patients with breast carcinoma

Marzieh Mehskat<sup>1</sup>, Kamran Ghaedi<sup>2\*</sup>, Hamzeh Mesrian Tanha<sup>2</sup>, Mansoureh Azadeh<sup>34</sup>, Mahboobeh Meshkat<sup>1</sup>

## R2 -51

Association between SHBG gene polymorphism (rs 5790) and breast cancer susceptibility

Nastaran Haghighi<sup>1</sup>, Zahra Tahmasebifard\*<sup>2</sup>, Nahid Nafisi<sup>3</sup>

## R2 -52

Association of Breast Cancer Risk with a Common Functional Polymorphisms of fas 1377 and fas ligand 844.

Zahra Tahmasebi Fard1\*, Nahid Nafisi 2Afsoon Taghavi3

R2 -53

Expansion and characterization of breast cancer stem cells for the development of BCSC targeting therapeutic strategies

Dehghan Kouhestani Somayeh<sup>1</sup>, Forouzandeh Moghadam Mehdi<sup>1\*</sup>

## R3 -01

**Evaluation of sonographic and mammographic appearances of invasive lobularcarcinoma in breast cancer research center since 1380 to 1392** Toktam Beheshtian<sup>1\*</sup>, AsiieOlfatbakhsh<sup>2</sup>, Zahra Gholizade<sup>3</sup>

## R3 -02

Epidemiological review of the situation of Breast cancer that have been registered in pathologic labs Under coverage Iran University of Medical Sciences (IUMS) from 2011- 2013

Rita Motidost Komleh<sup>1</sup>\* – manochehre karimi<sup>2</sup> - Ali Golmohammady<sup>3</sup>

## R3 -03

Evaluation of benzoxaloyl coumarins induced cell death in MDA-MB-231 Triple negative breast cancer cell line

Vahideh Imeni<sup>1</sup>, Soheila Koohestanimobarhan<sup>2</sup>,

Farahnaz Nourmohammadian<sup>3</sup> Siamak Salami<sup>4</sup>\*

## R3 -04

The association between Vitamin D status and risk of breast cancer: a casecontrol study

Jamshidi Naeini Y<sup>1</sup>, Abdollahi M<sup>2</sup>, Ajami M<sup>3</sup>, Akbari ME<sup>4</sup>, Davoodi H<sup>5</sup>

#### R3 -05

The effectiveness digital mammography compared to the analog mammography for breast cancer diagnostic and screening: systematic review Bita Sadat Zegordi<sup>1</sup>, Ali Akbari Sari<sup>2</sup>,Payam Haghighat-Fard<sup>3</sup>, Mohammad Moradi-joo<sup>4</sup>, Banafsheh Darvishi<sup>3</sup>, Aidin Aryan Khesal<sup>4\*</sup>

## R3 -06

## New methods of treatment for breast cancer

Arezoo shayan<sup>1\*</sup>, Farkhondeh jamshidi<sup>2</sup>, Maryam asadi<sup>3</sup>, Sima kiani rad<sup>4</sup>, Shahin tohidi<sup>5</sup>

## R3 -07

Effectiveness of Group Training Based on Acceptance and Commitment Therapy on Anxiety and Depression of Women with Breast Cancer

Sahar Mohabat-Bahar<sup>1</sup>, Fatemeh Maleki-Rizi<sup>2</sup>, Mohammad Esmaiel Akbari <sup>3</sup>, Mohammad Moradi-joo <sup>3</sup>

#### R3 -08

Heavy Metals Contamination of Milk and Dairy Products and Risk of Cancers

S. Esmaeili<sup>1,2</sup>, H. Davoodi<sup>\*2,3</sup>

R3 -09

The Six family of homeobox genes and related mechanisms in diseases Marzieh Armat<sup>1, 2</sup>, Taiebeh Oghabi Bakhshaiesh<sup>1, 2</sup>, Mohammad Saied Hejazi<sup>3</sup>, Nasser Samadi <sup>4\*</sup>

#### R3 -10

The effects of vitamin C administration on conventional treatment in patients with breast cancer: A review

Neda Rezvani<sup>1\*</sup>, Saeed Pirouzpanah<sup>2</sup>

R3 -11

اثربخشی آموزش گروهی ذهن آگاهی و درمان مبتنی بر پذیرش و تعهد بر افزایش کیفیت زندگی

زنان مبتلا به سرطان پستان

سحر محبت بهار، فاطمه ملکی، دکتر محمد اسماعیل اکبری، محمد مرادی جو

## R3 -12

بررسی اثربخشی درمان شناختی \_رفتاری مبتنی بر الگویی ۸ مرحلهی کش بر بهبود تصویر تن و

بهزيستى روان شناختى زنان مبتلابه سرطان يستان

بیتا باوادی'، حمید پورشریفی'، فرح لطفی کاشانی"

#### R3 -13

خودمدیریتی در نوجوانان جهت پیشگیری از سرطان سینه فاطمه علایی کرهرودی

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تبیین ادراک بیماران مبتلا به سرطان پستان از نیازهای مراقبتی بیماران

طاهره السادات خوش نظر <sup>۱</sup>، مریم رسولی<sup>۲</sup> ، محمد اسماعیل اکبری<sup>۳</sup>، فرح لطفی کاشانی<sup>۴</sup>، سیروس مومن زاده<sup>۵</sup> موسی سحادی<sup>2</sup>

## R3 -16

عدم قطعیت در بیماری در زنان مبتلا به سرطان پستان و عوامل مرتبط با آن

موسی سجادی'، مریم رسولی\*۲، عباس عباس زاده۲، حمید علوی مجد۲

## R3 -17

نقش miRNA ها در سرطان پستان

الهام ذنوبی ۱ %، مهرداد بهمنش

### R3 -18

Effect of injecting AuNPs on performance of AccuBoost brachytherapy system in patients with early-stage breast cancer using Monte Carlo method Hossein Pourbeygi<sup>1</sup>, Habibeh Ghasemi<sup>2</sup>, Parivash Mohammadi<sup>3</sup>, Akbar Sarabiasl<sup>4</sup>

#### R3 -19

Role Of Ovarian Sleep With Gnrh Analogs During Chemotherapy For Fertility Preservation In Young Patient (Up To 40 Years) With Breast Cancer(Study Of 54 Patients In Ostad Alinasab Hospital And Oure Clinic In Tabriz)

Alikaram Hedayati Godarzi ,Fatemeh Hedayati , Zahra Mokarram Ghazani. Amir Mohammad Hedayati

#### R3 - 20

**Properties of TGFαL3-SEB fusion protein as a ligand targeted superantigen in breast tumor-bearing mice following intravenous or intratumoral injection** Forough Yousefi<sup>\*1</sup>, Seyed Fazloallah Mousavi<sup>2</sup>, Seyed Davar Siadat<sup>3</sup>, Abbas Ali Imani-Fooladi<sup>4</sup>, Mohammad Mehdi Aslani<sup>5</sup>, Omid Nasiri<sup>6</sup>

# پوسترهای

# دهمین کنگره بینالمللی سرطان پستان

## P1-01

## Effect of patient education on breast cancer

Shahin tohidi1\*, Arezoo shayan2, Zahra maasumi3

## P1-02

# The Evaluation of the Educational Plan of Breast Self-Examination of Women Referring to Health Centers

Zahra Dariush<sup>1\*</sup>, Marzieh Kargar Jahromi<sup>2</sup>, Mahnaz Kargar Jahromi<sup>3</sup>

## P1-03

#### Sexuality in women with breast cancer after treatment

Sima Kiani rad 1\*, Solmaz Kiani rad 2, Maryam Asadi 3, Arezo Shayan 4

## P1-04

# Spiritual Health in Breast Cancer

Shahin Tohidi<sup>1</sup>\*, Arezoo Shayan<sup>2</sup>

#### P1-05

## Treatment of hot flashes in women with breast cancer

Sedighe Frouhari <sup>1</sup>, Sima Kiani rad <sup>2\*</sup>, Maryam Asadi <sup>3</sup>, Arezzo Shayan<sup>4</sup>, Solmaz Kiani rad<sup>5</sup>

#### P1-06

## Supportive Care During Treatment of Breast Cancer Patients

Zahra Dariush<sup>1\*</sup>,Marzieh Kargar Jahromi<sup>2</sup>,Mahnaz Kargar Jahromi<sup>3</sup>

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Deregulation of microRNA in metastatic breast cancer as biomarkers and therapeutic targets

Parham nejati1\*, Shayesteh rezayani2, Ghasem khazai1

## P1-08

## A new strategy against cancer cells

Ali Ghanbari Asad<sup>1</sup>, Bahram Kazemi<sup>2\*</sup>, Mojgan Banhehpour<sup>3,</sup> Hajar Yaghobi<sup>4</sup>

## P1-09

## Aptamer and breast cancer

Hadiseh mohamadpour<sup>1\*,</sup> Sara danesh<sup>2</sup>

## P1-10

Investigation of association between miR-152 polymorphism with breast cancer in Isfahan population

Zahra Ghatreh Samani<sup>1\*</sup>, Majid Motovali-bashi<sup>2</sup>

## P1-11

Impact of psychological intervention on stress and depression in breast cancer patients

Marziah Pourvali.<sup>1</sup>, Ania Ahani Azari.<sup>2\*</sup>

## P1-12

Differential Diagnosis of Breast Cancers Using Texture Analysis of Magnetic Resonance Imaging

Abolfazl Moslemi<sup>1\*</sup>, Abolnaser Rostami<sup>2</sup>

## P1-13

Adjuvant Endocrine Therapy and Breast Cancer

Zare ommolbanin

## P1-14

## **Evaluation of Shoulder Girdle Strength after Modified Radical Mastectomy and Comparison with Healthy Participants**

Mahdie Akoochakian<sup>1\*</sup>, Mohammad Hossein Alizadeh<sup>2</sup>, Nader Rahnama<sup>3</sup>, Bahareh Mahmoudieh<sup>4</sup>,

## P1-15

Dendrosomal Nano-Curcumin is inducing apoptosis in MCF-7 and T47D breast cancer cell lines via down-regulating survivin expression

Aref Sobhkhizy<sup>1\*</sup>, Esmail Babaei<sup>2</sup>, Neda Jafari<sup>3</sup>

## P1-16

Arsenic Trioxide increases paclitaxel-induced apoptosis in resistant breast cancer cells

Tayebeh Oghabi Bakhshaiesh<sup>1,2</sup>, Marzie Armat<sup>1,2</sup>, Behzad Baradaran<sup>3</sup>, Mohammad SaeedHejazi<sup>1,4</sup>, Nasser Samadi<sup>1,5\*</sup>

## P1-17

**Targeted Therapy in Triple Negative Breast Cancer (TNBC): A Case Series.** Mehrdad Payandeh<sup>1</sup>, Fariba Falsafi<sup>2</sup>, Masoud Sadeghi<sup>3</sup>, Edris Sadeghi<sup>4\*</sup>

#### **P1-18**

Different Presentation of Treatment in Carcinomatous Meningitis of Breast Cancer: Report of 3 Cases

Mehrdad Payandeh<sup>1</sup>, Edris Sadeghi<sup>2\*</sup>, Masoud Sadeghi<sup>3</sup>, Mostafa Hossaini<sup>4</sup>

## P1-19

The association between triple negative breast cancer with hormonal and reproductive factors

Tafazzoli- Harandi H<sup>1</sup>, Olfatbakhsh A<sup>\*1</sup>, Mokhtari Hesari P<sup>1</sup>, Hashemi E<sup>1</sup>, Alavi N<sup>1</sup>

Assessing the *Psychological* effect of breast cancer on the patients' quality of life

Sourtiji atefe1\*, Zare Ommolbanin<sup>2</sup>

## P1-21

Association of Ki67 expression and CK19 detection in breast cancer patients Nasrin Karimi<sup>1\*</sup>, Mana Oloomi<sup>2</sup>, Mahmood Dehgani Ashkezary<sup>3</sup>, Seved Mahdi Kalantar<sup>4</sup>, Zahra

## P1-22

Knowledge and awareness about breast cancer among Zabol medical students

Aliyeh Sargazi<sup>1\*</sup>, Alireza Sargazi<sup>2</sup>, Zahra Sepehri<sup>3</sup>, Fatemeh Sepehri<sup>4</sup>, Morteza Salarzaee<sup>5</sup>, Fateme Sargazi<sup>6</sup>

#### P2-01

**Effectiveness of cognitive-therapy, stress management intervention on anxiety, depression and quality of life in women with breast cancer** Mina Galeshi<sup>1</sup>

### P2-02

Barriers to Perform BSE of the Viewpoint of Women Nurses Working in Hospitals Asadabad City of Hamadan in 2014

Nasrin Heidari<sup>1</sup>, Ziba Mohammadi<sup>2\*</sup>

## P2-03

Black tea and coffee consumption and breast cancer risk, new controversy Mohammad Bagher Maljaie<sup>1</sup>, Seyedeh Parisa Moosavian<sup>1</sup>

## P2-04

**In-silico analysis of rs1836724 and its related microRNAs in breast cancer** Fatemeh bagheri<sup>1</sup>, Mansooreh Azadeh<sup>23</sup>, Kamran Ghaedi<sup>4\*</sup>, Hossein Tabatabaeian<sup>5</sup>

#### P2-05

**Breast Cancer in Pregnancy (Areview Article)** Maryam Haydari

#### P2-06

Regulation of expression and/or activity of voltage-gated sodium channels; a therapeutic target in metastatic breast cancer

Shayesteh Rezayani<sup>\*1</sup>, Parham Nejati<sup>2</sup>, Ghasem Khazai<sup>2</sup>

## P2-07

# A pathologic study on breast biopsy in Zabol medical university of sciences hospital in 2014

Alireza Sargazi<sup>1\*</sup>, Aliyeh Sargazi<sup>2</sup>, Zahra Sepehri<sup>3</sup>, Fatemeh Sepehri<sup>4</sup>, Morteza Salarzaee<sup>5</sup>, Fateme Sargazi<sup>6</sup>, fateme allahi<sup>7</sup>

#### P2-08

## **Breast Cancer**

Mehran Motamedi,<sup>1</sup> Fatemeh ghasemi, <sup>1</sup>SAMAN REZAEE<sup>2</sup>, Maryam Emami<sup>3</sup>

P2-09

Clinical utility of positron emission mammography for breast cancer screening

Seyed Salman Zakariaee<sup>1\*</sup>, Shima Golbarg<sup>2</sup>, Seyedeh Soma Zakariaee<sup>3</sup>.

P2-10

**Combination Therapy of siRNA and Chemotherapy in Breast Cancer** Ghasem Khazaei<sup>1</sup>, Parham Nejati<sup>1</sup>, Shayesteh Rezayani<sup>2</sup>

## P2-11

Comparative quantification of target gene expression in Breast cancer cells byReal-time PCR method

Azam Salmani<sup>1</sup>\*, Zahra Orafa<sup>2</sup>, Mana Oloomi<sup>3</sup>, Reza Mahdian<sup>4</sup>, Sepide Arbabi Bidgoli<sup>5</sup>

#### P2-12

Comparison of Clinicopathologcal Characteristics in Metastatic Breast Cancer Patients: At Initial Presentation and in the Follow up Time

Esmat Alsadat Hashemi<sup>1\*</sup>, Hoda Tafazzoli<sup>2</sup>, AsiieOlfatbakhsh<sup>1</sup>, Parisa Mokhtari<sup>3</sup>

P2-13

Comparison of cytokeratin19 expression in various human breast cancer cell lines

Saeideh Keyvani-Ghamsari<sup>1\*,</sup> Mana Oloomi<sup>2</sup>, Zahra Orafa<sup>3,</sup> Azam Salmani<sup>4,</sup> Iraj Mehregan<sup>5</sup>

## **P2-14**

Study of the expression of apoptotic BAX and Bcl-2 genes in breast cancer cells treated with dendrosomal nanocurcumin

Neda Jafari<sup>1</sup>, Esmaeil Babaei<sup>2\*</sup>, Aref Sobhkhizy<sup>3</sup>

## P2-15

Coping Strategies Used in Women with Breast Cancer

Somayeh Ramezanli<sup>1\*</sup>, Fatemeh Hashemi<sup>2</sup>

## P2-16

Effect of hydro alcohlic extract of Citrullus colocynthis fruit on caspase 3 gene expression in MCF-7 breast cancer cell line

Roghayeh Davoudi<sup>1</sup>, Esmaeilzadeh Bahabadi S<sup>2</sup>\*, Najafi Sh<sup>2</sup>, Mahta Mazaheri<sup>3</sup>

#### P2-17

ection of CK19 Marker in the MCF7 and T47D Cell Lines by

**uunofluorescence Microscopy**Zahra Orafa<sup>1\*</sup>, Mana Oloomi<sup>2</sup>, Saeideh Keyvani<sup>3</sup>, tin Karimi<sup>4</sup>, Sepideh Arbabi Bidgoli<sup>5</sup>

## P2-18

Determining pattern of metastasis and prognostic factors in breast cancer using conditional regression model (PWP)

Mahmood Reza Gohari<sup>\*1,</sup> Parisa Mokhtari Hesari<sup>2</sup>, Zeinab Moghadami Fard<sup>3</sup>, Reza khodabakhshi<sup>4</sup>

## P2-19

Review on the role of EBV in breast cancer induction

Hasan Hosainzadegan<sup>1</sup>, Reza Parvan<sup>\*2</sup>

## P2-20

Effect of hydro alcoholic extract of Nigella sativa on Caspase3 gene expression in MCF7 cell line

Fathemeh Moshtaghi <sup>1</sup>, Sedigheh Esmaeilzadeh Bahabadi<sup>2</sup>, Mahta Mazaheri Naeini<sup>3</sup>\*, Shahla Najafi <sup>4</sup>, Fatemeh Dahmarde <sup>5</sup>

## P2-21

Evaluation of the relationship between axillary lymph nodes involvement And Ki67 over expression in Breast cancer patients

Soodabeh shahidsales<sup>1</sup>, Mehdi Asadi<sup>2\*</sup>, Seyed Amir Aledavood<sup>1</sup>, Kazem Anvari<sup>1</sup>, Marjaneh Mirsadraee<sup>3</sup>, Maryam Nemati<sup>4</sup>

## P2-22

Comparison of IL-25 and IL-17B in Apoptosis and Proliferation induction of breast cancer cell lines

Mahdieh Shokrollahi Barough<sup>1, 2,\*</sup>, Parviz Kokhaei<sup>1, 3</sup>, Fatemeh Pak<sup>1</sup>, Mehdi Barati<sup>1</sup>, Ehsan Manuchehri<sup>1, 2</sup>

## P3-01

Development of Novel Molecular Drug Candidates Using Molecular Docking Techniques in the Context of Breast Cancer

Nedasadat Vaghefi nezhad<sup>1</sup>, Samaneh Fazeli Farsani<sup>\*2</sup>, Seyedeh Nooshin Zaker<sup>3</sup>, Mostafa Ghaderi-Zefrehei<sup>4</sup>

## P3-02

Molecular signaling pathway analysis of MiR-155 targetome to decipher various molecular functions of miR-155 in breast cancer with respect to prevalence of vaginal candidiasis in patients

Mina Kazempour<sup>1\*</sup>, Kamran Ghaedi<sup>2</sup>, Mahboobeh Madani<sup>3</sup>

## P3-03

Evaluation of Focal magnification View in the assessment of mammographic abnormalities in Breast Cancer Research Center

Asiie Olfatbakhsh<sup>1</sup>\*,Toktam Beheshtian<sup>2</sup>,Zahra Gholizadeh<sup>3</sup>,Parisa Mokhtari<sup>4</sup>, Mandana Ebrahimi<sup>5</sup>

## P3-04

Green tea can be a protection factor for breast cancer

Seyedeh Parisa Moosavian<sup>1</sup>

## P3-05

Anti-oxidation of Green tea and breast cancer

Azam Ghorbani, Sima Ghezelbash<sup>1\*</sup>, Sahar Ghezelbash<sup>2</sup>

## P3-06

Impact of Diet on Breast Cancer Risk: A Review study

Azimeh Izadi<sup>1</sup>, Foad Asjodi<sup>2</sup>

#### P3-07

In Vitro Fertilization and Cancer Risk

Zare ommolbanin

#### P3-08

Association of Breast Cancer and its Therapy with Candida Infection Seyyed Saeed Aghili<sup>1</sup>, Seyed Reza Aghili<sup>2\*</sup>, Bahar Salmanian<sup>3</sup>

## P3-09

Knowledge, attitude and practice of female students of Maragheh faculty of medical sciences on breast cancer

Hasan Hosainzadegan<sup>1</sup>, Nader Mahdavi<sup>2</sup>, Hadi Naghdian<sup>3</sup>, Amir Zayerekabeh<sup>3\*</sup>, Farzaneh Jafarzadeh<sup>3</sup>, Ghazal Davarpanah<sup>3</sup>.

## **P3-10**

## Knowledge and women who are qualified to carry out the CBE Clinical breast Examination) in Tabriz health centers in 2014

M. Ansari, F. Mohammadi, doctor Nrahbari , doctor F. Sadeghi, Minoo Bardaran

## P3-11

Induction of Apoptosis in Human Breast Cancer MCF-7 Cell Line by Artesunate

Leila Jamalzadeh<sup>1\*</sup>, Reyhaneh Sariri<sup>2</sup>, Hosein Ghafoori<sup>3</sup>, Hale Hasani<sup>4</sup>

## P3-12

Life style and Breast Cancer

Zare ommolbanin

## P3-13

A Quick Review of Long Noncoding RNAs: A new paradigm in breast cancer pathogenesis, diagnosis, and therapy

Sara Malih<sup>1</sup>, Massoud Saidijam<sup>2\*</sup>, Narges Malih<sup>3</sup>

## **P3-14**

Enhances the Effects of Chemotherapeutic Agents in Human Breast Cancer Cells with Downregulation of XIAP Expression by RNAi

Mehdi Agha Gholizadeh

#### P3-15

Mediterranean Diet; Best Dietary Guideline to Fighting Breast cancer Mohammad Bagher Maljaie<sup>1</sup>, Seyedeh Parisa Moosavian<sup>1</sup>

#### P3-16

The role of Peer support on quality of life of women with breast cancer Maryam Momeni<sup>\*1</sup>, Fatemeh Hasan dost<sup>1</sup>, Fatemeh samiei siboni<sup>1</sup>, Marziveh Khatoni<sup>1</sup>

## P3-17

Estrogen Receptor- $\alpha$  A $\rightarrow$ G Mutation and the Breast Cancer Risk Sakineh Abbasi<sup>1\*</sup>, Mina Rasouli<sup>2</sup>, Samira Kalbasi<sup>3</sup>

## **P3-18**

The association between pancreatic function and genetic markers of obesity in breast cancer

Molood Nikkhah<sup>1</sup>\*, Elahe Abdollahi<sup>2</sup>

## P3-19

**Bioinformatics analysis of potential role of miR-662 in breast cancer patients:** inhibition of cytokine-cytokine receptor pathway

Nastaran Riahi<sup>1</sup>, Mansoureh Azadeh<sup>23</sup>, Kamran Ghaedi<sup>4\*,</sup> Hamzeh Mesrian Tanha<sup>4</sup>, HosseinSanati<sup>1</sup>

## **P3-20**

Nuclear Medicine breast imaging: Current status and future directions Seyed Salman Zakariaee<sup>1\*</sup>, Shima Golbarg<sup>2</sup>, Seyedeh Soma Zakariaee<sup>3</sup>.

## P3-21

Knowledge, attitudes, beliefs and practices of the Iranians about cancer: a systematic review of the previous studies

Mohsen Norouzi1\*, Sajad Norouzi2, Alireza eyshi3, Sadra Ansaripour4

## P4-01

Performance and attitude towards breast cancer in women over 18 years in the city of Shiraz, 1392

Arezoo shayan<sup>1\*</sup>,Shahin Tohidi<sup>2</sup>,Maryam Asadi<sup>3</sup>,Sima Kiani rad<sup>4</sup>, Farkhondeh Jamshidi<sup>5</sup>

#### P4-02

Quality of life in women with breast cancer

Fereshteh Najafi<sup>1\*</sup>, Saharnaz Nedjat<sup>1</sup>

#### P4-03

**Results of Breast Cancer Screening tests in Behbood Hospital in Tabriz** Fahimeh Sehhatie Shafaie<sup>1</sup>\*, Parvin Hadizadeh<sup>2</sup>, Somayeh Nagizadeh<sup>3</sup>, Soosan Valizadeh<sup>4</sup>, Bahman Zijah<sup>5</sup>

### P4-04

Comparison and Evaluation of Synthesis of Risk Factors in Breast Cancer and Provide a Model for Determine the Likelihood of Developing Breast Cancer Using by EM Algorithm in Data Mining Techniques

Mahdi Hemmasian-Ettefagh<sup>1\*</sup>, Mohammad-hossein Nadimi-Shahraki<sup>2</sup> Mahnaz Etehad-Tavakol<sup>3</sup>, Maede Behbahani<sup>4</sup>

## P4-05

In-silico analysis of hsa-mir-196a targetome pathway and its SNP function in patients with breast cancer: potential association between T allele and the risk of metastasis

Samira Kiani<sup>1</sup>, Hamzeh Mesrian Tanha<sup>2</sup>, Kamran Ghaedi<sup>2\*</sup>, Mansoureh Azadeh<sup>34</sup>

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Zohreh Jahanafrooz<sup>1\*</sup>, Nasrin Motamed<sup>2</sup>

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Zare ommolbanin

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Arezoo shayan<sup>1\*</sup>, Farkhondeh jamshidi<sup>2</sup>, Maryam asadi<sup>3</sup>, Sima kiani rad<sup>4</sup>, Shahin tohidi<sup>5</sup>

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Mahboobeh Meshkat<sup>1</sup>, Hamzeh Mesrian Tanha<sup>2</sup>, Kamran Ghaedi<sup>2\*</sup>,

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خديجه حكمت، سميه انصارى، ليلا رزم آراء \*\*

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Ali Abdolahi \*, hamid rezvani \*\*, Hamid reza mirzaei\*\*, Maryam Mohsenikia \*\*\*.

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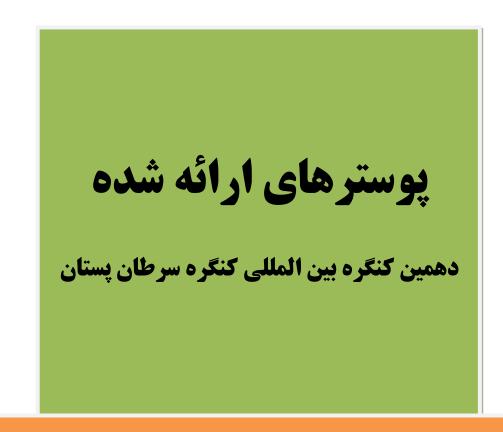
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بدیهی است در صورت تمایل به جستجو در مورد پوسترها ی این بخش از طریق کلیدهای ترکیبی Crrl+F امکان دسترسی میسر می گردد.





# Effect of patient education on breast cancer

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**Background:** Breast cancer is the most common cancer in women. The purpose of this study is overview of studies conducted in the fields of education and prevention of breast cancer.

**Materials and Methods:** The science direct google scholar SID databases were searched. Finally, 31 article were available was examined for review in the present study.

**Result:** Based on the results, prevention behavior was improved with Interactive computer programs, print media and lecture. The impact of computer-based training has been more than a counselor. Video instruction, increasing frequency in performing BSE. An interactive computer and interface improvement in breast cancer prevention knowledge. The computer-based patient education programs which are nowadays easy to install or use through the Internet. Education Causing reduce stress, systolic blood pressure and cortisol levels. Increase patient satisfaction, positive attitudes, subjective norms, perceived behavioral control and psychological factors, perceived sensitivity, screening and treatment of patients. Education spouses of women with breast cancer supportive care needs were reduced.

**Conclusion:** Training in different ways on prevention, quality of life, reduces of pain and pleasure of the experiences of patients with cancer of the breast.

Keywords: Patient education, breast cancer, prevention, education methods.





# The Evaluation of the Educational Plan of Breast Self-Examination Of Women Referring to Health Centers

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**Introduction:** Breast cancer is one of the most common malignancies in women worldwide especially in the developing countries. Existing methods such as mammography screening and breast self-examination(BSE) provides the possibility of early detection and can reduce mortality up to 25%. Since the prognosis in advanced stages of this disease is very bad, it is important to note high attention because women as wife or mother have great role. This study determined to study the effect of BSE education on women's knowledge and performances.

**Method:** This is an experimental research in which 50 women were randomly selected and put into case (n=25) and control (n=25) groups. At first, demographic information, knowledge and performance collected by observation and interview. Then, experimental group received two training sessions.

**Result:** The results showed that before the intervention no statistically significant difference was found between the two groups (Knowledge: p=0.08, performance: p=0.7). One month after training course the experimental group members showed a significant difference from the other group. (Knowledge: p<0.001 performance: p<0.001). It seems that BSE is effective in women.

**Conclusion:** It is useful to integrate the individual elements and social context in the design of a BSE program. Humans do such activities specifically for survival, healthy performance, continuous development and feeling good. It is hoped that the findings result in educational programs for women and help reduce breast cancer mortality. We suggest that future research should focus more on the understanding of how women weigh the risks and benefits concerning the personal and social factors, before they deny the efficacy of practicing BSE.

Key word: education, breast self-examination, females





## Sexuality in women with breast cancer after treatment

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## Abstract:

**Background:** breast cancer is one of the most common cancer in women. Screening and treatments of breast cancer have led to increasing rate of survival. So pay attention to the quality of life of these patients is important. Sexual function is an important element of quality of life. Therefore the aim of this study was review the changes in sexual function in women with breast cancer after treatment.

**Methods:** The following data sources were searched for relevant studies that were published in the English language by entering keywords" Breast cancer"," sexuality" and "Sexual functioning", between 1998 to 2014

**Results:** disturbances to sexual functioning reported following the diagnosis and treatment of breast cancer Include: dyspareunia, vaginal dryness, decreased libido and sexual arousal, difficulty achieving orgasm, decreased sexual activity, sexual dissatisfaction. Chemotherapy is associated with problem of arousal, lubrication, orgasm, vaginal dryness and dyspareunia. And evidence showed the negative relationship between sexual function and use of tamoxifen. Women treated with tamoxifen reported pain, burning or discomfort with intercourse, vaginal tightness, hot flashes and negative feelings during the sexual intercourse. Women who have had a mastectomy experience negative emotional changes such as negative body image, lack of attractiveness, loss of femininity and fertility, anxiety and depression, and that changes aggravated sexual problems. It should be noted that the factor predictive of sexual health in women after treatment is the quality of their relationship with the partner.

**Conclusions:** Breast cancer can have an impact on woman's sexuality, both psychologically and physically. Health care providers can play an important role in counseling and treatment patients with sexual problem.

Keywords: breast cancer, sexual dysfunction, treatment





# Spiritual Health in Breast Cancer

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**Background:** Breast cancer is the second leading cause of death. In addition to the medical, social and cultural dimensions as well. The purpose of this study is overview on breast cancer and spirituality.

**Materials and Methods:** The science direct, google scholar, SID and pubmed databases were searched. Finally, 21 article were examined for review in the present study.

**Result:** Based on the results, of cognitive behavior therapy with spiritual treatment method is better than cognitive behavior therapy mere. And the amount of hope, sleep, physical activity, depression, cortisol and cytokineth1 levels and quality of life in women with breast cancer was improved. spiritual perspectives correlated with recovery after illness. Cancer diagnosis leads to Becomes spiritual crisis. spiritual health disorder causes depression and spiritual health promotion Becomes to increase compatibility. Spiritual identity, strengthen coping techniques. And patients often utilize of spiritual beliefs as a way to get a sense during illness. And to deal and cope with the death rely on it.

**Conclusion:** Spirituality makes a positive impact on overall health and quality of life. The holistic care for patients with breast cancer with emphasis on Spiritual health is recommended.

Keywords: Spirituality, breast cancer, quality of life, Health.





# Treatment of hot flashes in women with breast cancer

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## Abstract:

**Background:** breast cancer treatments are very effective but may induce adverse events such as premature menopause. Most patient experience menopausal symptoms such as hot flashes. This symptom is the major complaint during treatment. Given that hormone therapy is contraindicated in these patients, and the use of non-hormonal therapies is recommended for these patients. Therefore the aim of this study was review the treatment of hot flashes in breast cancer patients.

**Methods:** To get the purpose of this study, we investigation related articles in pubmed, science direct and google scholar by entering keywords," hot flash"," vasomotor symptoms", "treatment" and " breast cancer " separately and combined. And related articles have been reviewed and evaluated.

**Results:** The studies showed that serotonin reuptake inhibitors, serotonin norepinephrine reuptake inhibitors, antihypertensives and anticonvulsants significantly reduced the number and severity of hot flashes in this patient.

**Conclusion:** Medications such as venlafaxine, paroxetine, citalopram, clonidine, gabapentin and Pregabalin can be used for treatment of hot flashes in women with breast cancer. It should be noted, the use of Fluoxetine and Paroxetine in patient being treated with Tamoxifen is not recommended, because reduce the efficacy of Tamoxifen. Black cohosh and phytoestrogens and sertraline will have little impact for treatment of hot flashes in these patients.

Keywords: hot flashes, breast cancer





# P1-06 Supportive Care During Treatment of Breast Cancer Patients

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# **ABSTRACT:**

**Introduction:** Breast cancer patients may have unmet supportive care needs during treatment, including symptom management of treatment-related toxicities, and educational, psychosocial, and spiritual needs.

Method: This study is written by review of the new library and internet articles.

**Result:** Delivery of supportive care is often a low priority in health-care settings, and is also dependent on resources available. This consensus statement describes twelve key recommendations for supportive care during treatment in many countries, identified by an expert international panel as part of the 5<sup>th</sup> Breast Health Global Initiative (BHGI) Global Summit for Supportive Care. Panel recommendations are presented in a 4-tier resource-stratified table to illustrate how health systems can provide supportive care services during treatment to breast cancer patients, starting at a basic level of resource allocation and incrementally adding program resources as they become available. These recommendations include: health professional and patient and family education; management of treatment related toxicities, management of treatment-related symptoms of fatigue, insomnia and non-specific pain, and management of psychosocial and spiritual issues related to breast cancer treatment.

**Conclusion:** Establishing supportive care during breast cancer treatment will help ensure that breast cancer patients receive comprehensive care that can help 1) improve adherence to treatment recommendations, 2) manage treatment-related toxicities and other treatment related symptoms, and 3) address the psychosocial and spiritual aspects of breast cancer and breast cancer treatments.

Key words: supportive care, treatment, breast cancer, patients





## **Deregulation of microRNA in metastatic breast cancer as biomarkers and therapeutic targets** Parham nejati<sup>1</sup>\*, Shayesteh rezayani<sup>2</sup>, Ghasem khazai<sup>1</sup>

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## Abstract:

Metastasis is the major reason for breast cancer-related death. A microRNA is a small non-coding RNA molecule, which known to be aberrantly expressed in cancer, with some functioning as tumor suppressors and others acting as oncogenes. they are potential biomarkers for disease diagnosis. According to published paper that compared the expression profile of miRNAs in breast cancer tissues and peripheral blood versus in control sample, proved that some miRNAs were up-regulated in breast cancer as oncomir but data have proven that some of these up-regulated miRNAs (miR-10b, miR-373 and miR-520c), exert their effects only in the metastatic cascade by influencing cancer cell adherence, migration, invasion. So according to this up-regulation and the role of these miRNA in metastatic processes, we can use mir-10b, mir -373, mir -520c as biomarkers. Emerging evidence indicates that the deregulation of miRs might play a crucial role in stimulation of cancer cell migration by regulation of gene expression, and identifies them as obvious novel candidate diagnostic and prognostic biomarkers, so represent a new class of therapeutics targets based on silencing of miRNA with the anti-miRNA oligonucleotides to hinder metastasis. Subsequently we can decrease the progression of metastasis and cancer mortality by using anti-mir-10b, anti-mir-373, and anti-mir-520c.

Keyword: breast cancer, metastasis, miRNA, Biomarker





## A new strategy against cancer cells

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## Abstract

for minimizing the suicide gene therapy side effects, we need to confine the lethal gene expression just to the cancerous target tissue. Hypoxia is present in the microenvironment of solid tumors such as breast tumors. The hypoxia-inducible factor (HIF) activates gene transcription via binding to the highly variable hypoxia responsive elements (HREs) in HRE-included genes. Consequently, pro-apoptotic gene Bax expression is increased and as a result will eliminate cancer cells. we want to use HRE element and BAX gene to make a new contract for killing cancer cells.

we were amplified BAX gene by PCR using specific primers with appropriate restriction enzyme sites in their ends and clone this gene in pcDNA3.1 (+) vector. After that, we were amplified HRE element from PGK gene and cloned in 3' of BAX gene that cloned before in PcDNA3.1 (+).

The construct was confirmed by colony PCR, restriction analysis and sequencing. Also HRE element amplified and colon in pcDNA3.1/BAX and confirmed by sequencing.

We make new construct for gene therapy. It is noteworthy that the use of HRE elements and suicide genes together can target cancer cells such as breast cancer cells and kill cancer cell without any side effects.

## Keywords:Gene therapy,Bax,Hypoxi,HRE





## Aptamer and breast cancer

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**Background:** Cancer is one of the death reason in the world. Breast Cancer is the most common malignancy in the world. In almost 20-30percent of Breast Cancer ,we can see the over expression of HER2. The drug delivery to target tumor cells is performed by Aptamer (DNA or RNA oligonucleotide) that can bind to wide target molecules like drugs and proteins. This process is related to the increase of the effectiveness of chemotherapy and the decrease of toxicity of cell .Antibodies identify their own target cells. But Aptamer identify the large amount of molecules. By SELEX method (isolating systematic of Ligand by Expotential enrichment), Aptamer can be isolated for proteins, drug, or chemical structure.

## Material and Method: studies of reviewed article in 2010 \_ 2013

**Results:** complex formed Aptamer \_doxorubician .To consider the feasibility of this method, Apt\_Dox was used as drug delivery system to the Breast Cancer Cells .And in HER2negative, **Apt\_Dox** causes to decrease the toxicity in Breast Cancer Cells and it was compared in HER2possitive with cytotoxic free apt\_dox and Dox that causes selective delivery.

**Discussion;**Aptamers can bind to the target cell by their own high affinity and special specificity, and can be used for targeting the Ligand in selective drug delivery.

Key word: Aptamer, Breast Cancer, HER2





# Investigation of association between miR-152 polymorphism with breast cancer in Isfahan population

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#### Abstract

Breast cancer is most common cancer among women in the world. Unlike many other diseases which have a single cause, breast cancer does consequence of the interaction between numerous factors comprise both genetic characteristics and lifestyle factors. Lately, researchers have begun to notice the role of miRNA and their polymorphisms in breast cancer. miRNAs are small, single stranded, and non-coding RNAs. The miRNAs deregulation in breast cancer was first reported in 2005. One of the causes of this dysregulation of miRNA expression is single nucleotide polymorphisms in those genes. This study aimed to investigate the possible relationship of the rs12940701 polymorphism in miR-152 gene and breast cancer, by the method based on RFLP-PCR for genotyping 200 cases and 100 controls. By using the SGD data base, DdeI enzyme was recognized suitable for identification of this polymorphism. By using the NCBI website the desired gene sequence was gotten and Oligo7 software was used for designing primers. The length and  $T_m$  of primers was studied by Oligo7 software, To evaluate the specificity of primers and its lack of binding to other parts of the genome Blast program was used and RFLP-PCR can be optimized for investigation of this polymorphism.

Key words: Breast cancer, miR-152, RFLP-PCR





## Impact of psychological intervention on stress and depression in breast cancer patients

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## Introduction

Cancer is one of the diseases that make a lot of changes in the process of life and social activities of people. Cancer patients usually have some degree of stress and depression. The usefulness of psychological intervention to improve the psychological symptoms in much research has proven. The present study was performed to evaluate the impact of training programs on the rate of psychological stress and depression of patients with breast cancer.

## **Material and Methods**

This aim of this study is a review for the latest findings about the impact of training programs on the rate of stress and depression in breast cancer patients. To approach the appropriate studies and articles websites search was performed and 20 articles in the field were studied.

## Results

In most studies it has been reported that 60-66.4% of breast cancer patients suffer mild to severe depression and psychological interventions have greatly reduced the levels of stress and depression of these patients .

## **Discussion and Conclusion**

Due to the positive impact of psychological interventions on reducing the rate of stress and depression among cancer patients' psychological interventions as a successful approach are offered. As well as establishment and strengthen the supporting centers for compatibility with this disease is very influential. Of course, more attention of Ministry of health, treatment and medical education on psychological training programs in hospitals is also necessary.

Keywords: Breast cancer, Stress, Depression, psychological intervention.





# Differential Diagnosis of Breast Cancers Using Texture Analysis of Magnetic Resonance Imaging

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## Abstract

The purpose of this study was the differential diagnosis between the two types of invasive breast cancer (Lobular and Ductal) using MRI images in MATLAB software. In this perspective study ,20 patients with pathological confirmed invasive breast cancer (10 lobular carcinoma and 10 ductal carcinoma) were examined. The images that analyzed included T1-w before and after contrast injection then these two sets of images were subtracted, after that these subtraction images were imported to MATLAB software for expected texture analysis. 10 gray level co-occurrence matrix texture features were obtained from each lesion. These features were compared in two types of breast cancers by statistical analysis. The data of these patients were categorized in two subgroups included ductal and lobular carcinoma (mean age:  $52.6 \pm 9.5$ ). The two groups were matched for age and sex with each other. The texture analysis based on co-occurrence matrix of two types of breast cancers showed significant differences (p=0.05). The results of this study indicated that texture analysis of MRI images can distinguish between two types of breast cancers. By using these results, we can assess breast lesions decision more accurately. Thereby texture analysis of breast lesions offering a new tool for radiological analysis of breast MRI.

Keywords: Breast cancer, MRI, MATLAB, Co-occurrence matrix





## Adjuvant Endocrine Therapy and Breast Cancer

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### Abstract BACKGROUND and OBJECTIVE:

Approximately 60% of breast cancers among premenopausal women express the nuclear estrogen receptor (ER+). Adjuvant endocrine therapy is an integral component of care for ER+ breast cancer, exerting its effect by reducing the availability of estrogen to micrometastatic tumor cells.

## **MATERIAL and METHOD:**

To present this review article, researcher used **Adjuvant endocrine therapy** and **breast cancer** as key words and searched the google scholar, Cochrane library ,Up-to-date and Pub-med sites, and the result was 10 articles, that after study all of them carefully we selected 5 of them, and use their data in this article.

## Findings:

Tamoxifen is currently the standard of care for premenopausal women with hormone receptor- positive early breast cancers. However, endocrine strategies in premenopausal women include not only estrogen receptor blockade with tamoxifen but also temporary suppression of ovarian estrogen synthesis by luteinizing hormone- releasing hormone (LHRH) agonists, or permanent interruption of ovarian estrogen synthesis with oophorectomy or radiotherapy. To prevent premature ovarian filure (POF), high risk, premenopausal women with early breast cancer were given a luteinizing hormonereleasing hormone analogue during adjuvant chemotherapy.

## **Discussion and Conclusions**:

These data showed that , in premenopausal patients with early breast cancer , the addition of an LH-RH analogue to adjuvant chemotherapy was well tolerated , prevented POF ,and was associated with excellent disease free survival and overall survival rates.

## Key words: Adjuvant EndocrineTherapy and Breast Cancer.





# **Evaluation of Shoulder Girdle Strength after Modified Radical Mastectomy and Comparison** with Healthy Participants

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## Abstract

**Introduction:** The purpose of this study was to compare shoulder strength between women with breast cancer and healthy, matched controls. Comparison with healthy subjects specifies whether the upper disorders due to cancer and subsequent treatment or due to the natural process of aging.

Method: Thirty-three postmenopausal women (51±6.46 years old) with breast cancer, on average, five years ago, the modified radical mastectomy surgery with axillary node dissection was completed, received chemotherapy and radiation therapy and thirty healthy postmenopausal women (53.26±5.05 years old) were selected. Shoulder strength was measured using a hand held dynamometer. Data were analyzed by MANOVA (P $\leq 0/05$ ).

**Results:** The findings indicate significant differences between groups for 6 of the shoulder girdle strength measure (shoulder flexion, internal rotation, external rotation, horizontal adduction, scapular abduction and upward rotation, scapular depression and adduction) and respectively %74/1, %65/3, %75/5, % 63/9, %61/3, %74/8 strength reduction in patients compared to healthy controls.

**Discussion:** The results indicate the importance of evaluating the shoulder girdle strength in women with breast cancer. Since, based on research findings, years after treatment, decreased shoulder girdle strength have been found in this patient, during the treatment and designing of training programs and rehabilitation for women with breast cancer, health care professionals need to be focused on special shoulder girdle strength factors.

Keywords: Breast Neoplasms, Axillary Node Dissection, Menopause, Shoulder Girdle Function.





## Dendrosomal Nano-Curcumin is inducing apoptosis in MCF-7 and T47D breast cancer cell lines via downregulating survivin expression

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#### Abstract

Breast cancer is one of the most common cancers among women but despite to the recent advances in cancer treatment, the lack of new treatment strategy with less side effect, is evident. On the other hand, common treatments have unwanted side effects. Nowadays refocusing on traditional medicine, not only for the safety of natural products but because of their rich complex chemicals with anticancer effects, is impressive. However, hydrophobic nature of phytochemicals prevent their absorption. Recent researches show that new form of curcumin called Dendrosomal Nano-Curcumin (DNC) has more anticancer effects and induces the apoptosis much more effective in compare to its free form. Therefore, in this study we have evaluated anticancer effect of DNC on down-regulating survivin and its variants as an anti-apoptotic oncogene in MCF-7 and T47D cell lines.

For this aim, toxicity effect of DNC (IC50) was estimated using MTT assay and respectively cells were treated in time and dose titration. Then, the expression of survivin and its variants evaluated using Real-Time PCR technique. Primary results suggest significant decreases in survivin and its variants expression. Overall, our results confirm the strong apoptotic effect of DNC which is associated with significant decrease in anti-apoptotic activity of Survivin.

Keywords: Breast cancer, Dendrosomal Nano-Curcumin, apoptosis, survivin, MCF-7, T47D





## Arsenic Trioxide increases paclitaxel-induced apoptosis in resistant breast cancer cells

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## Abstract:

A partial response or resistance to chemotherapeutic agents is considered as a main obstacle in treatment of patients with breast cancer. Refining taxan based treatment procedure using adjuvant or combination treatment is a novel strategy to increase the efficiency of chemotherapy. PPM1D expression was recently reported to modulate the recruitment of DNA repair molecules. In this study we examined the impact of arsenic trioxide on efficacy of paclitaxel-induced apoptosis in paclitaxelresistant MCF-7 cells. We investigated the expression of PPM1D and P53 in response to this combination treatment. Resistant cells were developed from the parent MCF-7 cell line by applying increasing concentration of paclitaxel. MTT assay applied to determine the rate of cell survival. DAPI staining using fluorescent microscopic technique was applied to study apoptotic bodies. Real-time RT-PCR analysis was also applied to determine PPM1D and p53 mRNA levels. Our results revealed that combination of arsenic trioxide and paclitaxel has a synergetic effect on MCF-7/PAC resistant cells by decreasing the IC50 value from 500 to  $250 \pm 0.11$  nM. Applying arsenic trioxide also caused a significant decreases in PPM1D mRNA level (p< 0.05). Our findings suggest that arsenic trioxide Increases paclitaxel-induced apoptosis by down regulation of PPM1D expression. PPM1Ddependent signaling pathway can be considered as a novel target to improve the efficacy of chemotherapeutic agents in resistant breast cancer cells.

**KEY WORDS:** Combination therapy, arsenic trioxide, resistant breast cancer, taxan.





# Targeted Therapy in Triple Negative Breast Cancer (TNBC): A Case Series.

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# ABSTRACT

**Background:** At least 20% of breast cancers are characterized by triple-negative receptor status (negative for estrogen receptor (ER), progesterone receptor (PR), and HER2. Human epidermal growth factor receptor (EGFR) is a member of the EGFR/ErbB/HER family of Type I transmembrane tyrosine kinas receptors.

**Patients and Methods:** Nine patients had TN-EGFR-positive with MBC. EGFR positivity was defined as staining in >10% of tumor cells by Immunohistochemistry. In total, nine patients was enrolled that the mean age was 46.7 years. All patients been from kurdish ethnicity in west of Iran. Patients received erlotinib 150mg daily.

**Conclusion**: This suggests there may be a subset of TN, EGFR- positive MBC for whom EGFRdirected therapy may be suitable or that the natural history of their disease was indolent. Future studies to determine molecular and clinical profiles of patients likely to benefit from EGFR-TKI therapy.

Keywords: Breast Cancer, Erlotinib, Targeted Therapy, Triple Negative





# Different Presentation of Treatment in Carcinomatous Meningitis of Breast Cancer: Report of 3 Cases

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## Abstract

**Background:** Leptomeningeal metastasis refers to the multifocal seeding of the leptomeninges by malignant cells. Carcinomatous Meningitis (CM) occurs in approximately 5% of patients with breast cancer. Herein, we suggest that IT can use in treatment of breast cancer patients with CM before of any treatment until can prevent of going patient to debilitating phase of this disease.

**Patients and Methods:** Three patients with high risk breast cancer with leptomeningeal metastasis: A 62 year-old Kurdish woman with a history of lung tuberculosis. Her cerebrospinal fluid was positive for malignant cells. She treated with intrathecal chemotherapy and died 3 months after diagnosis of CM. In cerebrospinal fluid (CSF) analysis with diagnosis of CM treated with brain irradiation and multiple courses of intrathecal chemotherapy. After six months she is well still and in follow up now. She treated with intrathecal chemotherapy and she is alive yet.

**Conclusion**: According to the poor prognosis of this disease it is better that in high risk breast cancer patients like NHL high risk patients IT prophylaxis was done for these high risk because by this way, we can prevent of going patient to debilitating phase of this disease.

Key Words: Breast Cancer, Carcinomatous Meningitis, Intrathecal Chemotherapy





## The association between triple negative breast cancer with hormonal and reproductive factors

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**Background:** Breast cancer is the most common malignancy in women. Triple negative breast cancer (TNBC) (the genes for estrogen receptor, progesterone receptor and Her2neu does not express) account for around 15 to 25 percent of all breast cancer cases. This type of cancer consists of highly aggressive tumors with poor prognosis that occur in women younger than age 50. The tumors are initially very sensitive to chemotherapy but their molecular subtypes are significantly more aggressive than other types of tumors. The patients with TNBC have worse prognosis than patients with Estrogen Receptors positive (ER+) breast cancer. The aim of this study is to investigate the relationship between hormonal and reproductive factors in patients with TNBC.

**Methods:** The present study is a comparison study that was conducted at the Breast Cancer Research Center of ACECR. 160 patients with TNBC were compared with 708 ER+ patients with respect to their diagnosis age, menstrual and reproductive history, lactation and oral contraceptive use. The analysis was done by SPSS 16 and t-test and chi-square were used to analysis the results.

**Results:** The mean age of patients was  $47.64\pm11.25$ . The results showed that there was no significant difference between the two groups in terms of age at menarche, menopausal status , history of pregnancy , history of menstrual cycles and lactation status (p-value>0.05). However there was a significant difference between two variables including the age of first pregnancy (p-value: 0.014), and duration of oral contraceptive use (p-value<0.001).

**Conclusion:** Results of this study showed that there is a significant difference between triple negative group and ER+ group with respect to two variables including age of first pregnancy and duration of oral contraceptive use. It is recommended to conduct further studies to determine the exact mechanism involved in the process and to investigate also effects of other hormonal factors associated with triple negative breast cancer.

Keywords: Breast cancer, Triple negative, Reproductive factor.





## ssessing the *Psychological* effect of breast cancer on the patients' quality of life

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**Introduction:** A cancer diagnosis has tremendous consequences for most persons who experience it. In the case of breast cancer the treatment usually consists of surgery, radiotherapy, chemotherapy, and hormonal treatment. All these factors may, impact the patients quality of life. It has been shown that assessing QOL in cancer patients could contribute to improved treatment and could even be as prognostic as medical factors. This study reviews psychosocial implications in breast cancer patients and its association with QOL.

**Material and methods:** We searched the PubMed, Google Scholar, BMC journal, Cochrane library, and Uptodate databases and the keywords were breast cancer, quality of life, *Psychological distress* and treatment.

**Results**: Women with breast cancer may experience distinct psychosocial related concerns, anxiety, low emotional functioning, weight gain, physical inactivity, and unhappiness with depression. appearance, feeling less useful in life, uncertainty about the future, psychological distress related to family distress, diagnosis, treatment, and necessity for regular aftercare visits, negative feelings, social avoidance, distress about the family's future, infertility, premature menopause, diagnosis of disease, fears of death, suffering, disease recurrence, sense of aloneness, social concerns included interference with activities at home, employment, and financial burden, concerns regarding payment for the healthcare costs, impairment of body image, alteration of femininity, sexuality, attractiveness, difficulties in occupational tasks, organizing leisure time activities, and pursuing their hobbies are factors that can cause unexpected psychological distress even years after diagnosis and treatment. Psychological factors also were found to predict subsequent quality of life or even overall survival in breast cancer patients. Supportive care: interventions such as counseling, providing social support and exercise could improve quality of life. Short-term positive changes in fatigue, trait anxiety, depression, and QoL was seen following cognitive behavioral therapy for insomnia in Breast Cancer Survivours. Physical Activity had beneficial effects on health, physical strength, sexuality, relationships, and social functioning. For many survivors, pregnancy and parenthood can represent normalcy, happiness and life fulfillment.

**Conclusions:** More attention to *Psychological* factors could improve QOL in women with breast cancer.

Key words: breast cancer, quality of life, treatment, Psychological distress





## Association of Ki67 expression and CK19 detection in breast cancer patients

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## Abstract

**Background:** Cytokeratin19 (CK19) is a part of the cytoskeleton which abundantly expressed in the majority of epithelial tumor cells and is used as a tumor marker in cancer. Ki67 is a cellular proliferation marker as well as a cancer antigen that is found in growing and dividing cells. This characteristic makes Ki67 a good tumor marker.

**Methods:** In the present study, 25 patients and 25 healthy women as control were evaluated. Total RNA was extracted from blood. RT-PCR technique was applied to the extracted RNA, using specific primers. RT-PCR assay was used for detection of CK19 tumor marker and Glyceraldehyde 3-phosphate dehydrogenase (GAPDH) as an internal control.

**Results:** In this study, CK19 was detected in 32% of breast cancer patients but CK19 was not positive in the healthy controls. The CK19 gene expression in blood was assessed and compared with Ki67 gene expression; pathologic characteristic of patients. The association of the CK19 and Ki67 gene expression was statistically significant with P <sub>value</sub> =0.000.

**Conclusion:** It was shown that CK19 gene expression is potentially related to the Ki67 expression and it could be involved in the pathogenesis of breast cancer.

Key word: Ki67, RT-PCR, CK19





## Knowledge and awareness about breast cancer among Zabol medical students

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#### Abstract

Breast cancer is the top cancer in women in developed and developing countries. Social awareness about breast cancer and its symptoms is one of the main substantial factors guide to early detection. The purpose of this research is to evaluate knowledge and awareness about breast cancer among Zabol medical students. A questionnaire with "Cancer Research UK breast cancer awareness Measure" criteria was given to 148 medical students to determine their knowledge about breast cancer symptoms, age-related risk, confidence to notice a breast change, anticipated delay in presentation and frequency of breast checking. Data analyzed using SPSS22 software statistics tests. Respondents mean age was 22.01±3.43. Out of 148 respondents, 63 (43%) were male and 85 (57%) were female. Out of all, 32 (22%), 72(48%) and 44(30%) respondents were with poor, average and good knowledge and awareness about breast cancer respectively. The study points to insufficient knowledge about breast cancer among Zabol medical students. We recommend more programs targeting medical student awareness about breast cancer. We are estimating poor knowledge about breast cancer in society. Therefore we are strongly suggesting health providers to lead programs in order to increase social awareness about breast cancer to decrease its complications.

Keyword: Breast cancer, knowledge, medical students.





# Effectiveness of cognitive-therapy, stress management intervention on anxiety, depression and quality of life in women with breast cancer

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**Background**: Cancer is a wide range of diseases, whose etiology, treatment and prognosis are special. After cancer, cardiovascular disease is the second leading cause of death in human breast cancer is the most common and most lethal and the most emotional and psychological impact of cancer.

In general, breast cancer detection and treatment of emotional problems, emotional, and psychological deep in the patient's health is negatively affected.

Cognitive-behavioral .drman complex mixture of some important aspects such as behavior modification, cognitive therapy, according to the Social Cognition and facilities-individual reality.

**Materials and methods**: This review has been performed by many new articles about the role of religion in the elderly has been the site of a valid use of google scholar, cochrane library, pubmed, alternative medicin, iran medex

**Finding**: efficacy results of research conducted stress management cognitive-therapy for women with breast cancer, anxiety and depression. Improving Quality of Life effectively.

**Results:** Studies have shown that due to the fact that cancer is a problem of psycho-neuro-cognitive And psychological factors play a significant role in cancer formation And diagnosis and treatment of cancer, as well as significant psychological consequences such as anxiety, depression and stress to follow.

Keywords: Cognitive-behavioral interventions for anxiety, depression, stress, breast cancer





# Barriers to Perform BSE of the Viewpoint of Women Nurses Working in Hospitals Asadabad City of Hamadan in 2014

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## Abstract

**Background**: Breast cancer is a major health concern and a cause of deaths in women worldwide. Although BSE have a significant role in reducing morbidity and promote early diagnosis of breast cancer among women, but the percentage of women refrain from doing it. Therefore, the present study was performed to investigate the barriers to perform BSE Of the Viewpoint of women nurses working in hospitals Asadabad city of Hamadan in 2014

**Materials and Methods**: In this descriptive study, all nurses (n = 100) employed in Asadabad city hospitals were studied. The data collection tool was a valid and reliable questionnaire. To analyze the data, spss statistical software (version 16) and descriptive statistics (simple and relative frequency, mean and standard deviation) was used.

**Results**: The response rate of 74 % (74 patients). The mean age of the sample was  $29.3\pm5.67$ . 49.6% nurses were single and 70 % were less than 10 years of experience. Nearly half of the sample (47.3%) did not perform breast self-examination and 75 % (n = 55) did not go to a doctor for a breast exam annually. Some of the barriers to perform BSE include lack of awareness(8.1%), lack of time (8.1%), lack of belief to the BSE (6.8%), forget (6.8%) and fear of finding a tumor (2.7%) respectively.

**Conclusion**: According to results of the study and given a prominent role of breast self-examination in reducing morbidity and mortality from breast cancer is necessary performing person and non -person training courses in order to changing perspectives of nurses about breast self-examination. **Keywords**: breast cancer, breast self-examination, nurses, Barriers





## P2-03 Black tea and coffee consumption and breast cancer risk, new controversy

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**Background:** Breast cancer is by far the most common cancer among women globally and about 1.2 million women suffer from breast cancer in the world every year. Black tea is a commonly consumed beverage in the world, comprising approximately 80% of all tea consumed. Coffee and black teas contain a mixture of compounds that have the potential to influence breast cancer risk and survival. However, epidemiologic data on the relation between coffee and black tea consumption and breast cancer survival are sparse. The aim of this study is investigation effects of black tea and coffee on breast cancer.

**Method:** We studied recently published (2009-2014) and reviewed articles regarding Black Tea, Coffee and Breast Cancer.

**Results:** 27 studies were found. Coffee may influence risk and progression through the inhibition of DNA methylation, influences on tumor differentiation or alterations in sex hormone levels. Black tea has also been shown to alter sex hormone levels and the flavonoids it contains may have antioxidant effects. Caffeine is found in both coffee and black tea, and in rodents has been shown to increase mammary cell differentiation and decrease tumor incidence. Conversely, caffeine has also been associated with increased mammary tumors in animal models. Coffee consumption and breast cancer risk have been extensively studied with conflicting results. However, to our knowledge, only one observational study has examined coffee consumption and survival following breast cancer diagnosis and no studies have examined black tea or caffeine.

Conclusion: Our findings suggest that coffee, black tea, and caffeine consumption before breast cancer diagnosis do not influence breast cancer-specific and overall survival.

Keywords: Black Tea - Coffee - Breast Cancer.





## In-silico analysis of rs1836724 and its related microRNAs in breast cancer

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## Abstract

**Background:** Breast cancer is the most common cause of cancer death among women worldwide. Aberration in signal transduction pathway of ErbB family in human tumors is a common phenomenon. ErbB4 as an oncogene and also tumor suppressor is one of the members of ErbB family. ErbB4 overexpression has been observed in approximately 50% of breast cancer cases. miRNAs are the large subgroup of noncoding RNAs with 18-25 nucleotides inhibiting the expression of target genes by means of binding to their 3'UTR. They also can play role as an oncogene and/or tumor suppressor. In recent years, the association of some SNPs located in either miRNA seeds or 3'UTR of their target genes with the risk of breast cancer have been proved in some populations.

**Material and method:** miRNASNP database was used to identify the miRNAs with the ability to bind to the 3'UTR of ErbB4 transcripts. In next step, miRTarBase and DAVID databases were used to investigate the function and the related signaling pathways of obtained miRNAs.

**Results:** In silico investigation of SNPs in the 3'UTR of ErbB4 gene showed that rs1836724 could alter the binding properties of miR-665, miR-708 and miR-335. Due to rs1836724, the binding activity of miR-335 (as an oncomiRNA) and miR-665 (as a tumor suppressor) undergoes gain and loss respectively; consequently, this SNP could act as a poor-prognostic factor. On the other hand, the binding affinity of miR-708 (as an oncomiRNA) alleviates as a result of rs1836724; therefore, rs1836724 could also acts as good-prognostic factor.

**Conclusion:** Bioinformatically, rs1836724 could have association with breast cancer, especially with prognosis of patients.

**Keywords:** Breast Cancer, ErbB4, microRNA, Prognosis, rs1836724.





## **Breast Cancer in Pregnancy (Areview Article)**

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**Intrudaction**:Breast cancer in pregnancy is not common but it is a diffrentioal clinical situation for patient and physition.

Studies has shown that maximum diagnostic and therapetoic strategies for breast cancer in pregnancy is nessesery. The aimof this

study was assessment of diagnostic sterategy,,therapetoic methods and prognos of breast cancer in pregnancy.

Methods: Articles have chosen in pup med and English language that analysed by author.

**Results**: In some of stude is Mammography wase used for diagnos and applied Radical mastectomy or Nidle aspiration biopsy

for treatment. In any of them didn't Radio thraphy but Chemothraphy and Tamoxifen after first trimsester was common in

pregnant wemon .

**Conclusion**: Although breast cancer in pregnancy isn't common but it need to exactly study for ditection high or low risk and

staging for applay treatment methods in first pregnancy visit that due to promotion of mothers health.

Keywords:Breast cancer,Pregnancy,Diagnos,Treatment





## A pathologic study on breast biopsy in Zabol medical university of sciences hospital in 2014

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#### Abstract

Breast cancer is the most common cancer in women both in the developed and developing countries. It is estimated that worldwide over 508,000 women died in 2011 due to breast cancer Although breast cancer is thought to be a disease of the developed countries, almost 50% of breast cancer cases and 58% of deaths occur in developing countries. The purpose of this research was to study pathologic features of Patients with breast cancer in Zabol medical university hospital in 2014. In this cross-sectional study, pathologic reports of breast biopsies were collected from pathology department of Zabol medical university in 2014. Final information examined by descriptive statistics tests using SPSS22 software for analysis. The mean age of the patients at diagnosis was 37.45years (range,18-80years). Out of 20 breast biopsies obtained in 2014, 40% reported as fibroadenoma, 10% reported as gynecomastia, 10% reported as lipoma, 10% reported as invasive ductal carcinoma(ICD-O C:50.9/M:8500/3)and 5% reported as medullary carcinoma(ICD-O C:50.9 E:8510/3). The future worldwide breast cancer burden will be strongly influenced by large predicted rises in incidence throughout parts of Asia due to an increasingly "westernised" lifestyle. Efforts are underway to reduce the global disparities in survival for women with breast cancer using cost-effective interventions.

Keyword: Pathologic study, breast biopsy





## **Breast Cancer**

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Introduction

Is one of the most prevalent kind of cancer amorg women .according to statistics, from each and women ,one of them was stricken to this cancer .what is important here?reserching and delibration about it ,because by it is reason and regenerator identification, we are able to have an exact planing for it is prevention on reedy women So in this article we try to study ways of it is prevention the method of performance

We obtained this article by checking ,delibration and studing some websites and different another articles Like.to bian ,rasekhoon ,google scolar ,iron medxand etc.. Totally we studied 14diffrent articles,and results are here conclusions has specified causes which by acquaintance and introducing them ,it is possible to prevent ready women from suffering from cancer

As respects this kind of cancer is one of the most incident cancer among females and generaly its recognizable in end and rampant levels so it is important and possible for us to prevent suffering in ready woman by public training of prevention ways like ,riddle ,primery and early discretion morns of it.

We can enumerate regenerator reason from hereditary reason like family <records>and persond <records>to acquired and environment causes .like drinking alcoholic,smoking and etc.which by stoping these dangerous habitos and waening from these habits we can prevent suffering to that.

Keywords:breast.cancer.treatment





## Clinical utility of positron emission mammography for breast cancer screening

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## Abstract

**Introduction**: Breast cancer could be considered as a significant cause of morbidity and mortality in women. Conventional mammography has high sensitivity and moderate specificity in breast tumors detection. Recently, positron emission mammography (PEM) has become available for breast imaging. PEM was developed to overcome the limitations of PET in breast screening. In this study, the feasibility of utilizing the PEM method for breast cancer screening is investigated.

**Methods:** In December 2014, PubMed and science direct were searched using the exact phrases 'Positron emission mammography' and 'breast cancer screening' in title and/or abstract fields. Of the records articles, the full-text of relevant papers was selected to be reviewed.

**Result and Discussion**: In many studies a promising results were reported for breast cancer screening by PEM method. In the Berg et al study, the sensitivity and specificity of PEM was 93% and 85%, respectively, for index lesions and 90% and 86%, respectively, for index and incidental lesions. They also reported that adding PEM to conventional mammography and ultrasound yielded sensitivity and specificity of 98% and 41%, respectively.

**Conclusion:** Despite the limitations of PEM method, it could be a promising technique for breast screening in hybrid imaging or as a single imaging method.

Key Words: Breast screening; Breast cancer; Positron emission mammography.





# P2-10 Combination Therapy of siRNA and Chemotherapy in Breast Cancer

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## Abstract

Breast cancer is a worldwide leading cause of death. The treatment modalities for breast cancer are surgery, hormone therapy, radiotherapy, chemotherapy and antisense therapy (include siRNA). The poor results obtained with single siRNA delivery have encouraged the development of concomitant strategies by use single siRNA with other therapeutic agents like Doxorubicin. Association and synergy between siRNA and doxorubicin also reduce toxicity of doxorubicin because of use in combination with siRNA, that allowing the use a lower dose of doxorubicin, cause improve their therapeutic effect on breast cancer. This method could overcome potential drug resistance by combining agents with different mechanism of action. Combination therapy successfully applied in the treatment of many types of cancer specially breast cancer. In addition, it will also assess these synergistic effects on other types of cancer and in combination with other drugs.

Key words: Breast cancer, siRNA, Combination therapy, Doxorubicin





# Comparative quantification of target gene expression in Breast cancer cells byReal-time PCR method

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## Abstrct:

**Background:** The purpose of this research was to develop a quantitative real-time PCR for CK19 (Cytokeratin 19) - mRNA and evaluate its potential for the molecular detection of breast cancer cell lines.

**Methods:** The method is based on real-time PCR (Polymerase Chain Reaction) by fluorescent SYBR green. RNA was prepared from MCF7, MDA-MB-231, SKBR3 and T47D breast carcinoma cells and cervical cancer cell line (HeLa) as a negative control. This RNA was screened for mRNA of CK19 and Glyceraldehyde 3-phosphate Dehyrogenase (GAPDH) by real-time PCR and the results validated by Electrophoresis. The average  $\Delta C_t$  of CK19 and GAPDH was calculated in each cell line as well as the  $\Delta C_t$ 

of GAPDH from different cell lines. Quantitative CK19 expression was calculated using the  $\Delta\Delta C_t$  method.

**Results:** Variable degrees of expression of CK19 was detected in MCF7, T47D and SKBR3 cell lines while MDA-MB-231 cell line was not expressed CK19 by this method.

**Conclusions:** Real-time PCR technique is sensitive, accurate and reliable method which can be used for high throughput comparative quantification oftrnnor marker studies.

Keyword: Breast cancer, cell line, CK19, Real-time PCR





# Comparison of Clinicopathologcal Characteristics in Metastatic Breast Cancer Patients: At Initial Presentation and in the Follow up Time

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#### Abstract

In this cross sectional study, we tried to investigate the difference of clinicopathological characteristics of tumor between metastatic breast cancer patients at initial presentation and patients with metastatic breast carcinoma (MBC) in the follow up time.

Medical records of 290 patients with MBC at initial presentation (n=115) group I or in follow up time (n=175) group II between 1997 and 2012 were retrospectively evaluated.

The mean age of the patients at diagnosis in group I was 48.2 years and in group II was 50.6 years. Compared to de novo metastatic disease, MBC tumors in the follow up time were more likely to be grade 3 (34.4 % vs. 28.4 %), estrogen receptor (ER) positive (60.8 vs. 72.9 %), progesterone receptor (PR) positive (54.3 % vs. 66.7 %), and HER2-positive (37.6 % vs. 41.2 %), tumor size greater than 5 centimeter (T3) (31.6 % vs. 52.6 %), axillary lymph node positive ( 13.2 % vs. 35.5 %). The results indicate that there is a meaningful correlation between tumor size and positive axillary lymph node (P=0.002 & P=0.001 respectively) and the presence of metastatic breast cancer at initial presentation compare to metastases in the follow up time.

Our study showed that tumor size and axillary lymph node involvement are independent variables in metastatic breast cancer to predict the probability of metastasis at initial presentation.

Key words: breast cancer, tumor characteristics, metastases





## Comparison of cytokeratin19 expression in various human breast cancer cell lines

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## Abstract

Cytokeratin19 (CK19) is the intermediate filament protein and describes as a marker for mammary carcinoma cells. On the other hand, breast cancer cell lines are excellent experimental models for cancer research. The purpose of this study is to investigate the expression of CK19 marker in different human breast cancer cell lines by RT-PCR and Western blot analysis.

The human breast cancer cell lines MCF7, T47D, MDA-MB-231, SK-BR-3 and cervical cancer cell line (HeLa), as a negative control, were used. After extraction of RNA and proteins from cells, Extracted RNA from each cell line was analyzed for CK19 gene expression by using specific primers. Extracted proteins were analyzed by using mouse monoclonal anti-human CK19.

In this study, overexpression of CK19 was detected, respectively, in MCF7, T47D and SK-BR-3 by RT-PCR. Using Western blot technique, most of CK19 expression was detected in SK-BR-3. CK19 expression was not detected in MDA-MB-231 by the two methods.

Expression of CK19 could be different by RT-PCR and Western blot analysis in breast cancer cell lines. CK19 expression can be related to the HER-2 and ER markers. However, regarding important role of cell lines in the investigation of cancer biology, different expression of markers in breast cancer cell lines and sensitivity of the used techniques should be more considered.

Keyword: Breast Cancer, CK19, Cell Lines, RT-PCR, Western blot.





# Study of the expression of apoptotic BAX and Bcl-2 genes in breast cancer cells treated with dendrosomal nanocurcumin

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#### Abstract

An urgent need in cancer control today is to develop effective and affordable approaches to the treatment of breast cancer. In order to achieve this goal, producing drugs with high efficiency and low side effects is essential. There is no doubt that diet plays an important role in cancer prevention. Getting advantages of natural products and their therapeutic potential in nanotechnoloy is one of the prominent accomplishments of this field. Curcumin is the flavoring agent of turmeric with various therapeutic effects especially anti-tumor activity. Applying nanopartcals have improved these properties and turned dendrosomal curcumin to an effective agent in cancer treatment. Following the pervious researches we studied the apoptotic effect of this agent through evaluating the expression of BAX and BCL-2 genes in MCF-7 and T47D breast cancer cell lines. MCF-7 and T47D cell lines were cultured, cell viability was measured by MTT assay, the cells were treated with both void and dendrosomal curcumin and the expression of BAX and BCL-2 genes were measured by semi quantitative RT-PCR. Toxicity assay shows that dendrosomal curcumin significantly suppresses proliferation of MCF-7 and T47D cancerous cell lines. Also DNC affected significantly the expression of apoptotic BAX and BCL-2 genes.

Keywords: Breast cancer, dendrosomal nanocurcumin, apoptosis





Coping Strategies Used in Women with Breast Cancer

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**Background:** Women diagnosed with breast cancer may experience great emotional distress and develop a variety of psychological problems including insomnia, loss of appetite, suicidal thoughts, fear of cancer recurrence and fear of death. Using the strategies cause individual's health improvement and coping. All these concerns can create psychosocial adjustment disturbances, including anxiety, depression other affects or coping disabilities. The aim of this study was to determine coping strategies used in women with breast cancer in Shiraz.

**Methods:** In this study, 50 patients with breast cancer participated. Their adjuvant treatments had been completed. To measure coping strategies, was used Jalowiec coping strategies questionnaire. The results were analyzed by using spss.v.16.

**Results:** The mean age of participants was  $48.48 \pm 8/53$ . 92% of the participants were married, 42% educated diploma and 70% housewife. Average of problem-oriented coping strategies score was (41.68 $\pm$  10.29) and the average emotion-focused coping strategies scores was (81.56 $\pm$ 11.27).

**Conclusion:** Given that most women with breast cancer have used emotion-focused strategies. It is essential that the patient care team should pay attention to support and the necessary training related to problem-oriented strategy to women with breast cancer. Thus, it is suggested to be considered as a part of treatment program in these patients.

Keywords: Breast cancer, Coping Strategies





# Effect of hydro alcohlic extract of Citrullus colocynthis fruit on caspase 3 gene expression in MCF-7 breast cancer cell line

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## Abstract

Breast cancer is one of the most common diseases in worldwide. Clinical efficiency of chemotherapy because of side effects, toxicity and drug resistance is limited. Thus, there is interest for using plants as a promising source of anti-cancer drugs with more efficient. Citrullus colocynthis fruit has cytotoxic effects against cancer. In this study, the effect of hydro alcohlic extract of Citrullus colocynthis fruit on the expression of caspase-3, one of the factors contributing in induction of apoptosis was studied. This study was performed on MCF-7 cell line. Citrullus colocynthis fruit extract was prepared using 70% ethanol. Then cells were treated by concentrations of 200 and 400 µg/ml and harvested on 24, 48 and 72 h after treatment. The expression of caspase-3 was studied by Real-time PCR. The results showed the level of gene expression of caspase-3 increased significantly with increasing concentration and time compare to control. It seems that Citrullus colocynthis fruit extract cause death of cancer cell by induction of apoptosis.

Keywords: breast cancer, Citrullus colocynthis, caspase-3





Detection of CK19 Marker in the MCF7 and T47D Cell Lines by Immunofluorescence Microscopy

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## Abstract

**Background:** Cytokeratin19 (CK19) is a part of the cytoskeleton of epithelial cells. It is a sensitive and specific marker of epithelial cells that expressed in breast cancer cells. Immunofluorescence microscopy is a powerful technique that is widely used to assess both the localization and expression levels of proteins. On the other hand, T47D and MCF7 are two human hormone-dependent breast cancer cell lines, which are widely used as experimental models for breast cancer studies.

**Materials and methods:** breast cancer cell lines (MCF7, T47D) were cultured in RPMI 1640 containing 10% fetal bovine serum (FBS) and penicillin-streptomycin antibiotic. Then, cells were fixed with 4% paraformaldehyde and permeabilized with ice-cold 100% methanol. The cells were blocked with 1% BSA and were stained with CK19 antibody. Finally, CK19 expression was elevated by immunofluorescence microscopy.

**Results:** Immunofluorescence microscopy was used to detect the CK19 expression in T47D and MCF7 cells. The result showed that T47D and MCF7 cells were CK19-immunoreactive cells and CK19 was mainly located in the cytoplasm of these cells.

**Conclusion:** T47D and MCF7 cell lines belonged to luminal A subtype of breast cancer that CK19 expression correlated whit ER (Estrogen) marker. Expression of CK19 in the estrogen positive (ER+) breast cancer cell lines suggest that these cells have originated from luminal epithelial cells.CK19 is an epithelial marker that estrogen regulated its expression in luminal A subtype of breast cancer cell lines.

Keywords: CK19, MCF7, T47D, Luminal A





# Determining pattern of metastasis and prognostic factors in breast cancer using conditional regression model (PWP)

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#### ABSTRACT

**Introduction:** identifying the risk factors for metastasis is major concern for treatment processes of cancer patients. Metastasis makes patients frail and increase hazard of death. It also decreases physical and psychological quality of life of patients. Aim of this study is determining of prognostic factors for metastasis of breast cancer using conditional regression model.

**Materials and Methods:** in this survival study, hospital records of 246 women with breast cancer who underwent surgery and treatment at hospital Fayyazbakhsh were used. Patients were followed and their final situations recorded until 2012 May. Metastasis free survival estimated with Kaplan-Myier method. To determine the prognostic factors, a conditional regression model called PWP fitted. All statistical analysis was conducted with R software.

**Results:** 202 patients (82.1%) were alive until follow up and 44 patients (17.9%) died.54patients experience metastasis. 11 patients (4.7%) had two metastases. Most of metastases were shown in bone, liver, lung and brain. Median metastasis free survival (MFS) estimated 64 month. One, two and three year MFS were 88%, 80.1% and 76.6%, respectively. Lymph node involvement and HER2 were shown as prognostic factors for metastasis. Age, Estrogen Receptor, Progesterone Receptor, Grade and tumor size variables were not significant (P> 0.05).

**Conclusions:** number of lymph nodes involvement as a prognostic factor involve more nodes and increase risk of metastasis and death. Thus prognosis and treatment of cancer in early stages increase survival of patients.

Keywords: Breast cancer, Metastasis, Metastasis free survival, Conditional model.





## P2-19 Review on the role of EBV in breast cancer induction

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## Introduction:

Increasing rate of different cancers all over the world in spite of decreasing most known cancer inducing factors indicates that very important neglected factors are acting as etiologic cause of cancer. Many scientists and pathologists from the past century have been proposed an etiologic role of microbes in cancer induction and an infectious entity for tumors. The aim of this review was to research on the role of Epstein-Barr virus (EBV) in the breast cancer. **Methods:** 

All of the review, systematic review and other original studies of Pubmed, Cochrane library and internet based related records in the time course of 2004-2014 years were collected and studied in this research.

## **Findings:**

EBV is one of the common viral infections of humans with more than 95% of population affliction which have been proposed as a probable cause of breast cancer. Important studies have been done on the elucidation of relationships of EBV proteins (including EBNA-1, LMP-1, and EBER) and viral sequences in breast cancer cells.in laboratory studies transfection of p31 fragment of EBV DNA has immortalized epithelial cells including mammary epithelial cells.The etiologic role of virus was strongly discussed in induction of subtypes of Hodgkin's and non-Hodgkin's lymphomas (especially Burkitt's lymphoma), HIV/AIDS lymphomas, nasopharyngeal carcinoma and gastric carcinoma, primary invasive breast cancer (PIBC).

## **Discussion and Conclusion:**

Although in many of the studies the etiologic relation have not been confirmed definitly, but presence of viral gene sequence in tumor cells and poor prognosis of patients carrying viral gene or proteins in the serum have proposed a strong role for EBV as inducing breast cancer in addition of other genetic and environmental factors. Some intrinsic characteristics of EBV such as immunodeficiency induction in patients, similar to other microbes are among pivotal factors of cancer induction processes.

Key Words: Breast cancer, EBV, etiology





## Effect of hydro alcoholic extract of Nigella sativa on Caspase3 gene expression in MCF7 cell line

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## ABSTRACT

There are problems such as treatment failure, drug resistance, heavy costs and other problems related to cancer treatment, which cause the plants to attract the interest of many researchers, because they have no side effects. In this study effect of Nigella Sativa on, caspase-3 gene expression, one of genes inducing of apapotosis was studied. First Nigella sativa was extracted by 70% ethanol and concentrations of 200 and 400  $\mu$ g/ml were prepared and MCF-7 cell lines treated by extractions. Then cells harvested on 24, 48 and 72 hours after treatment. Expression of caspase-3 was evaluated by Real-time PCR .The results showed that caspase-3 gene expression in MCF-7 cells was not changed significantly by Nigella sativa extract. As the concentrations of extract used in this study had no effect on caspase-3 gene, it seems that other concentrations of Nigella sativa was effective or other genes in apoptosis pathway were affected.

Keywords: Breast cancer, Nigella sativa, Drug resistance





## Evaluation of the relationship between axillary lymph nodes involvement

### And Ki67 over expression in Breast cancer patients

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#### Abstract

**Background**: Breast cancer is the most common malignancy between women in the world and Iran. KI67 is a biological marker that is activated in cell proliferation process. In this study we wanted to evaluate of the relationship between axillary lymph nodes involvement and Ki67 over expression in Breast cancer patients

**Method**: In this study, Breast cancer patients admitted to our oncology department, during 2002-2012, were evaluated. The Ki67 correlated with age, menopausal status, histologic tumor type, disease stage, tumor size, lymph node involvement, hormon receptor (ER, PR), Her2, distant metastasis and the overall survival were studied.

**Results**: In this study of 2723 cases of female patients with breast cancer were studied, of whom data were available for KI67 in 449 of the records. Patients divided into two group as follows: High KI67 (>=14%) and Low KI67(<14%). The mean age was 49.3. The most common stag at presentation was stage II( 46.8%). In assessing lymph node involvement, 37.9% of patients were N0; 29.3% on N1, 23.1 on N2 and 9.7 on N3. In 66.2% of N0 patients, the 70.9% of N1, 61.7% of N2 and 64.7% of N3; KI67 rate was high. Although lymph node involvement is associated with KI67, and the relationship of the group N1 is the highest, but in this study there is not statistically significant relationship (P-value = 0.623) in patients with Her2 positive, patients with high KI67 is significantly more than another group( Low KI67) (PV=0.03). On survival analysis performed in patients with Ki67 less than 14% clearly have a higher survival rate compared to others. (PV = 0.02).

**Conclusion**: The results of this investigation indicate that higher value of KI67 does not accompany with the high probability of involving lymph nodes, but due to high level of this factor with decreased survival period, we conclude independently to its influence on lymph nodes involvment, this factor can play as a prognostic factor and seems determining it at the time of diagnosis, will be helpful for decision of appropriate treatment.

Keywords: Breast Cancer, lymph node involvement, KI67





## P2-22

# Comparison of IL-25 and IL-17B in Apoptosis and Proliferation induction of breast cancer cell lines

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**Introduction:** Cytokines are one of the major components of tumor microenvironment. IL-25(IL-17E) and IL-17B are two members of IL-17 family which both of them bind to a unique receptor (IL-17RB). Sincethereceptoris widelyexpressed inbreast cancertissue, so the role of these cytokines in the tumor fate can be important.

**Materials and Method:** MCF-7 (Estrogen positive) and MDA-MB231 (Estrogen negative) as breast cancer cell lines were treated by human recombinant cytokines (rhIL-25/IL-17E) and rhIL-17B from R&D system). Apoptosis test was performed using Annexin V and PI staining and analyzed by flow cytometry. Proliferation rate was evaluated by MTT proliferation assay.

**Results:** According to our results apoptosis rate in IL-25 treated cells was more than control cells and proliferation rate in IL-17B treated cells was increased. To evaluate cytokines competition, different ratios of cytokines were used. The results showed that in some ratios these cytokines had inhibitory and/or a synergistic effect on each other.

**Conclusion:** Biochemical component of the tumor microenvironment in different circumstances change and cytokines play an important role in tumor cell behavior. It seems these cytokines (IL 17E and IL-17B) competed with each other and the balance is very important on the fate of breast cancer cells.

# Key words: Breast cancer, IL-17B, IL-25, MCF-7, apoptosis





# Development of Novel Molecular Drug Candidates Using Molecular Docking Techniques in the Context of Breast Cancer

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# Abstract

The most common cancer among women in the world is breast cancer. In Iran, the incidence of breast cancer is increasingly rising and it is among the five most common cancers. Many of natural compounds have high chemo-preventive potential which could be sought to be used in drug discovery. Many studies have shown the incidence rate of cancers such as breast, colon, and prostate are decreased in communities if they would consume cruciferous vegetable. Sulforaphane is one of the isothiocyanates-derived compounds from cruciferous vegetables which bears up such characteristic. Sulforaphane is an electrophile compound which has high tendency to react with sulfhydryl. The target of this compound is sought to be residues of cysteine of many proteins which control the regulatory process of cancer in the cells. The mechanism of sulforaphane is to modify cysteine residues in Keap1 (kelch-like ECH-associated protein 1) in such way to stabilize Nrf2 (Nuclear factor (erythroid-derived 2)-like 2). This stabilization would culminate in activating antioxidant response element (ARE) of phase 2 enzymes. In this study, the structure of protein of interest, Keap1, and highly similar analogues (90%) from PDB and Pubchem websites were respectively downloaded. Then molecular simulation and calculation of docking energy (ligand-protein) by Autodock 4.2 was performed to reach sulforaphanesimilar compounds. In this way, a figurative library with around 300 molecules was generated. Finally we identified CID: 52666086, CID: 5076735 and CID: 13352380 with the lowest docking energy. The aforementioned molecules could be assumed as breast cancer drug candidates.

Key words: Cancer, Sulforaphane, Drug Design, Molecular Docking





# Molecular signaling pathway analysis of MiR-155 targetome to decipher various molecular functions of miR-155 in breast cancer with respect to prevalence of vaginal candidiasis in patients

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# Abstract

Background: Breast cancer is the most common malignancy in women. Recently, studies have shown upregulation of miR-155 in various cancers explaining its oncogenic role. This study aims to estimate miR-155 expression and its targetome analysis for deciphering the molecular functions of miR-155 in breast cancer.

<u>Material and</u> Methods: In silico analyses of miR-155 targetome in breast cancer using Unigene database was examined. DAVID database was recruited to conduct molecular pathways analyses. RT-qPCR was implemented for analysis of miR-155 expression in 40 breast cancer samples. Incidence of vaginal candidiasis was testified in these patients by means of mycology experiments.

Results: KEGG signaling pathways were revealed as the most statistically relevant pathways with miR-155 targetome such as "pathway in cancer (P-Value=2.4E-6)", "cell cycle (p-value=5.3E-2)", "apoptosis (P-Value=7.6E-2)" and "wnt signaling pathway (p-value=7.0E-2)". miR-155 can perform several tasks during first phases of tumorigenesis of breast cancer such as prevention of apoptosis/angiogenesis and induction of cell survival/proliferation. We observed miR-155 was upregulated in patients. The isolated Candida from these patients were C.glabrata, C.tropicalis and C.krusei.

Conclusion: miR-155 could exert an oncogenic function through targeting several tumor suppressor proteins expressed in breast tissues. There is a relation between incidence of breast cancer and candida infection.

Keywords: Breast cancer, miR-155, signaling pathway, candida.





# **Evaluation of Focal magnification View in the assessment of mammographic abnormalities in Breast Cancer Research Center**

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**Introduction**: Focal Compression Magnification View (FCMV) is a complementary diagnostic modality in cases of equivocal mammographic lesions .The aim of this study was to evaluate the improvement in mammographic specificity by these special views and to define the circumstances in which they were more beneficial.

**Materials and Methods**: During a cross-sectional study, all patients for whom FCMV were requested at the imaging center of Breast Cancer Research Center, were included. Clinical, Imaging and histological data were extracted of their medical papers and follow up was performed. Data were analyzed by SPSS version 20 software.

**Results**: Between March and February 2012, 5143 women were presented for mammography to this center,491 of them Conducted FCMV(9.55%). Mean age of patients was  $47.6\pm8$ . The most frequent reasons for requesting FCMV was focal density(74.6%). Radiologist recommendation after reporting FCMV were : short follow up in 55.7% ,routine follow up in 24.4%, biopsy in 9% and dependent to MRI or ultrasound in 11% of patients. FCMV led to definite diagnosis in 34.4% and all others need another imaging .FCMV led to definite diagnosis in 28.7% of focal densities in comparison to 40.5% of microcalcifications (p=0.015).

**Conclusion**: This study showed that although the most frequent indication for requesting FCMV was focal density in mammography, but this special view led to definite diagnosis in less than one third of patients. With respect to excess radiation, cost and anxiety related to additional views, FCMV should be requested in more appropriate situations such as microcalcification or mass lesions.

Keywords: Mammography, Focal Compression Magnification View, Focal Density, Microcalcification





# Green tea can be a protection factor for breast cancer

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**Background:** Green tea is one of common drinks in the worldwide. Also many of women are using of green tea for prevention of breast cancer and cardiovascular disease. Although this is a thesis but some of researchers accede this. The target of this review article is investigated effect of green tea in incidence and recurrence of breast cancer.

**Method:** This review article is with investigated of last studies with searching in PUBMED and ISI web of sciences searching motors with keywords include "Green Tea" and "Breast Cancer" between 2008 and 2014. After filtration and separation, 12 articles are selected.

**Results:** Some propose mechanisms are including:

Anti-oxidant effect: There is polyphenol compound in green tea that can have anti-oxidant effect to inhibit carcinogens and prevention of breast cancer.

**Cell grows inhibitor:** some compound in green tea can modulation of cell signaling that this effect can inhibit cell grows.

**Apoptosis adjustment:** One of component in green tea is Catechin that can induce apoptosis with redox regulation.

Regulation of potential oncogenes and tumor suppress genes in microRNA of MCF-7 in breast **cancer cells:** Last studies are shown that Polyphenols induced modification of the breast cancer microRNA expression profile. The resulting decrease in carcinogenesis is further supported by the altered microRNA of MCF-7 regulation of potential oncogenes and tumor-suppressor genes.

**Conclusion:** Cell grows unlimited and apoptosis inhibition is known mechanism in cancers. Also many of drugs and chemical therapy doing for cell grows inhibition, angiogenesis and apoptosis regulation. Green tea can replace drugs. Epidemiologic studies are shown consumption of 5 cups of green tea can have a anti-cancer effect.

**Keywords:** green tea – breast cancer





## Anti-oxidation of Green tea and breast cancer

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## Abstract

## Background

Tea is the second most consumed beverage worldwide after water. Tea is a mixture of a large number of bioactive compounds, including catechins (Epigallocatechin-3-gallate (EGCG) flavonols, lignans, and phenolic acids, which have many cancer chemo preventive attributes including anti-oxidation, anti-inflammatory, antiproliferative, and anti-angiogenic.

## Methods

This study was a comprehensive literature review performed through searches in databases such as Medline, PubMed, Science Direct, Scopus, and Google Scholar using the terms "Cancer, green tea, anti-oxidant, and breast cancer".

## Findings

Extensive laboratory studies in multiple animal models have consistently shown the inhibitory activities of green tea polyphenols against tumorigenesis at different organ sites. Green tea's estrogen reduction activity may result from tea polyphenols inhibiting aromatase, the key enzyme converting androgens to estrone or estradiol 21. Evidence from animal models provides convincing risk reduction effects of green tea against mammary tumors. Statistically significant association between green tea and breast cancer risk reduction. However, supportive evidence from prospective cohort studies is lacking.

## Conclusions

Although many in vitro and animal studies have demonstrated a protective effect of green tea against breast cancer, findings from epidemiological studies have been inconsistent.

Key words: Breast Cancer, green tea, anti- oxidation.





# Impact of Diet on Breast Cancer Risk: A Review study

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## Abstract :

**Background:** Breast cancer is the most common neoplasm and major cause of cancer-related deaths in women, worldwide. Breast cancer is caused by the interaction of genetic and environmental factors. Among the latter, since diet is a modifiable risk factor, it offers an opportunity to design preventive strategies. Regarding the increasing incidence of breast cancer worldwide, the aim of this paper was to review the studies regarding diet and breast cancer prevention. Methods: Eligible studies were identified by searching the following databases: PubMed, Google scholar, Science direct and Scopus. The search terms used are Diet Nutrition Breast Cancer Chemoprevention.

**Findings:** Initial scientific evidence suggesting that diet might play a crucial role in breast cancer development. Although the nature of the relationship between specific nutrient exposures and breast cancer risk is unclear, the optimal intake of micronutrients may lower the risk of breast cancer. Deficiencies in the consumption of such compounds could account,

for the known relationship between those diets traditionally poorest in fruits and vegetables and breast cancer incidence. These chemopreventive agents influence through modulating the expression and activity of relevant proteins, for example chemopreventive agents in fruits and vegetable exert their effects by modulating transcription factors - NF-kB, green tea by the blocking of antiapoptotic proteins such as Bcl-2 and Bcl-XL and curcumin stimulates the apoptotic intrinsic pathway via cytochrome C release from the mitochondria.

**Conclusion:** overall, the evidences indicate that diet plays a crucial role in breast cancer risk. Future research are needed to provide more clarity regarding the type, intensity, and timing of activity that relate to breast cancer risk reduction and the effects of physical activity on proposed biomarkers to breast cancer risk. Research into gene-nutrients interactions will provide more clarity regarding the involved mechanisms in breast cancer prevention, and offering an opportunity to develop effective recommendations for prevention and new treatments against breast cancer.

Key Words: Diet Nutrition Breast Cancer Chemoprevention





# In Vitro Fertilization and Cancer Risk

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## Abstract

## **BACKGROUND and OBJECTIVE:**

Long –term effects of ovarian stimulation for **In vitro fertilization** (IVF) on the risk of cancers are unkoown.

### **MATERIAL and METHOD:**

To present this review article, researcher used **In vitro fertilization** (**IVF**) and **Cancer risk** as key words and searched the google scholar, Cochrane library ,Up-to-date and Pub-med sites, and the result was 10 articles, that after study all of them carefully we selected 5 of them, and use their data in this article.

### Findings:

Studies suggest no significant relationships of IVF exposures to the risks of breast, endometrial, or ovarian cancers. Results regarding long-term effects were largely reassuring but women receiving IVF should continue to be monitored given that the procedures involve potent ovulation stimulators and repeated ovarian punctures.

#### **Discussion and Conclusions:**

Studies of high methodological quality with larger population and longer follow up are required to provide more evidences for a better understanding of the association.

Key words: In vitro fertilization and cancer risk.





# P3-08 Association of Breast Cancer and its Therapy with Candida Infection

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# Abstract

Some studies have shown evidence of Candida infection co-existing with malignancy and immunosuppressant disease due to debilitating diseases and nosocomial causes. Oncologists give patients drugs or undergoing radio or chemotherapy which make their yeast infections worse. In this retrospective study, the authors did an extensive literature review of published studies about association of breast cancer and candida infection during recent 50 years. Studies showed Candida thrives in a low oxygen environment and produce toxin and stimulate breast cancer. Some researchers demonstrated the relationship between renal candidiasis and breast cancer. Severe suppression of the immune system and inflammation in the body in breast cancer patients lead to an increased risk of Candidal infection in their cavities. Candida can cause blood sugar imbalances which are associated with cancers due to immune system suppression. On the other hand, deep tissue fungal growth in breast may be commonly diagnosed as cancer. Candida can ferment sugar and cancer cells rapidly proliferate in the presence of fermented sugar. Candida can be phagocytized by breast cancer cells. Estrogen and corticosteroid drugs reduce function of Thymic gland and promote Candidal growth. However, some studies show Tamoxifen and Sodium bicarbonate given to prevent breast cancer from returning have anti-candida properties. Some studies supported the idea that candida species associate with breast cancer; however, they have presented problems with experimental settings. More effort to assess the role of candida in carcinogenesis is needed. We propose preventing and treating candida infections may possibly stop or even eliminate certain types of cancers.

Key Words: Breast Cancer, Candida Infection, Candidiasis, Immune Deficiency.





Knowledge, attitude and practice of female students of Maragheh faculty of medical sciences on breast cancer

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Introduction: Breast cancer is one of the most frequent cancers, and it is the second leading cause of cancer deaths in women. Since knowledge, early detection and prevention of breast cancer have had important role in reducing the burden of disease, this study aimed to assess the knowledge, attitude and practice of female students at the Maragheh faculty of medical sciences on breast cancer.

Methods: This is a cross-sectional study which has been done on 300 students of the Maragheh faculty of medical sciences at 2014. Data were acquired by researcher- made standardized questionnaires.

Findings: Results of the study showed that the highest percent of participants (59.2%) were in the age group of 18-20 year old. 6.2% of students have a family history of breast cancer. 69.2% of students have an acceptable attitude of risk factors, prevention, and early detection of breast cancer. 90%, 62%, and less than 1% of the students have moderate, weak, and high knowledge on breast cancer.

Conclusion: The knowledge of students in this study was low on breast cancer, so because of importance of self-examination and early detection in prevention, it is suggested that effective instruction have been implemented in risk groups.

Key words: knowledge, attitude, behavior, breast cancer





Knowledge and women who are qualified to carry out the CBE Clinical breast Examination) in Tabriz health centers in 2014

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Introduction

Breast cancer is a disease that annually takes great sacrifices of the disease in 99.5% of women and half men ripped seen.

According to the Ministry of Health Management Center of the incidence of breast cancer among all cancers in women in the first place in the statistics of 86, 27.15% have been reported.

Materials and Methods:

This cross-sectional study using data from questionnaires completed and analysis is included in the software EXCEL.

Results:Based on these results, the average age is 28 years and 2 percent and 2 percent of teachers and 96 percent of jobs Arad was home. 16% of the subjects for the clinical assessment of breast health houses and health centers were visited by 20 percent of those in the 11 breast cancer symptoms noted in 24% to about 6% for 3, 6% to 4, 2% 5, 4, 6 and 8 percent to 10 percent, 6 percent, to 11 and% 24 h not know the symptoms.

Conclusion: The results showed that women with information about the study of the possible signs of cancer are low and need for education and awareness is required.

The design and implementation of screening programs and training courses for doctors and nurses working in the health care system and the reference system And make specific reference centers for clinical trials and symptoms of breast cancer in women over 20 years seems necessary

Keywords:

Clinical berest Examination -Breast Cancer





## Induction of Apoptosis in Human Breast Cancer MCF-7 Cell Line by Artesunate

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#### Abstract

Artesunate, a semi-synthetic derivative of artemisinin, isolated from the traditional Chinese herb Artemisia annua, is an effective novel antimalarial drug and more recently is used in medications that induce tumor cell apoptosis; however the mechanism of action is not clear yet. Thus, the aims of this study were to determine whether artesunate could induce the apoptosis of a human breast cancer cell line, MCF-7, and to clarify its related mechanism. For this purpose, MCF-7 cells were treated with artesunate and then cell viability was measured by MTT assay. Apoptosis detection with Annexin V-FITC/PI staining was followed by flow cytometry. Furthermore, Caspase-3, -8, and -9 colorimetric assay kits were employed to determine caspase protease activity. MTT assay results demonstrated that artesunate significantly inhibits the growth of MCF-7 cells in a dose- and time-dependent manner. In addition, based on the findings of Annexin V-FITC/PI staining, the cytotoxicity of artesunate in MCF-7 cells occurs through apoptosis and by increasing the cellular levels of caspase-3, -8 and -9. Taken together, it could be concluded that artesunate effectively induces apoptosis in MCF-7 cells through caspase-dependent pathways, so may be a promising candidate for the treatment of breast cancer.

Keywords: Artesunate, MCF-7 Cells, Breast Cancer, Apoptosis, Caspase





# Life style and Breast Cancer

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# Abstract

# **BACKGROUND and OBJECTIVE:**

Breast cancer is the most common female cancer worldwide . The lifetime risk of a women being diagnosed with breast cancer is approximately 12.5%. For women who carry the deleterious mutation in either of the BRCA genes. BRCA1 or BRCA2, the risk of developing breast or ovarian cancer is significantly increased.

# **MATERIAL and METHOD:**

To present this review article, researcher used **Lifestyle** and **Breast cancer** as key words and searched the google scholar, Cochrane library ,Up-to-date and Pub-med sites, and the result was 10 articles, that after study all of them carefully we selected 5 of them, and use their data in this article.

# Findings:

There is some evidence to support a protective role of a healthy body size and of regular physical activity among mutation carriers, particularly during adolescence or early adulthood. Factors which increase the physiologic expression of the normal copy of the BRCA1 or BRCA2 gene and thereby normalize protein levels , contribute to stem cell homeostasis , and/or affect hormone levels, might mitigate the effects of an inherited BRCA mutation.

## **Discussion and Conclusions:**

The prospect of changing lifestyle for the purpose of preventing breast cancer in high-risk women, complemented by mechanistic evidence, warrants evaluation in large-scale prospective studies.

# Key words: Lifestyle and Breast Cancer.





# A Quick Review of Long Noncoding RNAs:

## A new paradigm in breast cancer pathogenesis, diagnosis, and therapy

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#### Abs tract

With the development of technologies such as microarrays and RNA deep sequencing (RNAseq), long noncoding RNAs (lncRNAs) have become the focus of cancer investigations. LncRNAs, non-protein-coding RNA molecules longer than 200 nucleotides, are dysregulated in many human diseases, especially in cancers. Recent studies have demonstrated that lncRNAs play a key regulatory role in gene expression and cancer biology through diverse mechanisms, including chromosome remodeling, transcriptional and post-transcriptional modifications. The expression levels of specific lncRNAs are attributed to prognosis, metastasis, and recurrence of cancer. LncRNAs, usually act in various biological processes, such as regulation of alternative splicing of mRNA, protein activity, and epigenetic modulation or silencing the microRNAs, via discrete mechanisms. Deregulated levels of lncRNAs were shown in diverse tumors, including breast cancer. In this review article, based on mentioned findings, we aim to discuss about the potential of lncRNAs in discriminating normal and tumor tissue or even the different stages of breast cancer, which makes them clinically beneficial as possible biomarkers in the diagnosis and prognosis or therapeutic targets.

**Ke ywords :** Breast neoplasms, Biological Markers, Long noncoding RNAs, Diagnosis, Prognosis, Epigenesis





# Enhances the Effects of Chemotherapeutic Agents in Human Breast Cancer Cells with Downregulation of XIAP Expression by RNAi

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## Abstract

Breast cancer is the second leading cause of death by cancer in among women. Resistance to therapy is the most cause of treatment failure in cancer therapy. Resistance of cancer cells to cytotoxic drugs may be a result of resistance to apopotosis. XIAP (X-Linked Inhibitor of Apoptotic Protein) overexpression can be overcome cytotoxic effects of many chemotherapeutic agents in breast cancer by inhibiting apoptosis.

In this study, XIAP gene was inactivated by RNAi approach in breast cancer cells. Inactivated cells were treatmented with chemotherapeutic agents; like etoposide or doxorubicin or taxanes. Cells growth, viability and apoptosis studies were performed.

Findings shows that Reducing XIAP protein expression increases MDA-MB-231 cells susceptibility to taxenes. Down-regulation of XIAP also sensitizes MCF-7 breast cancer cells to killing by etoposide and doxorubicin. Therefore, downregulation of XIAP increases the effectiveness of chemotherapeutic agents by inducing apoptosis in breast cancer cells.

Key words: Chemotherapy; XIAP; breast cancer





# P3-15 Mediterranean Diet; Best Dietary Guideline to Fighting Breast cancer

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**Background:** Breast cancer remains a leading cause of death from cancer and a scientific challenge for the medical community. One critical issue is how to implement an effective preventive strategy. Risk factors such as genetic predisposition cannot be modified whereas other factors (unhealthy diet, sedentary lifestyle) can be avoided. The Mediterranean diet, the traditional dietary habits of people living around the Mediterranean Sea, is a well-known healthy dietary pattern. The target of this study is investigation of Mediterranean Diet and other guideline for breast cancer protection.

**Methods:** We studied recently published (1995-2014) and reviewed articles regarding Mediterranean Diet and Breast Cancer.

**Results:** 50 studies were found. Many studies suggest Olive oil is an integral ingredient of the Mediterranean diet and accumulating evidence suggests that it may have a potential role in lowering the risk of breast cancers. The mechanisms by which the cancer-preventing effects of olive oil can be performed, however, are not known. Some studies were shown evidence on the benefits of a diet rich in fruits, vegetables, legumes, oily fish and vegetable oils for preventing all breast cancer subtypes, and particularly triple-negative tumours. Also one study says use of multivitamin-multimineral supplements could be inversely associated with mammographic density and may suggest a protective effect against breast cancer, whereas high alcohol consumption was associated with increased mammographic density.

**Conclusion:** High adherence to a Mediterranean Diet is associated with a significant reduction in the risk of breast cancer and other types of cancers.

Keyword: Mediterranean Diet - Breast Cancer





## The role of Peer support on quality of life of women with breast cancer

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#### Abstract

**Introduction:** Breast cancer can be a devastating diagnosis, creating social, emotional, financial and psychological problems. Social support has been identified as an important contributor to general well - being that buffers the impact of stressful experiences, including those related to physical illness. Peer support programs are based on the premise that support from others who have been through a similar experience can help reduce the negative impacts of this disease. The present study reviews the role of peer support on QOL women with breast cancer.

**Methods:** A literature search was performed in Pubmed, Scopus and Scirus by key words "Breast cancer", "peer support", "Quality of life" without time limitation.

**Results:** Findings indicated peer-support programs have been found to improve satisfaction with medical care; personal relationships and social support, increase a sense of belonging and improve mood. One-on-one face-to-face and group Internet peer-support programs should be given priority when considering ways to offer peer support.

**Discussion:** Peer support results in promotion of quality of life in women with breast cancer. Two different theoretical models have been suggested to describe the mechanisms by which peer support may increase well-being. The mode l proposes that peer support directly affects health outcomes by decreasing feelings of isolation, encouraging health behaviors, promoting positive psychological states and providing information. The model 2 suggests that peer support buffers the impact of stress on health and improving coping responses and behaviors. Clinicians are urged to consider the study of peer support as a factor in quality of life, treatment response and survival studies and determine the best ways to offer peer support.

Key words: Breast cancer, peer support, Quality of life





# P3-17 Estrogen Receptor- $\alpha$ A $\rightarrow$ G Mutation and the Breast Cancer Risk

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## Abstract

Genetic mutations in premalignant breast lesions may have a role in malignancy progression or influence the behavior of subsequent disease. A point mutation in estrogen receptor- $\alpha$  (ER- $\alpha$ ) as A908G (Lys303 $\rightarrow$ Arg) was originally involved to hypersensitive to estrogen breast hyperplasia. We detected this mutation among Iranian women with invasive breast cancer. A population-based case-control study was conducted in 150 newly diagnosed invasive breast cancer and 147 healthy control individuals controls to screen for presence of the ER- $\alpha$  A908G mutation by using single-strand conformation polymorphism (SSCP) analysis and 33Pcycle DNA sequencing. We detected the 10.7% ER- $\alpha$  A908G mutation in the form of heterozygote genotype only among cancer patients ( $\chi$ 2=22.752, P=0.00).

The allelic frequency of mutant allele AGG in codon 303 was significantly ( $\chi 2=29.709$ , P=0.001) higher in patients with the family history of breast cancer (28.9%) than those without the family history of breast cancer (1.9%). Our data suggest that ER- $\alpha$  codon 303 mutation is correlated with various aspects of breast cancer in Iran. ER- $\alpha$  genotype might represent a surrogate marker for predicting breast cancer developing later in life.

Keywords: Breast cancer, mutation, estrogen receptor, PCR-SSCP, lymph node metastasis





# The association between pancreatic function and genetic markers of obesity in breast cancer

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## ABSTRACT

**Introduction:** Studies show that there is an association between obesity risk factors and cancer progression. The aim of this study was to investigate the association between pancreatic function and genetic markers of obesity in breast cancer.

**Methods**: In this review study pancreatic function and genetic markers of obesity have been investigated. Moreover, the role of obesity genes in the pancreas function were discussed. Also the association between these genes to breast cancer were investigated.

**Results:** Genetic factors are substantial determinants of overweight. Some of these genes that involve in obesity are FTO, MNX1 and leptin that plays an important roles in the control of food intake, energy expenditure, metabolism, and body weight. These factors also have a key role in the regulation of glucose homeostasis, even though acts central and peripheral mechanisms

to modulate glucose metabolism, the pancreatic  $\beta$ -cell of the endocrine pancreas is a critical target of these genes actions. There is a link between the fat mass and obesity associated genes and a higher incidence of breast cancer. In this paper, an association was shown between genetic marker of obesity and breast cancer.

**Conclusion:** Based on the findings, genetic marker of obesity have a significant role in pancreatic function and progression of breast cancer. Therefore, can be considered as the genes that roles in pancreatic development an attractive target for gene therapy of breast cancer.

Key words: breast cancer, obesity, genetic markers, pancreases





# Bioinformatics analysis of potential role of miR-662 in breast cancer patients: inhibition of cytokine-cytokine receptor pathway

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## Abstract:

**Background:** There are over 100 different known cancers that affect humans. Breast cancer is the most common malignancy in women worldwide.

MicroRNAs (miRNAs) are a class of small noncoding RNAs that control gene expression by targeting mRNAs. Mir-662 is a tumor-suppressor miRNA proposed as a possible biomarker of invasiveness in breast cancer. Although several studies have validated one target of miR-662(ING1 gene), however bioinformatics studies are needed to predict comprehensive molecular function of miR-662 in breast cancer.

**Objective:** Using bioinformatics databases, this study aim to expand current knowledge about molecular function of miR-662 in regard to its potential as a predicted biomarker in breast cancer.

**Methods**: Validated and predicted targets of miR-662 were regained from miRtarbase and miRwalk databases respectively. Expression of retrieved targetome in breast cancer was evaluated in UniGene database. At last breast cancer specific targetome were entered into DAVID database for molecular pathway enrichment analysis.

**Results:** According to our data from KEGG signaling pathways "<u>Cytokine-cytokine receptor</u> <u>interaction</u>", miR-662 may inhibit 11 genes such as EGFR, LTBR and KDR. Researchers have shown these genes have multiple effects on breast cancer progression.

**Conclusion:** Our data predicts that <u>cytokine-cytokine receptor interaction</u> pathway is a potential target for miR-662. MiR-662 may contribute as a tumor-suppressor molecule in breast tumor cells by inhibition of some important cytokine mRNAs.

Key words: Breast cancer, miR-662, signaling pathway, cytokine-cytokine receptor.





# Nuclear Medicine breast imaging: Current status and future directions

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### Abstract

**Introduction**: The most of breast masses are not tumorous and mastectomy is not the final breast cancer treatment. Breast cancer could be prevented and treated by early detection. Nuclear medicine methods are able to quantify molecular activity and physiological processes within the body, instead of anatomical/structural information. Therefore, these methods could detect disease in its earliest stages. In this study, the Nuclear Medicine status in breast imaging application and its future direction is investigated.

**Methods**: A computerized search using the databases PubMED and Science Direct, covering the period from 2004 to 2014, was conducted using the following key search terms: "Nuclear Medicine", "breast cancer" and "breast imaging". In total, 28 relevant papers were reviewed.

**Results and Discussion**: It was shown that the accuracy of nuclear medicine breast imaging is 40% to 60% for small breast abnormalities and is 90% for abnormalities over one centimeter. For a variety of indications, nuclear medicine approach is more sensitive than standard X-ray methods and other techniques.

**Conclusion**: Nuclear medicine is a useful method to evaluate the suspected patients with indeterminate (difficult to read) mammograms or physical exams. Scintimammography may help detect additional small breast tumors that are not often detectable by other methods.

Key words: Nuclear Medicine; Breast imaging; Breast cancer.





# Knowledge, attitudes, beliefs and practices of the Iranians about cancer: a systematic review of the previous studies

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## Abstract:

This study reviewed the literature of Iranians' Knowledge, Attitude, Belief and Practice (KABP) about cancer. 61 studies which have published from 2000 to 2014, are retrieved from Iranians' scientific databases (Magiran, SID and Medlib) and have been analyzed. Most of these studies were conducted on women (82%), especially those who referred to the healthcare centers (31.1 %), and mainly on breast cancer (n = 40, 65.6 %), in particular, on its screening tests (41%). Cervical cancer and other type of cancers studied 16.4 % (n = 10) and 18 % (n = 11) of the total volume respectively. These studies were conducted on the staffs and students of medical sciences sector (26.2 %), teachers, students and employees of other sectors (18%) and other community groups (24.6 %). The authors have mentioned the relationships between the level of education, family history of cancer, history of previous education, marital status with KAP of cancer; They have reported low level of knowledge (48.8% low, 32.6% medium, 18.6% high), high level of attitude (27.6% low, 34.5% medium, 37.9% high) and low level of practice (73.7% low, 21.1% medium, 5.3% high) among Iranians about cancer. In any cancer control program, this lack of knowledge and practice should be considered along with providing facilities for prevention and screening. Doing several comprehensive studies with broader sample volume are suggested wherein the factor of beliefs, which not only depends on knowledge and attitudes but also influenced by cultural, religious, traditional, and even superstitious issues, should be considered.

Keywords: Knowledge, Attitude, Belief, Practice, Cancer, Iranians





Performance and attitude towards breast cancer in women over 18 years in the city of Shiraz, 1392

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# Abstract

Background: Breast cancer is the most common cancer among women Prevention and screening programs to reduce morbidity and mortality is the main component for breast cancer. The purpose of this study was to determine the knowledge and practice of women over the age of 18 than breast cancer screening programs.

**Materials and Methods**: This cross-sectional, descriptive-analytical study was conducted descriptive study was carried out on 300 urban women over 18 years, in 2014. The instrument was standardized questionnaire interview and Random sampling was done

**Results**: 56% of women Breast Cancer knew and 41 % of women believed they knew the importance of BSE for early detection of breast cancer. Test results showed, education level, age, family income level, with increase women's knowledge and performance in the field, was associated.

**Conclusion**: Education and awareness about different methods of breast cancer screening, for promote knowledge and good practice, it seems necessary. Increased participation in breast cancer screening programs is essential.

Key words: breast cancer awareness, performance.





# Quality of life in women with breast cancer

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Purpose: Although mortality rates from breast cancer are declining, many breast cancer patients will experience physical and psychological sequelae that affect their everyday lives. The purpose of this paper is to report the results of a descriptive study that evaluated the quality of life in this patients.

Methods: During October-December 2014, A total of 148 women referred to the Cancer Institute; Imam Khomeini Medical Center with breast cancer participated in a cross-sectional study. The subjects received EORTC QLQ-C30 instruments and a demographic questionnaire. All data was analyzed using SPSS 16 software.

**Result:** The mean age was 47.62 years (SD=1.01). The most participant were married(%76.4) and had a basic level of education. The total mean score for quality of life was 43.86±2.35 (range; 0 to 100). More severe limitations were observed for the emotional and social functioning scales and for the symptom subscales of fatigue and insomnia. The highest mean was for the cognitive functioning scale.

Conclusions: Deficits in emotional and social functioning and specific limitations like fatigue and insomnia and financial difficulties are main factors hampering the QOL among braest cancer patients and seem to affect predominantly younger patients.

Keywords: breast cancer, quality of life, EORTC QLQ-C30





# **Results of Breast Cancer Screening tests in Behbood Hospital in Tabriz**

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## Abstract

Attention to Breast Cancer prevalence age and attention to breast Cancer is 1/3 of all Cancers, we decided to assay results of screening tests of Breast Cancer in Behbood hospital. For 5000 women of clients completed questioner of demographic - Social characteristics and risk factors of BC. Then breast s of women was examined by physicians and midwives. If there

Were abnormal results, Ultra Sonography or Mammography & FNA were ordered. 516 case of left Breast mass and 480 case of right breast mass were touched. 759 cases were abnormal in CBE. 40 cases of Sonography were abnormal. 183 cases of Mammography were abnormal. One case of FNA was Cancer (7.1 %).Occupation, Menopause status, history of doing FNA,

Education, Marriage, Age of first pregnancy, and BMI had significant relationship with abnormal CBE. Number of Breastfeeding had significant relationship with abnormal Sonography. Menopause status, dietary, use of chemical agents,

And mode of use Lipids had significant relationship with abnormal Mammography (p<0.05). Attention to these risk factors, Women should be implementing of Breast Cancer Screening tests more and disciplinary, and their Knowledge about Breast Cancer & benefits of screening were increase by public IT and correct life style.

Key Words: Breast Cancer, Screening tests





Comparison and Evaluation of Synthesis of Risk Factors in Breast Cancer and Provide a Model for Determine the Likelihood of Developing Breast Cancer Using by EM Algorithm in Data Mining Techniques

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## Abstract:

Breast Cancer is the second most common cancer among women and is the second largest cause of death in the world. Early detection can be very effective and can play an important role for treatment. Annually, approximately more than 1,700,000 women worldwide are detected to have this disease. There is an increase of around 2% in the breast cancer incidence rate yearly. There are several risk factors for Breast Cancer. Some of them have been proven, some are still having controversial reported results and some are almost rejected. Sometimes maternal age at first birth, age at marriage and number of children are considered as risk factors. However they sometimes are taken as protective measures. In this paper, we proposed a model which can predict the Percentage of Suffering for a person having breast cancer. Some of risk factors are modeled and some impact factors are chosen for them. In this study, the proposed algorithm is implemented and evaluated using data from Breast Cancer Surveillance Consortium (BCSC) in National Cancer Institute.

Key Words: Breast Cancer, Risk Factor, Data Mining, Screening, EM Algorithm





# In-silico analysis of hsa-mir-196a targetome pathway and its SNP function in patients with breast cancer: potential association between T allele and the risk of metastasis

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## Abstract:

**Background:** Prostate cancer and breast cancer are the most common neoplasia in men and women respectively. Three main treatments including surgery, chemotherapy and radiation therapy are used to treat cancer patients. However, the future of cancer treatment lies in genetic treatment options providing with a personalized medicine which will consider specific treatment individually. Nowadays treatment options based on the genetic variations occurring in specific individuals are being offered. SNPs are the most important biomarker for personalized medicine.

Micro RNA regulates gene expression at the post-transcriptional level and involves in diverse biological and pathological processes including angiogenesis pathways. The miR-196a has been experimented in lung, esophageal, gastric and breast cancers.

**Objective**: The aim of our study is to expand current knowledge about molecular function of miR-196a and its SNP in breast cancer cells by using bioinformatics tools.

**Methods:** Validated and predicted targets of miR-196a were obtained from MiRtarbase and MiRwalk databases respectively. UniGene and DAVID databases were used for further analysis. MIRSNP database predicts single nucleotide polymorphism in miR-196a and its function.

**Results:** It is predicted that miR-196a acts as a critical tumor suppressor micro RNA by inhibiting some important genes in sustained angiogenesis pathway such as FGFR, STAT3, ERK, ITGA and I $\kappa$ B $\alpha$ . Moreover, the stability of stem loop structure of pre-mir-196a is decreased by T allele due to increasing gibbs free energy of the structure. As a result, there is a probable association between T allele carriers and poor prognostic breast cancer. In other words, T allele may contribute to intensify tumor growth and metastasis due to angiogenesis pathway alteration.

**Conclusion:** According to our data, miR-196a and its SNP may be involved in breast cancer prognosis by altering regulation of angiogenesis and some vital signaling pathways mRNAs. To sum up, T allele in this location can have prognostic value for angiogenesis and metastasis phenotypes in patients with breast carcinoma.

Key words: Breast cancer, miR-196a, SNP, agiogenesis, metastasis.





## Screening and early detection of breast cancer

### Soheila fathalizadeh, mahnaz chahipour

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### Introduction:

Breast cancer is the most common cancer among women, and every8to10women, someone is suffering

On the basis of data from each of10to15women, there's someone chanc.age of onset in at least a decade younger than developed countries

### Materials and Methods:

Paper is intended as an overview of the application of Article27taken from theSIDsite is provided.

### **Results:**

- <sup>1-</sup> results of Tabriz University:Only18% of women with breast self-examination,19% clinical breast exam, and3% of mammograms performed.
- 2- results of Ardebil university:Breast self-examination of 4% -of clinical examination5% and mammography was4%.
- 3- results of88years of Kerman University of Medical Sciences:More awareness of the importance of participation in screening and early detection of cancer and the most common cause of non-participation would not recommend a doctor.

#### Discussion:

- <sup>1-</sup> The emphasis should be on training and facilitated the diagnosis and treatment of breast cancer patients to optimize
- 2- Early detection of cancerous tumors is associated with better prognosis in breast cancer .therefore it is the duty of every physician to possible breast abnormalities detected at an early stage and Diagnostic perform certain actions

# **Keywords:**

Cancer, breast, screening





# Sexual functioning after mastectomy surgery- A qualitative study

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## Abstract

**Background:** In many culture, breasts is a symbols of femininity, motherhood, beauty and sexual attractiveness that loss and deformity it's may lead to adversely affect the sexual life. The objective of present study was to understanding sexual functioning after mastectomy surgery in breast cancer survivor. Material &method: This study was a qualitative design. Semi- structured interview conducted with 11 Iranian women surviving breast cancer (mean age 44/5 years; mean age of husbands 47/8 years; median length between surgery and interview 2/8 years). Result: Analysis using the Colaizzi method revealed four major themes: (1) dyspareunia, (2) hesitation in resuming sex after mastectomy surgery, (3) decrease the frequency and quality of sex, and (4) sexual considerateness. Conclusion: This study shows the changes to sexual functioning following mastectomy surgery. In addition, understanding and cognition about sexual life among breast cancer survivor will help improve survivor's sexual wellbeing. The finding this study helps to mental healthcare professionals to design appropriate interventions to improve survivor's sexual life.

Key words: breast cancer, sexual functioning, mastectomy, Iran





# Bioinformatics analysis of functional SNP ( $A \rightarrow G$ ) at miR-499 in patients with breast cancer: G allele is probable poor prognostic factor

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Abstract:

**Background**: MicroRNAs (miRNAs) are endogenous small non-coding RNAs. In animals, miRNAs were found to hybridize to 3' untranslated regions (3'UTRs) and mediate mRNA cleavage or translational inhibition. These kinds of RNAs are important class of regulators that were reported to be involved in a wide range of biological processes such as cell signaling and cancers. Genetic polymorphisms, especially single nucleotide polymorphisms (SNPs) can affect miRNA regulation via different molecular mechanisms and associated with various phenotypic differences. First, polymorphisms within precursor miRNAs (pre-miRNAs) were found to affect miRNA expression possibly via altering pre-miRNA processing. Second, polymorphisms in miRNA target sites had been extensively studied and implicated in a variety of human diseases. There are over 100 different types of cancer, and each is classified by the type of cell that is initially affected. Breast cancer is a type of cancer which malignant cells form in the tissues of the breast. According to the World Health Organization, breast cancer is the most common diagnosed cancer in women.

**Objective:** the aim of our study is to expand current knowledge about molecular function of miR-499 and its SNP as a potential biomarker in breast tumor cells by using bioinformatics tools.

**Material and methods:** dbSNP in NCBI, miRNASNP, UniGene, KEGG and DAVID databases were used for bioinformatics analysis. Validated and predicted targets of miR-146a were obtained from miRtarbase and miRwalk databases. Patterns of targetome genes expression in breast tumor and normal mammary glands were investigated by Unigene database. DAVID database was used for miR-146a enrichment analysis.

**Results and conclusion:** Our data manifested KEGG signaling pathways "pathway in cancer" as the most statistical relevant pathway with miR-146a targetome. miR-499 in breast tumor cells may target angiogenesis related mRNAs such as KITLG, FGF, PDGFR, SOS, STAT3, IKK and iNDS. Stability reduction of stem-loop structure of mir-499 due to G allele gains angiogenesis pathway. As a result allele G may associate with poor prognosis of breast cancer. To sum up, miR-499 is a potential tumor suppressor miRNA which could be used as a worthwhile prognostic biomarker. Allele G in the SNP could have prognostic value for breast cancer centers due to its effect on mir-146a stability. The exact role of mir-499 and the SNP needs further investigation.

Key words: Breast cancer, miR-499, SNP, signaling pathway.





# Silibinin Causes Upregulation of PTEN as One of the Cell Cycle Progression Blocker in MCF-7 Human Breast Cancer Cell Line

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## Abstract:

Introduction: Silibinin, a natural flavonoid, has many anticancer effects including growth inhibition, cell cycle arrest, antiprolifrative effect and apoptosis induction while is well tolerated and largely free of any adverse effects. Methods: In the present study, we studied some of silibinin effects on MCF-7 cells. Cell viability was analyzed by MTT in silibinin treated cells. We investigated effect of silibinin on PTEN (phosphatase and tensin homolog) mRNA expression by Real-Time RT-PCR (Reverse transcription polymerase chain reaction) technique and cell cycle distribution by flow cytometry. Results: Findings of this study showed that silibinin induced dose-dependent cell death in MCF-7 cells. Silibinin induced PTEN overexpression and G1 cell cycle arrest. Discussion: These results suggest that PTEN overexpression has a role in anticancer mechanisms of silibinin in MCF-7 cells because of capacity of PTEN to evoke increases in the expression of the p27/Kip1, cyclin dependent kinase inhibitor via its lipid phosphatase and decreases in cyclin D via its protein phosphatase that predisposes cell cycle arrest and also PTEN leads to Bad activation that predisposes apoptotic cell death. Conclusion: Cell cycle arrest is one of the anti-cancer mechanisms of silibinin in MCF-7 cells that is mediated by modulation of some genes including PTEN.

Keywords: Silibinin, Cell Cycle, PTEN





### P4-10 r-aided detection of breast cancer on mammo

# Review of Computer-aided detection of breast cancer on mammograms

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## Abstract:

Breast cancer is the most common form of cancer among women worldwide. Early detection of breast cancer can increase treatment options and patients' survivability. Recently, computer-aided detection (CAD) systems have been developed to use by less experienced radiologist and to reduce the number of false-negative interpretation caused by radiologist distraction and complex architecture. Numbers of Recent researches and FDA-approved commercially CAD system were evaluated. This review is based on breast density, lesions and their stage using image processing, pattern recognition, and artificial intelligence techniques based on the knowledge from too many mammograms which are had been interpreted.

Early detecting Breast cancer in single reading with CAD has better performance compared with double reading, although false positive mark increased in dense breast that has a lower false than interpretation without CAD. By assessment of different CAD techniques, other modalities like ultrasound imaging are suggested to achieve additional information. One solution to improve CAD systems is the development of interactive CAD systems that can process only regions of interest. With using more database and large number of data we can improve these CAD systems and helps the radiologist in detecting the abnormalities in an efficient way in early detecting Breast cancer.

Key Words: Breast Cancer, Computer aided systems (CAD)





### An Overview of Breast Cancer Prediction in Early Stage with Analyses of Mammographic

### Images Using by Data mining Techniques and provide a Novel Solution in Screening

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#### Abstract:

Breast cancer is the second leading cause of cancer death in women. Breast cancer prevention and early detection can be very effective and saves lives. At present, Mammography is described as the gold standard of breast cancer screening. Due to the types of breast tissues and using X-ray with low density, the images have a low contrast. It takes 6 to 8 years from the time of first proliferation cells to the physician diagnosis in breast cancer development. Consequently, the survivability can be increased to 85% by early detection. Hence diagnosis of the disease in early stages is very important. In this study, we try to Have an overview on the latest articles and papers about diagnosis of breast cancer in early stages using data mining techniques and propose a novel model for screening using mammographic Images.

Key Words: Breast Cancer, Prediction, Data Mining, Mammographic





# Investigation of the time and the site of metastases in patients with triple negative breast cancer and other phenotypes

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**Introduction:** triple negative breast cancer (TNBC) refers to any breast cancer that does not express the genes for estrogen receptor, progesterone receptor and Her2/neu. The purpose of this study was to compare disease-free survival, prognostic factors and site of metastases in patients with triple negative breast cancer and other phenotypes.

**Materials and methods**: All the patients who were referred to the Breast Cancer Research Center between 1376 and 1392, were involved in this cross-sectional study.

The patients who were negative for estrogen receptor, progesterone receptor and Her2neu were categorized in TNBC group and the patients with at least one positive receptor were categorized in other phenotypes group. Disease-free survival, prognostic factors and incidence of metastases (bone or non-bone) were compared in women with TNBC and other phenotypes. Data were analyzed by SPSS 21 statistical software with using descriptive and analytical statistics (Cox regression).

**Results:** Out of 772 patients with breast cancer, 120 patients (15.5%) had TNBC. The mean age of patients with TNBC was  $46.3\pm10.73$  and that in patients with other phenotypes was and  $47.6\pm11.18$ . The median of follow-up time was 18.1 months. In this study disease-free survival of all patients was 0.87; also disease-free survival in TNBC and other phenotypes groups was 0.88. In the group of patients with other phenotypes, the tumor size (p=0.01), number of involved lymph nodes (p=0.0001) and age (p=0.003) were effective in disease-free survival, but none of these variables were effective in the TNBC group (p>0.05). There was no significant difference between the two groups in terms of metastases (bone and non-bone)(p>0.05).

**Conclusion:** Although previous studies pointed out that the overall survival of TNBC patients is lower, but the results of this study showed that there is no significant difference between patients with TNBC and patients with other phenotypes in terms of the time of metastases and its site. One of the reasons for this could be using different types of treatment especially elimination of hormone therapy and target therapy.

Key words: triple negative breast cancer, metastases, survival





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# Abstract

The sentinel lymph node biopsy (SLNB) was initially pioneered for staging melanoma in 1994 and it has been subsequently validated by several trials, and has become the new standard of care for patients with clinically node negative invasive breast cancer. The fo- cussed examination of fewer lymph nodes in addition to improvements in histopathological and molecular analysis has increased the rate at which micrometas- tases and isolated tumour cells are identified. In this article we review the literature regarding the optimal management of the axilla when the SLNB is positive for metastatic disease based on level 1 evidence derived from randomised clinical trials.

Key words: Sentinel lymph node biopsy; Early breast cancer; Axillary radiotherapy; Axillary dissection; Evi- dencebased medicine





# P5-11

## Eligible patients for intraoperative radiotherapy (IORT) of early breast cancer: A cohort analysis

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Abstract

Background: Since the results from the randomized TARGIT A trial were published, intraoperative radiotherapy (IORT) is used more often. IORT can be provided as accelerated partial breast irradiation (APBI) or as a boost. The definition of suitable patients for IORT as APBI differs between different national societies (e.g. ESTRO and ASTRO) and different inclusion criteria of trials and so does the eligibility of patients. This analysis identifies eligible patients for IORT according to available consensus statements and inclusion criteria of the ongoing TARGIT trials.

Methods: Between 01/03 - 12/09, 1505 breast cancer cases were treated at the breast cancer center at the University Medical Center Mannheim. Complete data sets for age, stage (T, N, and M), histology and hormone receptor status were available in 1108 cases. Parameters to identify eligible patients are as follows: ESTRO: >50 years, invasive ductal carcinoma/other favorable histology (IDC), T1-2 ( $\leq$ 3 cm), N0, any hormone receptor status, M0; ASTRO:  $\geq$ 60 years, IDC, T1, N0, positive estrogen hormone receptor status, M0; TARGIT E "elderly", risk adapted radiotherapy with IORT followed by external beam radiotherapy in case of risk factors in final histopathology, phase II:  $\geq$ 70 years, IDC, T1, N0, any hormone receptor status, M0; TARGIT C "consolidation", risk adapted radiotherapy,

phase IV:  $\geq$ 50 years, IDC, T1, N0, positive hormone receptor status, M0; TARGIT BQR "boost quality registry": every age, every histology, T1-2 (max. 3.5 cm), any hormone receptor status, N0/+, M0/+.

Results: Out of the 1108 cases, 379 cases (34.2%) were suitable for IORT as APBI regarding the ESTRO and 175 (15.8%) regarding the ASTRO consensus statements. 82 (7.4%) patients were eligible for the TARGIT E trial, 258 (23.3%) for the TARGIT C trial and 671 (60.6%) for the TARGIT BQR registry. According to the consensus statements of ASTRO (45.1%) and ESTRO (41.4%) about half of the eligible patients were treated with IORT as APBI. From the eligible patients fulfilling the criteria for IORT boost (35%) about one third was eventually treated.

Conclusions: Patient selection for IORT should be restrictive. For IORT as APBI the TARGIT trials are even more restrictive including patients than the ESTRO and ASTRO consensus statements.

Keywords: Intraoperative radiotherapy, IORT, Breast cancer, APBI, Boost, Eligibility, Suitable patients





#### Adjuvant radiotherapy of regional lymph nodes in breast cancer - a meta-analysis of randomized trials

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Abstract

Background: Radiotherapy (RT) improves overall survival (OS) of breast cancer patients after breast conserving surgery and after mastectomy in patients with involved lymph nodes (LN). The contribution of RT to the regional LN to this survival benefit was poorly understood. Recently, the results of three large randomized trials addressing this question have become available.

Material and methods: The published abstracts (full publication pending) of the MA.20 (n=1832) and the EORTC

22922–10925 (EORTC) (n=4004) trial and the full publication of the French trial (n=1334) were basis of the meta-analysis. Main eligibility criteria were positive axillary LN (all trials), LN negative disease with high risk for recurrence (MA.20), and medial/central tumor location (French, EORTC). The MA.20 and the EORTC trial tested the effect of additional regional

RT to the internal mammary (IM) LN and medial supraclavicular (MS) LN, whereas in the French trial all patients received RT to the MS-LN and solely RT to the IM-LN was randomized. Primary endpoint was OS. Secondary endpoints were disease-free survival (DFS) and distant metastasis free survival (DMFS).

Results: Regional RT of the MS-LN and the IM-LN (MA.20 and EORTC) resulted in a significant improvement of OS (Hazard Ratio (HR) 0.85 (95% CL 0.75 - 0.96)). Adding the results of the French trial and using the random effects model to respect the different design of the French trial, the effect on OS of regional radiotherapy was still significant (HR 0.88 (95% CL 0.80 - 0.97)). The absolute benefits in OS were 1.6% in the MA.20 trial at 5 years, 1.6% in the EORTC trial at 10 years, and 3.3% in the French trial at 10 years (not significant in single trials). Regional radiotherapy of the MS-LN and the IM-LN (MA.20 and EORTC) was associated with a significant improvement of DFS (HR 0.85 (95% CL 0.77 - 0.94)) and DMFS (HR 0.82 (95% CL 0.73 - 0.92)). The effect sizes were not significantly different between trials for any end point.





Conclusion: Additional regional radiotherapy to the internal mammary and medial supraclavicular lymph nodes statistically significantly improves DFS, DMFS, and overall survival in stage I-III breast cancer.

Keywords: Meta-analysis, Breast cancer, Radiotherapy, Lymph node, Internal mammary, Medial supraclavicular





#### **Radiation Therapy for Locally Recurrent Breast Cancer**

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Approximately one-third of all breast cancer patients experience local recurrence of their tumor after initial treatment. As initial treatment often employs the use of radiation therapy (RT), the standard of care for local breast cancer recurrence after initial breast conserving therapy has traditionally been surgical intervention with mastectomy. However, recent attempts to preserve the intact breast after recurrence with local excision have revealed a potential need for RT in addition to repeat breast conserving surgery as rates of local failure with resection alone remain high. Additionally, local recurrence following initial mastectomy and chest wall RT can be treated with reirradiation to increase local control. Repeating RT, however, in a previously irradiated area,

is a complex treatment strategy, as the clinician must carefully balance maximizing treatment effectiveness while minimizing

- treatment-related toxicity. As a result, physicians have been hesitant to treat recurrent disease with repeat RT with limited data.
- Results from the current literature are promising and current clinical trials are underway to explore reirradiation modalities which
- will provide additional information on treatment-related toxicity and outcomes. This paper will review the current literature on

repeat radiation therapy for locally recurrent breast cancer





# The role of Axillary Dissection for Breast Cancer in Old women; A Meta-analysis of Randomized Clinical Trials

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Abstract

**Background:** We performed this meta-analysis to assess the effectiveness and safety of axillary dissection in old women. Methods: The Cochrane Library, PubMed, EMBASE and Chinese Biomedical Literature Database were searched and all randomized controlled trials of axillary dissection in old women (at least 60 years old) were considered. Meta-analyses were completed using RevMan5.1. Results: Three eligible randomized controlled trials (RCTs) including 5,337 patients were considered. There was weak evidence in favour of axillary dissection (AD) in old women. The meta-analysis showed that the overall survival (OS) after 1, 3, 5 and 7 years and the disease free survival (DFS) after 1, 3 and 5 year were not statistically significantly different between AD and no AD groups. However, there was a difference in the 7 year DFS. Conclusions: Axillary dissection is not well-indicated in old women with breast cancer.

**Keywords:** Breast cancer - old women - axillary dissection - meta-analysis - randomized controlled trials





# Vitamin D and Breast Cancer, Is there any association?

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**Background:** Vitamin D is one of the fat solution vitamins that play important roles in immunity system adjusted, genes expression and antioxidant function. Breast cancer is one of the common cancer in women population that has much mortality and debility in every year. Vitamin D deficiency is very common in human and the last study of clinical nutrition show that more of disease is relationship between vitamin D deficiency and incidence of chronic disease. In this article we review last of clinical trial study to investigated between vitamin D and breast cancer.

**Method:** This review article is with search in PUBMED motor with keyword "vitamin D", "25 hydroxy vitamin D" and "Breast Cancer" between 2008-2014. In this search only articles that were "Clinical Trial, were selected and investigated 12 article for this review.

#### **Result: Results of this article are included:**

#### Vitamin D and immunity system:

Function of vitamin D in immunity system and adjusted of immune cell is known and clear. Effect of vitamin D in prevention of cancers, autoimmunity disease and allergy is with adjusted of immune system. In 3 studies protective effect of vitamin D after treatment of breast cancer with improvement of immunity system were shown.

Vitamin D and adjusted of gene expression of hormone receptor:

Some of study had shown that vitamin D can play an important role in gene expression and hormone receptor; also the control of estrogen receptor was one of function of vitamin D that studies were suggested vitamin D supplement in treatment of breast cancer.

Vitamin D receptor polymorphism in patient with breast cancer:

One of common status of vitamin D in women with breast cancer is polymorphism of vitamin D receptor (VDR) that had observed in some of studies.

#### **Discussion and Conclusion:**

Vitamin D deficiency is very common in human population that was made elevate of chronic disease incidence. Autoimmune disease, allergy and cancer are chronic disease that immune system is involved. Last observation has shown that vitamin D play an important role in control of estrogen receptor gene expression and insufficient intake of vitamin D or vitamin D receptor polymorphism are common in patients with breast cancer that suggested intake of vitamin D food source or supplements for prevention of breast cancer.

Keyword: vitamin D, 25 hydroxy vitamin D, Breast Cancer





# P4-14 Vitamin D Receptor (VDR) gene polymorphism is a risk for breast cancer

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**Background:** Breast cancer is by far the most common cancer among women globally. Epidemiological evidence suggests that vitamin D from sunlight and diet may be inversely associated with breast cancer incidence. 1,25(OH)2D3, the physiologically active metabolite of vitamin D, exerts growth regulatory functions by binding to the VDR. 1,25(OH)2D has antiproliferative effects on and promotes the differentiation of breast cancer cells. In MCF-7 cells, vitamin D and vitamin D analogs have been shown to induce cell cycle arrest and apoptosis, to downregulate estrogen receptor expression, to limit responsiveness to the mitogenic effects of 17beta-estradiol, and to limit induction of the progesterone receptor.Epidemiologic evidence bearing on the relationship between vitamin D and breast cancer risk has come from several sources: ecologic studies, studies of vitamin D in relation to breast density, studies of VDR polymorphisms and breast cancer risk. The target of this study is investigation risk and incidence of VDR polymorphism in patients with breast cancer.

Method: We studied recently published (2008-2014) and reviewed articles regarding Vitamin D Receptor and breast cancer.

**Results:** More reviewed studies says that There is association between vitamin D receptor polymorphism and breast cancer. Also, some studies suggest that specific alleles of the VDR gene located near the 3' region may identify an increased risk for breast cancer and justify further investigation of the role of VDR in breast cancer. One study suggest that breast cancer risk may be associated with specific vitamin D-related polymorphisms, particularly CYP24A1. Genetic variation in the vitamin D pathway should be considered when designing potential intervention strategies with vitamin D supplementation. Some studies suggested that there were no associations between VDR BsmI polymorphism andbreast cancer.

Conclusion: Vitamin D deficiency results of VDR genes polymorphism can be risk factor for breast cancer incidence.

**Keyword:** Vitamin D Receptor– Breast Cancer





#### Walnut and Breast Cancer

Zare ommolbanin

MCS of Midwifery, Department of Nursing and Midwifery, Faculty of Sciences, University of Islamic Azad Babol branch.(mahyazare@yahoo.com) Abstract

# **BACKGROUND and OBJECTIVE:**

Walnuts contain bioactive molecules that may contribute to their beneficial effects, including alphalinolenic acid and phytosterols.

#### **MATERIAL and METHOD:**

To present this review article, researcher used **Walnut** and **breast cancer** as key words and searched the google scholar, Cochrane library ,Up-to-date and Pub-med sites, and the result was 15 articles, that after study all of them carefully we selected 5 of them, and use their data in this article.

#### Findings:

Several studies suggest that regular consumption of nuts, mostly walnuts, may have beneficial effects against oxidative stress mediated diseases such as cardiovascular disease and cancer. Walnuts contain several phenolic compounds which are thought to contribute to their biological properties.

#### **Discussion and Conclusions:**

The results obtained herein strongly indicate that walnut tree constitute an excellent source of effective natural antioxidants and chemopreventive agents.

#### Key words: Walnut and Breast Cancer.





New methods of treatment for breast cancer

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#### Abstract

**Background:** Revolutionary in the strategy of diagnosis and treatment of breast cancer in the last 30 years, Significantly is contribute to increase the accuracy of diagnosis and quality of care . The aim of this study was to review recent studies conducted in the new treatments of breast cancer.

**Materials andMethods:** The science direct google scholar SID databases were searched. Finally, 31 article were available was examined for review in the present study.

**Findings :** According to the results, the mammography is a best diagnostic method for breast cancer screening . Needle biopsy thick With the eliminate many of the problems diagnostic FNA, There are many benefits for patients. miRNAs as regulators of gene expression, one of the candidates for new diagnostic and prognostic markers and therapeutic targets are. With the development of laser applications in medicine, can be leads to a damaged tissue temperature higher than normal. Chance of destroying cancer cells at a temperature greater than 42.5  $^{\circ}$  C is very high.

**Conclusion:** Based on the results and findings obtained, the new treatment in different ways,Effective to improve the quality of life, improve health and reduce morbidity and mortality, and Creation the pleasant experience for breast cancer patients,Is effective in the treatment of breast cancer

Keywords: new treatments, breast cancer





#### P6-16

مراقبت پرستاری در منزل برای زنان جوان مبتلا به سرطان پستان به عنوان استراتژی موثر پرستاری در افزایش کیفیت زندگی بیمار و خانواده

فاطمه سمیعی سیبنی، مرضیه خاتونی، زینب علیمرادی ، فرنوش معافی غفاری

مقدمه: بروز سرطان پستان منجر به کاهش کیفیت زندگی زنان و خانواده آنها می شود و از آنجایی که کیفیت مراقبت از زنان جوان می تواند تاثیر ویژه ای در کیفیت زندگی بیمار و خانواده داشته باشد، پرستاران با بکار گیری استراتژیهای خانواده محور، می توانند از طریق ایجاد موقعیت مناسب برای بیمار و خانواده جهت مشارکت در فرآیند درمان نقش موثری در ارتقاء کیفیت زندگی بیمار و خانواده داشته باشند.

بحث: از آنجایی که زنان به عنوان هسته اصلی خانواده نقش مهمی را ایفا می کنند، سلامت و بیماری آنها می تواند به طور مستقیم سلامت کل خانواده و جامعه را نیز تحت تاثیر قرار دهد. با بروز سرطان پستان ،مسائل مربوط به بیماری و درمان، به مشکلات جاری زندگی زنان جوان اضافه شده و می تواند منجر به کاهش مراقبت از خود در زمینه های جسمی، روحی روانی و اجتماعی شود، همچنین می تواند معضلات اقتصادی و روانی ⊢جماعی برای خانواده نیز ایجاد نماید. مراقبت پرستاری در منزل به عنوان مکمل مراقبت از زنان مبتلا به سرطان پستان، می تواند بیشتر از مراقبتهای بیمارستانی در افزایش کیفیت زندگی بیمار و خانواده اثر بخش باشد. در این شرایط بیماران مراقبتهای ضروری را در منزل دریافت کرده و خطر عفونتهای بیمارستانی نیز کاهش می یابد. همچنین بیمار در محیط گرم خانواده علاوه بر دریافت مراقبت، تحت حمایت اعضای خانواده قرار می گیرد.پرستار طی مراقبت در منزل با جلب مشارکت بیمار و خانواده می تواند به اهداف بازتوانی سریعتر دست یافته و با افزایش کیفیت مراقبت، در ارتقاءکیفیت زندگی بیمار و خانواده نقش تعین کننده ای داشته باشد.

تیجه گیری و پیشنهادات: علی رغم اهمیت مراقبتهای پرستاری خانواده محور در ارتقاء کیفیت زندگی زنان مبتلا به سرطان و خانواده ، تاکید بر مشکلات بیماران بیش از خانواده ها می باشد و با توجه به اینکه در کشور ما خانواده جایگاه ویژه ای در حمایت از بیماران دارد، مراقبتهای پرستاری خانواده محور از جمله مراقبت پرستاری در منزل می تواند نقش ویژه ای در ارتقاء کیفیت زندگی بیمار و خانواده داشته باشد.

کلمات کلیدی: کیفیت زندگی،مراقبت در منزل، پرستاری، سرطان پستان





#### Knowledge, attitude and practice of menopause women towards breast cancer

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#### Background

Premenopausal women with breast cancer often enter a premature menopause during initial treatment of their malignancy, with resulting loss of childbearing capacity, onset of menopausal symptoms, and subsequent prolonged exposure to long-term risks of menopause. Adjuvant therapy is believed to contribute to this early menopause.

#### Methods

96 menopause women from 5 health center in Shahrekord were recruited for the study in in February 2014. Using interviewer-administered questionnaires designed to socio demographic information and knowledge, attitude and practices of these women towards breast cancer.

#### Results

Study participants had poor knowledge of breast cancer. Mean knowledge score was 32.6%. Practice of breast self-examination was low; only 47.2% participants admitted to carrying out the procedure in the past year. Only 7.1% study participants had clinical breast examination in the past year. Women with higher level of education were significantly more knowledgeable about breast cancer. Participants with higher level of education were more likely to practice breast self-examination.

#### Conclusion

The results of this study suggest that menopause women have poor knowledge of breast cancer and minority practice BSE and CBE. In addition, education appears to be the major determinant of level of knowledge and health behavior among the study participants. We recommend strategies and guidelines that will enhance information about breast cancer to all women.





# in-silico analysis of hsa-mir-146a targetome pathway and its SNP function in patients with breast cancer: probable association between alleles and prognosis

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#### Abstract:

**Background:** According to the World Health Organization, breast cancer is the most common diagnosed cancer in women. MicroRNAs (miRNAs) are causing tremendous excitement in cancer research. miRNAs have been shown to regulate oncogenes, tumor suppressors and a number of cancer-related genes. mir-146a is a tumor suppressor miRNA proposed as a biomarker in breast cancer.

**Objective:** the aim of our study is to expand current knowledge about molecular function of miR-146a and a potential biomarker in breast tumor cells by using bioinformatics tools.

**Methods:** validated and predicted targets of miR-146a were obtained from miRtarbase and miRwalk databases. UniGene and DAVID databases were used for further analysis. MIRSNP database predicts single nucleotide polymorphism in miR-146a and its function.

**Results:** Our data manifested KEGG signaling pathways "pathway in cancer" as the most statistical relevant pathway with miR-146a targetome. Interestingly, it revealed that miR-146a inhibit some important breast cancer-related pathways such as TGF $\beta$ RI, PDGF by targeting some well-known oncogenes such as SMAD2/3, SMAD4, PDGFR. rs2910146 is located in mir-146a seed. It is predicted that G allele could increase stability of the stem-loop structure of mir-146a.

**Conclusion:** According to our data miR-146a may be related to breast cancer through targeting its targetome leading to proliferation, invasion, migration and evading apoptosis in breast cancer. Therefore hsa-mir-146a is a potential tumor suppressor miRNA which could be used as worthwhile prognostic biomarker. Allele G in the SNP could have good prognostic value for breast cancer centers due to its effect on mir-146a stability.

Key words: Breast cancer, miR-146a, SNP, targetome, signaling pathway.





# A comparison of body image and public health among breast cancer patients with breast evacuation, breast keeping and normal people in Tehran

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A comparison of body image and public health among breast cancer patients with breast evacuation, breast keeping and normal people in Tehran

#### Abstract

The present study was conducted aiming to compare public health and body image among breast cancer patients with breast evacuation, breast keeping and normal women in Tehran. The method of the present study, due to the lack of interference to alter the research variables, was causal comparative. The statistical population included all women with breast cancer and normal women in the city of Tehran. From these people in each group 80 individuals were selected through available sampling from clients of medical centers and special hospitals in Tehran during October 2012 to December 2013. The applied instruments were the questionnaires of public health, body image, and marital satisfaction. The achieved data were analyzed via one-way ANOVA and Tukey test by SPSS software. The results of the analysis showed that there is a significant difference between the mean scores of body image and public health in three groups (women with cancer who evacuated their breast, those who didn't and normal ones)(p<0.01). Taking the findings of the study, the women with breast cancer suffer from psychological problems besides physical problems, the main reason whereof is the very physical problems. Therefore these kinds of problems should be attended besides physical treatments.

Key words: public health, body image, breast cancer.





## p4-20

#### Predicting the survival in breast cancer using Hidden Markov Model

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#### Abstract

Among the women worldwide breast cancer is one of the widespread killer diseases. Early detection of the disease is important in patient survival. The main objective of this research was to evaluate predictive ability of hidden markov model in prediction of breast cancer survivability.

The breast cancer data set used in this investigation were acquired of Health department of Kerman province and includes the information of 900 breast cancer patients, aged 15 to 80 years, and its associated risk factors among patients since 1999 to 2007. Hidden markov model was made based on a set of 675 patients information (75% of data) and that was validate in a test set of 225 patients information (25% of data). The Area Under the ROC Curve (AUC), sensitivity, specificity and accuracy used as measures of validate of the efficiency of model.

The sensitivity, specificity, accuracy and the area under the ROC curve of the hidden markov model was 0.989, 0.99, 0.939 and 0.94, respectively. According to the four evaluation criteria, hidden markov model had good performance, therefore hidden markov model and predict the diagnosis of breast cancer is recommended.

Keywords: Hidden markov model (HMM), EM algorithm, Breast cancer, survival





## Breast Carcinoma Stages Diagnosis by Expression of breast Cancer-Specific Gene1

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#### Abstract

Breast cancer is the most frequent cause of death due to cancers among women. Breast cancer development and progression is accompanied by multiple genetic and epigenetic changes that lead to qualitative and quantitative alternations in individual gene expression. Breast cancer-specific gene (BCSG1), is highly expressed in a breast cancer tumors and this gene is suggested as a prognosis factor in progression of breast cancer. In this study RNA of 50 breast tumors were extracted, which pathologically diagnosed, and then expression pattern of BCSG1 in different stages of tumors were analyzed by using Real-time PCR. By comparing expression pattern of BCSG1 in different tumor tissues, it was demonstrated that BCSG1 gene expression is directly associated with staging of tumors. Our data suggests that up regulated BCSG1 gene expression is potentially involved in the pathogenesis of breast cancer and it can be used as a strong prognostic factor in breast cancer.

Key Words: Breast cancer, BCSG1, Real-time PCR, Gene-expression.





# The Impact of Intraoperative Radiation Therapy in the Breast Cancer

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**Background:** In general External Beam Radiotherapy (EBRT) is regarded as safe for most patients, however there are a number of side effects that can limit and in some cases avoid its use in breast cancer patients. Intraoperative radiotherapy (IORT) is a guaranteeing methodology for delivering accelerated, partial breast irradiation (APBI). For a woman with breast cancer, the prospect of receiving radiation therapy in a single dose during surgery, instead of experiencing six weeks of radiation medicines, is a welcome one.

**Objective:** The aim of this study is assessing the role of intra-operative radiation therapy in the current management of breast cancer.

**Results:** Restriction of radiation therapy to the tumor bed during surgery may be acceptable for selected patients. IORT delivery generally adds around 45 min to the operating room time. The method of reasoning for considering IORT in breast malignancy originates the way that around 85% of local recurrences show up in the tissue adjacent to the lumpectomy site within 5 years of treatment. For surgery alone, the recorded 10-year repeat rate is 10–30%. When postoperative radiotherapy is delivered, the local recurrence rate is under 10%. Since most recurrences are near the operative site, partial breast irradiation using IORT is an appealing alternative. Condensing the entire therapeutic dose into a single fraction, delivering the treatment at the time of lumpectomy in the operating room, and with the ability to spare normal surrounding tissue to a greater extent than perhaps any other form of APBI, IORT offers numerous potential advantage.

**Conclusion:** In perspective of the number of publications identified with IORT, improvement and usage of randomized clinical trials for most cancer sites ought to be conceivable. Targeted IORT allowed the entire dose of radiotherapy to be directed in a single fraction at the time of breast-conserving surgery, therefore avoiding the need for repeated radiotherapy treatments or placement of indwelling radiotherapy devices. Intraoperative radiotherapy in patients with a low risk of recurrence could be the only treatment required. In patients with high risk of recurrence, accurate targeting of intraoperative radiotherapy might improve on the conventional external-boost treatment.

Keyword: IORT, Breast Cancer, Radiotherapy





#### Sunlight exposure, vitamin D, and the prevention of breast cancer

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**Introduction:** Breast cancer is the most common cancer diagnosed and the second most common cause of cancer mortality in women. Vitamin D is one of the critical factors for female reproductive health which may have protective activities against many cancer types, including breast cancer.

**Methods:** This study was a comprehensive literature review performed through searches in databases such as Medline, PubMed, Science Direct, Scopus, and Google Scholar using the terms "Breast Cancer, Vitamin D, Sunlight exposure, and Cancer prevention ".

**Findings:** According to the study's results vitamin D plays an important role in the prevention of breast cancer. Vitamin D plays a role in cell differentiation and may thus protect against breast cancer and its deficiency could be correlated by obesity, low levels of dietary intake, lack of chronic (not intermittent) sun exposure.

**Conclusions:** These findings are discussed that vitamin D intake and sunlight exposure are protective factors for breast cancer. Vitamin D supplementation is a low cost, effective, and safe intervention strategy for breast cancer prevention. Hence health care providers can play a crucial role in prevention of breast cancer and promotion of society health by education of women in field of lifestyle modification with emphasis on the nutrition.

Key words: Breast Cancer, Vitamin D, Sunlight exposure, and Cancer prevention





# Psychological interventions and pain control in breast cancer patients

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#### Abstract

**Introduction:** Breast cancer is the second most common cancer in the world and the most common cancer among women. Pain is a common and often disabling problem in breast cancer patients. Estimates indicate that pain is experienced by 25% of newly diagnosed cancer patients and by 60% to 90% of patients with advanced cancer. Persistent pain after breast cancer treatment is prevalent, and not all patients respond sufficiently to pharmacological treatment. Pain is recognized as a multi-dimensional phenomenon, which includes psychological and social components. American Pain Society standards for pain management in cancer recommend both pharmacologic and psychosocial approaches.

**Methods:** This study was a comprehensive literature review performed through searches in databases such as Medline, PubMed, Science Direct, Scopus, and Google Scholar using the terms "Breast Cancer, Pain management, Psychological intervention, and Cancer treatment ".

**Findings:** Results of studies showed psychological interventions include education (with coping skills training), hypnosis, cognitive behavioral approaches, psychosocial supports and relaxation with imagery are affective on reducing pain among patients with breast cancer.

**Conclusions:** According to efficacy of psychological interventions in reducing breast cancer pain, seems multidisciplinary teams are essential in oncology settings to integrate analgesic care and expertise in psychological and behavioral interventions in standard care for symptom management, including pain.

Key words: Breast Cancer, Pain management, Psychological intervention, Cancer treatment





#### Quercetin decrease leptin gene expression in breast cancer

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#### Abstract

Leptin plays the role of mitogenic factor in the breast carcinogenesis. Quercetin, a flavonoid that has existed in nature. The aim of this study was the investigation of potentiality of Quercetin for inhibition of leptin gene expression and secretion, and its link with expression of estrogen receptors. Cytotoxic effect of Quercetin on T47D breast cancer cells was investigated by MTT assay test after 24h treatments with different concentrations of Quercetin. The levels of leptin, estrogen receptor  $\alpha$  and estrogen receptor  $\beta$  genes expression was measured by reverse-transcription real-time PCR. The amount of secreted leptin in the culture medium was determined by ELISA. Data were statistically analyzed by one-way ANOVA test. Quercetin inhibits growth of T47D cells in a time and dose dependent manner. There was significant difference between control and treated cells in the levels of leptin, estrogen receptor  $\beta$  expression levels and the quantity of secreted leptin was decreased in the treated cells in comparison to control cells. In conclusion, Quercetin inhibits the expression and the secretion of leptin and in the future it might probably be a drug candidate for breast cancer therapy through leptin targeting.

Keywords: Leptin, Quercetin, Breast cancer, T47D cell line





#### Molecular Mechanisms of Melatonin anti cancer activity in breast cancer mini review article

Elaheh Nooshinfar, Mohamad Esmail Akbari

#### Summery

Melatonin is a natural hormone in body that produced mainly by the pineal gland at darkness .Melatonin secretion decreases with aging , The researchers showed that there is a low incidence of breast cancer in blind women, and an inverse relationship between breast cancer incidence and the visual impairment caused to pay more attention to melatonin as an effective agent duo to breast cancer ,but why and how melatonin acts? The purpose of this review is orientation with different molecular mechanisms of melatonin function in prevention and treatment of breast cancer.

To open access the articles, we searched valid databases, first we determined mean key words, then identified equivalent terms and with use of appropriate operators, the formula was developed. at least, we selected articles about , molecular action of Melatonin in breast cancer and based on, the review was done.

The results indicated that melatonin acts as a strong anti oxidant that prevents DNA against free radicals and carcinogens also protects it from damage. this hormone activates immune system by stimulate killer cells. In cellular functions, melatonin effects on breast cancer cells through MT1 receptors, the studies indicated that melatonin decreases the activity of estrogen receptors, increases the transcriptional activity of RAR alpha, inhibits MAPK cell signaling pathways, activates apoptosis through increases Bax expression, decreases the activity of ROR alpha, melatonin through decreases in SIRT1(Sirtuin1), activates PER1 and PER2 ,Period genes that produced period circadian protein, .melatonin has an anti metastatic effect through inhibit the P38 MAPK signaling pathways, so stop proliferation. In addition, telomerase activity is observed in 85%–90% of all cancers, melatonin has an anti telomerase activity.

**Conclusion:** due to the safety of melatonin and the wide molecular actions of it on breast cancer ,it seems that melatonin can be consider in programming and writing the guidelines to prevent and help to the treatment of breast cancer.

Key words: molecular mechanisms, breast cancer, melatonin





## P6-15

آیا سلامت معنوی برارتقای کیفیت زندگی افراد مبتلا به سرطان پستان تاثیر دارد؟

**نویسنده:** زهرا عبادی نژاد؛ دانشجوی کارشناسی ارشد پرستاری کودکان، دانشگاه علوم پزشکی شهید بهشتی، تهران، ایران

مقدمه: سرطان بعد از بیماریهای قلبی عروقی دومین علت مرگ در جوامع انسانی است. سرطان پستان اولین سرطان در زنان ایرانی است و مهمترین علت مرگ در بین زنان در اثر سرطان می باشد. سرطان پستان یکی از مهمترین عواملی است که کیفیت زندگی افراد مبتلا را تحت تاثیر قرار می دهد. یکی از راه های ارتقای کیفیت زندگی سلامت معنوی می باشد. معنویت یک مفهوم ذهنی، شخصی و وابسته به فرد است که جنبه های غیر مادی انسان را شامل می شود. مراقبت معنوی، بخش ضروری در ارائه مداخلات پرستاری بوده و پرستارانی که با بیماران مبتلا به بیماری های مزمن مواجه هستند، لازم است توانایی تأمین این نوع مراقبت را داشته باشند

**مواد و روش ها:** در این مقاله، مرور جامع متون با استفاده از شبکه جهان گستر انجام شد.کلید واژه های مورد استفاده: سلامت معنوی، سرطان پستان و کیفیت زندگی بود که در مجلات معتبر موجود در پایگاه داده های ایرانی و بین المللی از جمله Scholar IranMedex,Pubmed,ScienceDirect,Sid,Google و با دو زبان فارسی و انگلیسی از سال ۲۰۰۸–۲۰۱۴ مورد استفاده قرار گرفت.

**یافته ها:** مرور متون نشان داد که بین سلامت معنوی و ارتقای کیفیت زندگی بیماران مبتلا به سرطان پستان تاثیر مثبتی دارد. سلامت معنوی جزء مهمی در ارتقای کیفیت زندگی بیماران مبتلا به سرطان من جمله سرطان پستان می باشد. طبق یافته ها افرادی که از سلامت معنوی برخوردار بودند احساس بهتری داشتند.

**نتیجه گیری:** به دنبال تشخیص و درمان بیماران مبتلا به سرطان پستان کیفیت زندگی بیماران دستخوش تغییرات قرار می گیرد. راه های گوناگونی از جمله سلامت معنوی برای ارتقای کیفیت زندگی وجود دارد. پرستاران می توانند در هر یک از مراحل بیماری درک بهتری از شرایط بیمار مبتلا داشته و به تخفیف پیامدهای ناشی از ابتلا به سرطان از جمله کاهش کیفیت زندگی کمک کنند.

کلید واژه ها: سلامت معنوی، سرطان پستان و کیفیت زندگی





## **Breast Cancer and Spiritual Health**

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**Background & Aim:** Breast cancer is the most common type of cancer for women. The purpose of this study was to find out the role of spirituality and spiritual well-being in patients with breast cancer.

**Material & Methods:** Review of literature about breast cancer and spiritual health was performed in extensive research library and databases of ISI, Science Direct and PubMed. Regarding the integrity of the content a number of papers were selected and the results of these papers were discussed.

**Results:** Breast cancer can lead to important mental and physical health problems. Women with breast cancer and their family, experience a high degree of stress. A treatment plan should be comprehensive and needs to include the spiritual health as well as the physical and psychosocial health in patients. Spirituality is an important element in cancer patients and it can help them.

**Conclusion:** Spirituality as a psychological resource can support the cancer people. Thus preserve and promote the spiritual health in breast cancer people, are one of the main tasks of nurses.

Keywords: Nurses, Spiritual Health, Breast cancer





P6-14

#### معنویت و سرطان پستان

**نویسنده:** فاطمه نیک سرشت؛ دانشجوی کارشناسی ارشد پرستاری کودکان، دانشگاه علوم پزشکی شهید بهشتی

مقدمه: امروزه سرطان پستان، شایع ترین سرطان در زنان ایران و جهان می باشد. این بیماری از همان بدو تشخیص باعث ترس، نگرانی، اضطراب و ناامیدی زیادی گردیده و اعتماد به نفس و ایمان مذهبی را به خطر می اندازد. به دنبال تشخیص بیماری، سؤالات متعددی در زمینه چرایی ابتلا به بیماری و معنای زندگی مطرح می شود و ممکن است بحران های معنوی زیادی راایجاد کند؛ راهبرد های سازگاری قبلی ناکافی به نظر می رسد نیازهای معنوی بیماران بیش تر گردیده و معنویت، به عنوان نظام عقیدتی فرد که بر جستجوی معنا و هدف زندگی تمرکز داشته و در ارتباط با وجودی متعالی می باشد، می تواند منبع حمایتی مهمی برای بیمار مبتلا باشد. این مقاله قصد دارد نقش معنویت را در زنان مبتلا به سرطان پستان مورد توجه قرار دهد. **مواد و روش ها**:در این مقاله، مرور جامع متون با استفاده از شبکه جهان گسترانجام شد. کلید واژه های مورد استفاده، سرطان پستان، معنویت، زنان مبتلا به سرطان بودند که در مجلات معتبر موجود در پایگاه داده های ایرانی و بین المللی از جمله، Bodit به سرطان پستان، معنویت، زنان

**یافته ها**: مرور یافته ها نشان داد که معنویت نقش مؤثری را در سازگاری با بیماری و کاهش مشکلات جسمی و روانی، در زنان مبتلا دارد که با توجه به شرایط فرهنگی و مذهبی جامعه ما می توان از معنویت به عنوان راهبردی مناسب برای سازگاری با بیماری و مشکلات ناشی از آن بهره برد. **نتیجه گیری**: مسائل مربوط به معنویت به عنوان مؤلفه ای ضروری در تجربه بیماری های مزمن هم چون بیماری سرطان، به گونه ای کاملا جدی که می تواند نگاه زنان مبتلا را نسبت به عنوان مؤلفه ای ضروری در تجربه بیماری های مزمن هم چون بیماری سرطان، به گونه ای کاملا جدی که می تواند نگاه ای منویت به عنوان مؤلفه ای ضروری در تجربه بیماری های مزمن هم چون بیماری سرطان، به گونه ای کاملا جدی که می تواند نگاه زنان مبتلا را نسبت به عنوان مؤلفه ای ضروری در تجربه بیماری های مزمن هم چون بیماری سرطان، به گونه ای کاملا جدی که می تواند نگاه زنان مبتلا را نسبت به خود، بیماری و آینده تحت تاثیر قرار دهد، مورد پذیرش قرار گرفته است. از این رو پرداختن به معنویت دارای در مسیر بیماری اهم یک می تواند می می توان می بازد که بایستی بیش تر مورد توجه قرار گیرد.





P6-13

# معنویت و رشد پس از سانحه در زنان مبتلا به سرطان پستان

**نویسنده:** فائزه ترابی؛ دانشجوی کارشناسی ارشد پرستاری کودکان، دانشگاه علوم پزشکی شهید بهشتی

مقدمه: سرطان پستان، شایع ترین سرطان در زنان ایرانی است. تشخیص سرطان پستان، عامل استرس زای مهمی می باشد، به طوری که این بیماران سطوح بالینی آشفتگی شامل اختلال استرس پس از سانحه، افسردگی و اضطراب را گزارش می کنند. رشد پس از آسیب، تجربه تغییر فردی مثبت ناشی از رویارویی با بحران یا رویداد آسیب زا است. یکی از مداخلاتی که ممکن است بر علائم بیماری و کنار آمدن با بیماری در این بیماران تأثیر مثبت داشته باشد، مداخله بر پایه معنویت می باشد. معنویت می تواند منبع حمایتی مهمی برای این بیماران باشد. این مقاله قصد دارد نقش معنویت را بر رشد پس از سانحه در زنان مبتلا به سرطان پستان مورد توجه قرار دهد.

مواد و روش ها: در این مقاله، مرور جامع متون با استفاده از شبکه جهان گسترانجام شد. کلید واژه های مورد استفاده، سرطان پستان، معنویت، زنان مبتلا به سرطان و رشد پس از سانحه بودند که در مجلات معتبر موجود در پایگاه داده های ایرانی و بین المللی از جمله، PubMed، Science Direct, Magiran, IranDoc, Sid، IranMedex، مورد جستجو قرار گرفت.

**یافته ها**: مرور متون نشان داد که بین معنویت و رشد پس از سانحه در زنان مبتلا به سرطان پستان، رابطه مثبت معناداری وجود دارد. معنویت در افراد مبتلا به سرطان در حکم یک پیامد مثبت در جهت سازگاری با بیماری و دادن معنای جدید به زندگی و کاهش پریشانی کمک می کند و با پاسخ های انطباقی تر کنار آمدن، تاب آوری بالاتر در مقابل استرس، جهت گیری خوش بینانه به زندگی در ارتباط می باشد.

**نتیجه گیری**: معنویت بهزیستی را در بیماران مبتلا به سرطان ارتقا می دهد و نقش حیاتی را در فرآیند رشد پس از آسیب ایفا می کند و باعث یافتن معنای جدید در زندگی می شود. آگاهی از نیازهای معنوی و تشویق برای استفاده از مداخلات معنوی توسط پرستاران به منظور اجرای مراقبت پرستاری کل نگر در حین درمان ضرورت دارد. بنابراین با برنامه های درمانی و مراقبتی مبتنی بر معنویت می توان در جهت رشد پس از آسیب در بیماران مبتلا به کل نگر در حین درمان ضرورت دارد. بنابراین با برنامه های درمانی و مراقبتی مبتنی بر معنویت می توان در جهت رشد پس از آسیب در بیماران مبتلا به کل نگر در حین درمان ضرورت دارد. بنابراین با برنامه های درمانی و مراقبتی مبتنی بر معنویت می توان در جهت رشد پس از آسیب در بیماران مبتلا به سرطان پستان گامی موثر برداشت.

كليد واژه ها: سرطان پستان، معنويت، زنان مبتلا به سرطان و رشد پس از سانحه





# Stability and thermodynamic investigation of embryonic stem cell marker Sox2 in breast cancer stem cells by spectroscopic and modeling techniques

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#### Abstract

Sox2 (sex-determining region Y-box protein 2) is a transcription factor involved in the regulation of embryonic development and determination of cell fate. Sox2 is essential for self-renewal and pluripotency of embryonic stem cells (ESCs), as gene knockdown of Sox2 induces differentiation in ESCs. Sox2 is aberrantly expressed in breast and other cancers.

In breast cancers, 16–30% of the tumors have been reported to express Sox2 detectable by immunohistochemistry while adult benign breast tissues show low to no Sox2 expression. Sox2 expression has been reported in all 4 majormolecular subtypes of breast cancer. In addition, Sox2 immunoreactivity correlates with a worse clinical outcome in breast cancer patients. Sox2 siRNA treatment has been shown to decrease proliferation in breast cancer cells, and Sox2 overexpression has been reported to increase in mammosphere formation in vitro. Sox2 expression was associated with larger tumor size and positive lymph node status.

Cancer stem cells (CSCs), are responsible for tumor relapse, metastasis, and chemoresistance. Present chemotherapy modalities eliminate the bulk of tumor cells, but cannot eliminate the core of these cancer stem cells. Therefore, focusing therapies on cancer stem cells is more effective for the treatment of breast cancer.

The conformational stability of a protein is defined as the free energy change ( $\Delta G^{\circ}$ ). The marginal stability of proteins makes the use of certain proteins in industrial or pharmaceutical applications difficult, especially when the protein is subjected to extremes of temperature and pH, or to destabilizing solvents such as organic solvents.

The aim of this study was to investigation stability Sox2, Under different environmental conditions (such as pH, polarization, surfactant) by various kind of spectroscopic and molecular modeling techniques.

Our findings suggest that content of the secondary structure, tertiary structure, florophor environment, hydrophobicity Sox2 changes under different environmental conditions. we concluded that the ionic strength changes the protein structure sox2. Been reviewed situations can be used for the design of anti-cancer drugs.

Keywords: Sox2, ESC, spectroscopy, protein stability, thermodynamic parameters.





# Breast cancer screening barriers from women's perspective: a systematic review in qualitative studies and critical appraisal

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#### Abstract:

**Background:** The principal aim of the health service providers in the field of breast cancer is to detect and treat breast cancer in the appropriatetime. Therefore:, identification of the barriers to screening can be very helpful.

**Methods:** In this systematic review; some medical related sites were searched using the keywords: screening barriers, cancer, qualitative studies, Breast and their Persian equivalents were extracted and analyzed using the extraction table. To assess the quality of the studies, (CASP) tool was used.

**Results:** from 2134 found related articles, 21 articles were eventually included in the study. The most important barriers in view of 1084 women respectively were: lack of knowledge, access barriers (financial, geographical, cultural), fear (of results and pain), performance of service providers, women's beliefs, procrastination of screening, embarrassment, long wait for getting an appointment, language problems, and previous negative experiences. Articles' assessment score was 68.91.

**Conclusion:** increasing women's knowledge, reducing the costs of screening services, screening service culture promotion, presentation of less painful methods, change of beliefs of health service providers, provision of private environment for service giving, decreasing the waiting time for getting an appointment, and providing high quality service and appropriate behavior can be effective ways to increase breast cancer screening.

Keywords: breast cancer, screening, barriers, women's prospective, qualitative studies





# The effects of vitamin C administration on conventional treatment in patients with breast cancer: A review

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**Introduction:** Ascorbic acid (AA) readily neutralized reactive oxidant species due to its electron donor-acceptor properties. This oxidoreductase activity makes vitamin C related to various cancers including breast cancer. Method: This paper was provided as a review by selecting related items which published between the years 2000-2014. Documents were collected from databases, PubMed and Google Scholar. Results: Results of laboratory and human studies indicated AA had a dual effect on breast cancer cells, which probably depended on its blood concentrations. It had an antioxidant action in physiologic blood levels. While, in higher concentrations acted as a pro-oxidant agent only in cancer cells. Dose and method of administration are factors affecting on plasma levels of vitamin. It seems cytotoxic concentrations of vitamin only obtained by intravenous (i.v) administration, not oral intake. Generation of hydrogen peroxide (H2O2) was accounted as important mechanisms in vitamin's pro-oxidant activity. Impaired antioxidant systems in disease cells caused to the generated H2O2 by AA auto-oxidation selectively kill cancer cells. Discussion: i.v use of ascorbic acid is found to create cytotoxic blood levels of vitamin. Such finding can suggest a new approach to synergism effect of a seemingly antioxidant vitamin with conventional treatments such as chemotherapy.

Key words: Breast cancer, Ascorbic acid, Conventional treatments





# P6-12

#### مرور نظام مند راهکارهای مقابله و سازگاری با سرطان پستان

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**زمینه:** سرطان پستان شایعترین سرطان زنان می باشد و بروز آن در جهان و بویژه درکشورهای در حال توسعه درحال افزایش است.. باوجود این، بقاء ناشی از این سرطان در سالهای اخیر، به دلیل ارتقاء روش های تشخیصی و پیشرفت در درمان این بیماری افزایش یافته، باوجود این، علی رغم پیشرفت های بدست آمده در درمان این سرطان در سالهای اخیر، به دلیل ارتقاء روش های تشخیصی و پیشرفت در درمان این بیماری افزایش یافته، باوجود این، علی رغم پیشرفت های بدست آمده در درمان این سرطان در سالهای اخیر، به دلیل ارتقاء روش های تسخیصی و پیشرفت در درمان این بیماری افزایش یافته، باوجود این، علی رغم پیشرفت های بدست آمده در درمان این سرطان در سالهای اخیر، به دلیل ارتقاء روش های تشخیصی و پیشرفت در درمان این بیماری افزایش یافته، باوجود این، علی رغم پیشرفت های بدست آمده در درمان این سرطان در سالهای اخیر، به دلیل ارتقاء روش های تشخیصی و پیشرفت در درمان این بیماری افزایش یافته، باوجود این، علی رغم پیشرفت های بدست آمده در درمان این سرطان در سالهای اخیر، به دلیل ارتقاء روش های تشخیصی و پیشرفت در درمان این سرطان و افزایش میزان بقاء بیماری، پرداختن به نحوه پذیرش این بیماری از سوی بیمار و روشهای مقابله ( coping behaviors) با این بیماری در جهت رسیدن به سازگاری، کمتر مورد توجه قرار گرفته است.

**هدف:** هدف از مطالعه حاضر بررسی شیوه های مقابله ای مبتلایان به سرطان پستان در رسیدن به سازگاری با بیماری می باشد.

روش کار: با جستجو در پایگاه های الکترونیک اطلاعاتی Elsevier, Ovid, Springer، مطالعه حاضر محدود به مطالعات مرتبط انگلیسی زبان از سال Elsevier, Ovid, Springer بوسیله واژه های کلیدی مطالعات مرتبط مورد بررسی قرار گرفت. مطالعه حاضر محدود به مطالعات مرتبط انگلیسی زبان از سال ۲۰۰۰ تا کنون و مقالات فارسی بدون محدودیت زمانی و شامل مطالعات کمی و کیفی بودند. ۱۳۳ مطالعه از جستجوی اولیه به زبان انگلیسی بدست آمد که در نهایت ۲۰۰۰ تا کنون و مقالات فارسی بدون محدودیت زمانی و شامل مطالعات کمی و کیفی بودند. ۱۳۳ مطالعه از جستجوی اولیه به زبان انگلیسی بدست آمد که در نهایت ۴۱ مقاله به زبان انگلیسی و ۴ مقاله به زبان فارسی بدون محدودیت زمانی و شامل مطالعات کمی و کیفی بودند. ۱۳۳ مطالعه از جستجوی اولیه به زبان انگلیسی بدست آمد که در نهایت ۴۱ مقاله به زبان انگلیسی و ۴ مقاله به زبان فارسی با در نظر گرفتن معیارهای ورود تحقیق انتخاب شدند. معیارهای ورود شامل مقالات اصیلی( original article ) به زبان انگلیسی و ۴ مقاله به زبان فارسی با در نظر گرفتن معیارهای ورود تحقیق انتخاب شدند. معیارهای ورود شامل مقالات اصیلی( original article ) به زبان انگلیسی یا فارسی با در نظر گرفتن معیارهای ورود تحقیق انتخاب شدند. معیارهای ورود شامل مقالات اصیلی( original article ) به زبان انگلیسی یا فارسی بوده، روشهای مقابله ای با سرطان پستان را در زنان بررسی کرده و روشهای مقابله ای بکار گرفته شده توسط زنان مبتلا به سرطان پستان توسط طراحی کمی یا کیفی مورد ارزیابی قرار گرفته شده بود.

**نتایج:** یافته ها نشان داد روشهای مقابله ای برای رسیدن به سازگاری با سرطان پستان بر طبق نظریه لازاروس و فولکمن جای داشتند و عمدتا شامل دو دسته روشهای مقابله ای مبتنی بر حل مساله – تلاش برای دریافت اطلاعات راجع به بیماری، مقابله با ناامیدی، معنویت درمانی، ارتباط با همتایان درمان شده، وجه بیشتر به اصلاح شیوه زندگی – و روشهای مقابله ای مبتنی بر هیجان– ترس، انکار، یاس و ناامیدی، افسردگی، انزوا و تسلیم تقدیر شدن– بودند که در موارد رویکردهای مبتنی بر حل مسئله منجر به سازگاری و در صورت رفتارهای اجتنابی و هیجان مدار مقابله با بیماری و دستیابی به سازگاری را مشکل می سازد. بیشترین رویکردهای اجتنابی بر حل مسئله منجر به سازگاری و در صورت رفتارهای اجتنابی و هیجان مدار مقابله با بیماری و دستیابی به سازگاری را مشکل می سازد. بیشترین رویکردهای اجتنابی در افراد جوان و واقع در سنین پیش از یائسگی گزارش می شد و مهم ترین نیازهای بیماران در حین روند درمانهای مکمل (شیمی درمانی و پرتودرمانی) بروز می نماید.

**نتیجه گیری:** لزوم ارتقاء آگاهی و خدمات مشاوره ای موثر با بیماران از ابتدای تشخیص و پس از اتمام درمان، از مهم ترین نیازهای پنهان بیماران است که باید به اندازه درمانهای جراحی و مکمل و درکنار آنها مورد توجه قرار گیرد و قابل دسترس برای همه بیماران مبتلا به این سرطان باشد.





#### **Futures of Breast Cancer in Iran**

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In the past 50 years and after the development of new drugs for diseases with high mortality rate such as cardiovascular disease, the occurrence rate of cancers was dramatically increased (1). Breast cancer is the second (in Iran Breast Cancer is the first) most common cause of death from cancer in women with 30-60 years old worldwide with diagnosing over 1.6 million cases annually (2). The most important risk factors of Breast Cancer include, mammographic density, age, gender and BRCA1 and BRCA2 carrier status (3). Unfortunately, in the last decade, the incidence rate of this cancer has increased in Iran with a high mortality rate and occurs in at least 10 years younger women by mean age ranging from 47.1 to 48.8 years in comparison to developed countries (3). New cases of breast cancer in Tehran were reported 1603, 3946 and 4557 in 2000, 2003 and 2004 respectively. According to screening programs, the prevalence rate of breast cancer was reported as 352, 660 and 120 per 100,000 in Bushehr, Shiraz and Northwest of Tabriz respectively (3). In developed countries, a significant decreased in death rate from Breast Cancer were reported because of diagnosis at an earlier time, improved surgical and radiotherapy techniques, and enhanced systemic therapies (4). According to various guidelines, population based mammography in asymptomatic women is offered for early identification of Breast Cancer (5) and lack of national program for screening of women for Breast Cancer in Iran is the main cause of increasing clinical Breast Cancer detection and mortality of this type of cancer.





# Breast cancer with Acrometastasis Of hands, two case reports from Ostad Alinasab Hospital in Tabriz(north west of Iran).

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Bone metastases are frequently seen in patients with malignancies, up to 70% in breast cancer, but approximately only %0/1-0/3% of these metastases are located in the hand or foot. In 16% of patients, acrometastasis is the first manifestation of a malignancy, mimicking a benign condition, the lesion will appear similar to that of an infection or inflamation , and often present with pain, redness or discoloration, tenderness, heat, swelling, erythema, or loss of function. The mechanism responsible for the deposition of metastatic tumour cells within the hand is unclear, but an increase in blood flow or a trauma has been suggested in the past, and more recently, it has been suggested that the chemotactic factors (prostaglandins) and angiogenesis and growth factors has anyrols, and most in the dominant hand. The most commonly involved bones are the phalanges in the hand and the tarsal bones in the foot.

These acrometast as a poor prognosis with a median survival of 6month, and early diagnosis is important to offer adequate treatment. Amputation, radiotherapy, curettage, cementation, chemotherapy, bisphosphonates, and wide excision are the forms of treatment used most often.

CASE ONE :The 51 years old woman with 5years past history of right side breast carcinoma (T2N2M0-ER+,PR+,HER2\_ ,8course CA/T chemotherapy and 50GY radiation therapy-4years tamoxifen therapy (20mg daily), alendronate 70mg weekly, Calcium D(3 tab per day)) referred for pain and redness and inflammatory state in first metacarpal of right hand, and lytic destructive bone lesionin the first metacarp...

CASE TWO: the 32year-old woman referred to our clinic with a two week history of right index finger pain,redness, and swelling without any history of trauma. The pain did not respond to NSAIDs ,narcotics and antibiotics. Inphysical examination revealed a mass like bone lesion in proximal phalanx of right index finger. An X-ray of his right hand lytic and destructive bon lesion in proximal phalanx of the right index finger . She subsequently underwent biopsy of the finger lesion . Pathology from the specimen revealed a metastatic adenocarcinoma , most probably from breast or lung (primary lesion ). CT scan of thorax and abdomen and pelvic was normal , but in digital mammography and sonography of breasts, a 7mm lesion was seen in left breast (outer upper quadrant ) , and pathology of this lesion in biopsy was invasive ductal carcinoma. Acrometastasis in this case is a first presentation of breast carcinoma.





# Management of breast cancer during pregnancy and review of 23 treated cases in our clinic and Ostad alinasab hospital in tabriz (north west of IRAN).

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Introduction : Breast cancer is one of the most commonly diagnosed types of malignancy during pregnancy .Approximately0/2% to 2.6% of all breast cancer occur during pregnancy (BCP).Many oncologist and obstetricians not have experience or only limited exposure to cancers diagnosed during pregnancy. Breast cancer during pregnancy has been characterized by more advanced disease stage, poorly differentiated tumors that are often estrogen receptor-negative, and delays in diagnosis on the part of patient and physician, assuming breast changes are benign or related to pregnancy. Diagnosis was be made by a combination of ultrasonography, mammography, and/or MRI, followed by core needle biopsy. Modified radical mastectomy is standard care in first trimester, whereas breast- conserving surgery (lumpectomy with lymph node dissection) can be performed preferably in the second or third trimester. Radiation therapy is not favored during pregnancy. Tamoxifen is contraindicated during pregnancy and Aromatase inhibitors are not indicated in premenopausal women. Chemotherapy is generally contraindicated during first trimester because of the possible damage to organogenesis. In the adjuvant and neo-adjuvant and in the advanced/metastatic setting, Anthracycline - based regiments(CA / CAF) remain the best choice, and Docetaxel or Paclitaxel can be administered in pregnancy if necessary. Chemotherapy dosage where equal to those for the nonpregnant patients and were based on body surface area. The use of Trastuzumab (Herceptin) and MTX contraindicated during pregnancy /and Lapatinib and Bevacizumab cannot be recommended during pregnancy. We review 23cases of breast cancer that diagnosed and treated during pregnancy in the north west of Iran (TABRIZ).

**Material and Method :** Between December 1998 to july 2014, 23patients with breast cancer during pregnancy that have been treated as MRM with axillary dissection during pregnancy are referred to our center for adjuvant chemotherapy .The mean age of patients was 33/2years (20-47 years). They all received chemotherapy for 4-6courses in 2th and 3th trimester of pregnancy with CA (in5) or CAF (in 14) or TEC (in 4) regiment in 1th day and GCSF in 2th to 5<sup>th</sup> day of each course of chemotherapy. The last course of chemotherapy was at least 3 weeks before delivery (up to 35<sup>th</sup> weeks of pregnancy ). Depending on the stage and hormone receptor states of tumors, ERT and/or Hormone therapy were given after delivery. The median follow up was 5years (9month to 12 years).

33/2 years. There was seen 2 patients in stage I and 8 in stage II and 12 in stage III and one in stage IV. Lymph node involvement was seen in 68% of cases and greater than 3 lymph nodes in 52% of patients. Vascular and lymphatic invasion were seen in 70% of patients. ER was positive in 53% and PR in 45%, Her2 expression in 43%, P53 in 47%. Severe grade III/IV hematologic toxic complication of chemotherapy is developed in 4 patients and neutropenic sepsis in 2cases (with out mortality).All 23 babies were delivered alive and near normal without any malformation, 9 babies with mild low birth weight. Due to 5 years follow up 5 patients were died and far metastases and loco regional recurrence are developed in 30% of patients, and 5 years survival were seen in 75% and 5 years DFS in 65% of patients .

**Conclusion:** Breast cancer during pregnancy needs special attention. Delayed diagnosis and its aggressive growth behavior du to biologic effects of pregnancy, diagnostic and therapeutic limitations during pregnancy like impossibility of doing bone scan, radiation and hormone therapy in all trimesters makes its management different somehow difficult. Regarding safety of FAC or CA or Taxens chemotherapies for mother and fetus





from the second trimester of pregnancy ,it is suggested for the patients that need any form of chemotherapy for breast cancer during pregnancy .

Key words: breast cancer, pregnancy, treatment





ROLE OF OVARIAN SLEEP WITH GnRH ANALOGS DURING CHEMOTHERAPY FOR FERTILITY PRESERVATION IN YOUNG PATIENT (UP TO 40 YEARS) WITH BREAST CANCER(STUDY OF 54 PATIENTS IN OSTAD ALINASAB HOSPITAL AND OURE CLINIC IN TABRIZ) .

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Background :Breast cancer is the commonest malignant disease in women and up to 20% of this cases in west world (Near to 50% Iran ) have less than 50years old (Pre menopause ). Premature ovarian failure (POF) is a common toxicity of chemotherapy. For reproductive age women, a large number of whom have either not contemplated or not completed their families, the diagnosis of breast cancer poses fertility concerns. Advances in breast cancer care , including early diagnosis and aggressive chemotherapy ,have improved the life expectancy for young women ;and have necessitated an increased emphasis on issues of survivorship, including family planning. The reported incidence of amenorrhea after systemic therapy for breast cancer varies widely, and is related to age , type, and cumulative dose of administered chemotherapy, and reserve of ovaries and probably time of cycles during chemotherapy. The incidence of permanent amenorrhea following systemic therapy for breast cancer ranges from 33% to76%.

Methods: Premenopausal patients with age up to 40 years with stage I-III ER/PR\_ breast carcinoma to be treated with chemotherapy (CA OR TEC) with or without GnRH analogs started 10 day prior to the first chemotherapy dose(q28day up to 2weeks after later course of chemotherapy). The primary endpoint is2/5 years POF defined as amenorrhea for the prior 6months and post –menopausal FSH level .

RESULTS: 54patients with mean age 35years (19-40), 28 patient in group I (Cytoxan +Adriamycin orCA +GnRHa) and 26 patient in group II (TAXENS+EPIRUBICINE+CYCLOPHOFAMID or TEC + GnRHa) are studied, After 6month of last course of chemotherapy normal FSH and menses were seen in 46% and 35%, and after 12 month in 76% and62%, and after 18month in86% and 73% and after 24 month in 93% and 85% and after 30 month in96/5% an92%. In control group of patient (54cases) normal FSH and menses seen in 31%, 61%, 72% 80%, and 84%. After 2/5 years, premature menopause were seen in 3/5% in CA- GnRHa, 7/5% lin TEC-GnRHa, 16% in control groups.

CONCLIUSION : Administration of GnRHa analog with chemotherapy was associated with less POF and premature menopause, and we recommended this form of adjuvant therapy in young patients with breast carcinoma.





## Molecular Mechanisms of Melatonin anti cancer activity in breast cancer mini review article

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#### Summery

Melatonin is a natural hormone in body that produced mainly by the pineal gland at darkness .Melatonin secretion decreases with aging, The researchers showed that there is a low incidence of breast cancer in blind women, and an inverse relationship between breast cancer incidence and the visual impairment caused to pay more attention to melatonin as an effective agent duo to breast cancer, but why and how melatonin acts? The purpose of this review is orientation with different molecular mechanisms of melatonin function in prevention and treatment of breast cancer.

To open access the articles we searched valid databases, first we determined mean key words, then identified equivalent terms and with use of appropriate operators, the formula was developed. At least, we selected articles about · molecular action of Melatonin in breast cancer and based on, the review was done.

The results indicated that melatonin acts as a strong anti oxidant that prevents DNA against free radicals and carcinogens also protects it from damage. This hormone activates immune system by stimulate killer cells. In cellular functions, melatonin effects on breast cancer cells through MT1 receptors, the studies indicated that melatonin decreases the activity of estrogen receptors , increases the transcriptional activity of RAR alpha, inhibits MAPK cell signaling pathways , activates apoptosis through increases Bax expression, decreases the activity of ROR alpha , melatonin through decreases in SIRT1(Sirtuin1), activates PER1 and PER2 ,Period genes that produced period circadian protein , .melatonin has an anti metastatic effect through inhibit the P38 MAPK signaling pathways, so stop proliferation. In addition, telomerase activity is observed in 85%–90% of all cancers, melatonin has an anti telomerase activity.

**Conclusion:** due to the safety of melatonin and the wide molecular actions of it on breast cancer ,it seems that melatonin can be consider in programming and writing the guidelines to prevent and help to the treatment of breast cancer.

Key words: molecular mechanisms, breast cancer, melatonin





Comparison of clinicopathologic appearance and 5years survival of breast cancer in young (less than 40years) and less young (40-50 years) women in Ostad Aalinasab Hospital in north west of IRAN (TABRIZ).

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#### Abstract :

**Background:** Up to 7% of breast cancer cases occur in women younger than 40years in west world (greater than 25% in IRAN).Studies have suggested an association between breast cancer at a young age, poorer outcome, and adverse clinical and pathologic characteristics. It is unclear whether age is an independent prognostic factor.

**Objectives:**To characterize the prognostic significance of young age at diagnosis through comparison of disease characteristics of young (less than 40 years) and less young (40-50 years old) premenopausal patients.

**Methods:**Consecutive patients with breast cancer up to 50 years old in time of diagnosis, treated in Ostad Aalinasab hospital and our provide clinic in north west of IRAN (TABRIZ) between October 2002-november2014were identified and their files reviewed(658 patients). This cohort was identified as young (less than 40years old or group I=319 patients) and was compared with a group of less- young (40-50 years old or group II=339) patients. The clinicopathologic characteristics and survival data were compared.

Results: Mean age were 35/2 years in group I (19-39years) and 46years in group II (40-50years). The form of pathology in group I were invasive intra ductal carcinoma in 83% and basal like in 7% and invasive intra lobular carcinoma in 8% and other type in 2% of cases, but in group II ,85% invasive intra ductal and 5% basal like and 8% intra lobular and 2% other type. In group I, 24% were multifocal tumor but 15% in group II . The size of tumor or T in group I were 18% T1 and 47% T2 and 27% T3 and 8% T4 but in group II , T1 in 28% and T2 in47% and T3 in 20% and T4 in 5% were seen. Grade of tumors in group I were G3 or high grade in 68% and G2 in 19% and G1 in 13%, but in group II , G3 in 50% and G2 in 35% and G1 in 15%. Lymphovascular invasion was seen in 63% of group I but in 46% of group II. Axillary lymph node involvement was seen in 59% of group I but in 44% of group II. Stage of disease in the time of diagnosis group I were (20% stage I, 49% stage II, 21% stage III, 10% in stage IV) but in group II were ER+, 52% of patients in group I and 59% in group II were PR+.Her2 expression were seen in 31% of group I but in 21% of group II. 30% of patients in group I but 17% in group II were triple negative. Median follow up of patients in two groups after treatment was 60 month. Five years survival in very young patients was76%.but 84% in group II.





**Conclusions:** young age(less than40 yo) among Iranian women with breast cancer is associated with higher stage at diagnosis, adverse pathologic characteristics (high grade, lymphatic and vascular invasion, ER negativity, triple negativity, and...) and adverse outcome when compared with less young patients (40-50yo), but probably age is not an independent prognostic factor for survival.





# **Evaluation of Silibinin Toxicity on Breast Cancer Cell line MCF-7**

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**Introduction:** Given the prevalence of breast cancer, Mortality of patients and the public easy access to the herbal extract of milk thistle, We decided to examine the effectiveness of this plant on breast cancer cell line, MCF-7.Silibinin, a naturally occurring flavonoid antioxidant found in the milk thistle, has recently been shown to have potent anti-proliferative effect against various malignant cell lines.

**Materials and methods:** In the present study, MCF-7 cells were incubated with various concentrations of silibinin for different times and survival rate and proliferation of cells after 12, 24 and 48 hours was evaluated by MTT assay.

**Results**: The results show that Silibinin have significantly toxic effect on MCF-7 cell line. (P<0.001). So that, Silibinin decreases cell viability in a dose and time-dependent manner.

Concentration 200µl of silibinin and in 48 hours had the best effect on the viability MCF-7 cells.

**Discussion and Conclusion**: Considering to Silibinin effect on inhibiting cell growth, it could be Effective Preventer factor in the development and progression of cancer.

Key words: breast cancer, Silibinin, MTT assay





#### Exercise interventions for patients with breast cancer related lymphedema

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Background and aims: Lymphedema following breast cancer surgery remains a common and feared treatment complication. The aim of this study was to find high level evidences(systematic reviews) about the role of exercise interventions in prevention and treatment of breast cancer related Lymphedema.

**Methods**: We searched Pubmed and Cochrane databases from beginning until 2015-01-01 for English language systematic reviews related to Exercise interventions for breast cancer related Lymphedema .Keywords are lymphoedema, breast cancer and exercise.

**Results**: We found six systematic reviews (one in Cochrane and five in pubmed database). The quality of the primary RCTs in the included systematic reviews was variable. According to the findings of these reviews, early rather than delayed onset of exercise training did not affect the incidence of postoperative lymphoedema, but early introduction of exercises was valuable in avoiding deterioration in range of shoulder motion. Strong evidence is now available on the safety of resistance exercise without an increase in risk of lymphedema for breast cancer patients. No exacerbation of objectively measured or subjectively reported lymphedema symptoms was reported with upper body progressive resistance training with or without aerobic training. In one review, it was concluded that the literature contains no evidence to suggest the most effective treatment for secondary lymphedema. In other review, self instigated therapies such as compression garment wear, exercise and limb elevation yielded smaller reductions in arm lymphedema than the more intensive and health professional based therapies, such as complex physical therapy, manual lymphatic drainage, pneumatic pump and laser therapy.

**Conclusion**: Although early exercise in the post-operative period may not prevent of postoperative lymphoedema, early implementation of exercises for prevention of loss of shoulder range of motion is important. Further high quality research studies are needed.

Keywords: are lymphoedema, breast cancer, exercise





## بررسی ارتباط مصرف ماهی و خطر سرطان پستان

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## چکیدہ:

**زمینه و هدف**: مطالعات اپیدمیولوژیکی زیادی نشان داده اند که روغن ماهی به علت داشتن اسیدهای چرب بلند زنجیره امگا- ۳ موجود در ماهی، در برخی حیوانات خطر ایجاد تومور را کاهش می دهد. پژوهش حاضر یک مطالعه مورد- شاهدی است که به منظور تعیین ارتباط مصرف ماهی و خطر سرطان پستان انجام شده است.

روش بررسی: این پژوهش به صورت تحلیلی گذشته نگر بر روی ۱۹۷ زن مبتلا به سرطان پستان مراجعه کننده به مراکز شیمی درمانی بیمارستان های گلستان و شفا در شهرستان اهواز (مورد) و ۱۹۷ زن سالم مراجعه کننده به مرکز رادیولوژی شهرستان اهواز جهت ماموگرافی (شاهد) انجام شد. ابزار مورد استفاده پرسشنامه دموگرافیک، پرسشنامه عوامل باروری و مؤثر بر سرطان پستان و پرسشنامه تغذیه ای بود. شرکت کنندگان در پژوهش از طریق پرسشنامه ها از لحاظ عوامل مؤثر بر سرطان پستان و همچنین مصرف ماهی در سال قبل از بیماری شان مصاحبه می شدند. از آزمون آماری مجذور کای جهت متغیرهای کیفی و آز آزمون من ویتنی تست جهت بررسی متغیر سن استفاده شد، سپس از مدل رگرسیون لجستیک جهت تحلیل نهایی داده ها استفاده شد.

یافته ها: میانگین و انحراف معیار سن در دو گروه مورد و شاهد به ترتیب۹/۰ ±۴۶/۰ سال و ۴۳/۴۷±۴۳/۴۷ سال بود، ماکزیمم و مینیمم سنی ۲۰–۳۰ سال بود. در تحلیل نهایی ، مصرف میگو(۹/۰۱ (=P و کنسرو ماهی(۹/۰۰۲ ( =P، با کاهش سرطان پستان ارتباط معنی داری داشت، اما میزان مصرف ماهی، روش پخت و نوع ماهی پرورشی و دریایی تفاوت معنی داری نداشت

**نتیجه گیری:** بین مقدار مصرف ماهی ،نوع ماهی، روش پخت ماهی با سرطان پستان ارتباطی یافت نشد.، اما در بررسی گونه متفاوت ماهی ، مصرف میگو و کنسرو ماهی با کاهش سرطان پستان ارتباط داشت.

واژ گان کلیدی: سرطان پستان، مطالعه مورد- شاهد، ماهی.





Induction of apoptosis in human breast cancer cells by Britannin, a sesquiterpene lactone from Inula aucheriana

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**Introduction**: Induction of apoptosis in cancer cells can be a promising treatment method in cancer therapy. Naturally-derived products had drawn growing attention as agent in cancer therapy. The main target of anticancer drugs may be distinct, but eventually they lead to identical cell death pathway, which is apoptosis. The current study was therefore carried out to address the issue if Britannin, a sesquiterpene lactone isolated from Astraceae family, is able to induce apoptosis in the breast cancer cell lines MCF-7 and MDA-MB-468.

**Material and Methods**: Cell viability was determined using the MTT assay. Annexin-V/propidium iodide (PI) staining, Hoechst 33258 staining and caspase-3/9 activity assay was used to indicate that Britannin is able to induce apoptosis in MCF-7 and MDA-MB-468 cells.

**Results**: we indicated that Britannin have antiproliferative activity on the MCF-7 and MDA-MB-468 human breast cancer cells. Annexin-V/propidium iodide (PI) staining, Hoechst 33258 staining and caspase-3/9 activity assay confirmed that Britannin is able to induce apoptosis in MCF-7 and MDA-MB-468 cells.

**Conclusion**: Taken together, these results suggest that Britannin inhibits growth of MCF-7 and MDA-MB-468 breast cancer cells and may potentially serve as an agent for breast cancer therapy.

Key words: Britannin, Sesquiterpene lactone, Apoptosis, Breast cancer cell lines





## Effect of injecting AuNPs on performance of AccuBoost brachytherapy system in patients with early-stage breast cancer using Monte Carlo method

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#### Abstract

**Introduction:** The AccuBoost system is a novel technology to employs a conventional mammography unit, a computed radiography (CR) system, and a <sup>192</sup>Ir-HDR brachytherapy source remote afterloading system to deliver noninvasive image-guided breast brachytherapy (NIIGBB). This study investigates, for the first time, the dose enhancement to breast tumors due to gold nanoparticles (AuNPs) during noninvasive image-guided breast brachytherapy. The objective was to determine whether gold nano particles (AuNPs) were appropriate for macroscopic dose enhancement (MDE) in AccuBoost system. In order to make this distinction, The MCNPX Monte Carlo code was used to simulate this system with AuNPs.

**Materials/Methods:** The <sup>192</sup>Ir-HDR brachytherapy source and a pair of non-invasive round tungsten applicators was positioned on opposite sides of a compressed breast phantom to simulate a clinical geometry. A tumour region for a range of depths with a size of 1×1×1 cm<sup>3</sup> loaded with AuNPs were simulated inside of ICRU 44 breast phantom. The dose enhancement factor (DEF) defined as the ratio of the dose with and without AuNPs was calculated in the presence of AuNPs with 10, 20 and 30 mg/ml concentrations, separately with sizes of 50, 100 and 200 nm inside the tumor volume. Then, DEF was averaged over various cubic cells in the tumor on the central axis of the beam and the average value was reported. Among the three mentioned concentrations, the dose enhancement related to 30 mg/ml is higher.

**Results:** In this study, possible tumour dose enhancement by the use of gold nanoparticleswas estimated by Monte Carlo calculations. Our preliminary results indicate that major dose enhancement to breasts tumors can be achieved using AuNPs. We found a DEF of from 1.3 to 2.79 for 36 number of <sup>192</sup>Ir-HDR source beams.The effect of AuNP size was not considerable, but the AuNP concentration had a substantial impact on achieved DEF in AuNP-based brachytherapy.

**Conclusion:** The data demonstrate that the biological effect when irradiating in the presence of 30 mg/ml concentration of AuNP is about 30%–180% greater than without AuNP. Meanwhile, without radiation, the AuNP showed minimal effect on the cancer cells. These findings provide evidence that AuNP may be employed





as radiosensitizers during noninvasive image-guided breast brachytherapy also highlight a potential new approach for radiation boosting to breast tumors using AuNPs.

Key words: AccuBoost brachytherapy, <sup>192</sup>Ir-HDR, Breast cancer, AuNPs





## **Comparison of MRI and Pathologic Findings in Patients with Breast Complaints**

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## **Introduction:**

Breast cancer is one of the most common cancers among women. The primitive diagnosis of breast carcinoma is based on mammography using X-Ray with variable result of 60-90% sensitivity and 10-40% Specificity. Due to low Specificity, it may lead to unnecessary biopsy. Magnetic resonance imaging (MRI) compare to mammography enjoys the most sensitivity and specificity in diagnosing cancer pathology. However MRI is not still used as a routine method regarding high cost, limited accessibility and other factors. The aim of this study was identifying relationship between MRI and pathology results.

## Materials and methods:

This was a cross-sectional study from January 2009 to 2010 in Athary Radiography center. The patients with Breast Imaging-Reporting and Data System (BI-RADS) 3, 4, 5 with no chemotherapy or biopsy before MRI were allowed to enter the study. In general 139 pathology from 98 patients were studied. Data were analyzed with SPSS 18.0 statistical software.

## **Results:**

In pathology study there were 24cases (17.4%) malignant samples and 114 cases (82.6%) benign samples. In most of the pathology samples BI-RADS 4 was observed. In analyzing BI-RADS and pathology a significant relationship was observed (p=0.5551). There was the most relationship between descriptor and pathology of size, shape and internal enhancement.

## **Discussion:**

Magnetic resonance imaging (MRI) is a specific non-invasive technique which doesn't involve any radiation exposure and can detect breast lesions sometimes missed by mammography and clinical examination at the time of the initial breast-cancer diagnosis with low false positive results. It can be useful in gathering more information about suspicious area or already confirmed to be cancerous.

## **Conclusion:**

BI-RADS have a high predictive value in diagnosing breast cancer. Span of MRI descriptor diagnosis involves abroad field of sensitivity.

Key word: MRI- Pathology-Breast Cancer-Lesions





## Evaluation of anti-cancer activity of new COX-2 inhibitors in an invivo model of breast Cancer

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**Introduction:** Breast cancer is the second leading cause of death as a result of cancer among women, accounting for approximately 40,000 deaths each year. Current chemotherapy is unable to obtain clinical responses in patients with highly invasive metastatic disease. Therefore, there is an essential need for more effective approaches to prevention and treatment of breast cancer. An excellent currently available model of breast cancer is the BALB/c-derived 4T1 tumor. Cyclooxygenase-2 (COX-2) is a rate-limiting enzyme in the synthesis of prostaglandins. It is over-expressed in multiple cancers and has been associated with metastasis. In this study, the antitumor growth of celecoxib [a selective cyclooxygenase-2 (COX-2) inhibitor] as well as two new COX-2 inhibitor derivatives (**A** and **B**) were investigated in a murine mammary cancer model.

**Materials and Methods:** Mice bearing mammary tumors, developed after inoculation of BALB/c mice with a mammary carcinoma cell line (4T1,  $5 \times 10^5$ ), were treated with celecoxib and compounds **A** and **B** at 20 mg/kg (i.p) five times a week for four weeks.

**Results:** Tumor volumes were significantly reduced in mice receiving 20 mg/ Kg of celecoxib and compounds **A** and **B** after 4 weeks. By the end of the experiment, the average tumor volume in control animals was  $1002\pm49.27$  mm<sup>3</sup>, while those for mice receiving celecoxib, compounds **A** and **B** were  $183.5\pm49.50$ ,  $475.3\pm49.50$  and  $623.6\pm139.9$  mm<sup>3</sup>, respectively.

**Conclusion:** These studies suggest that celecoxib as well as compounds **A** and **B** can be good candidates for treating breast cancer. However compound **A** is more effective than compound **B**. **Keywords :** Breast cancer, Balb/c, COX-2, 4T1 Cell





P6-11 بررسی عملکرد کمپلکس دارویی پاکلی تاکسل - پلیاتیلن گلایکول در مرگ سلولهای آدنوکارسینومای سرطان پستان

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## چکیدہ:

مقدمه: پاکلی تاکسل(PTX) ازجمله داروهای ضد سرطان است که در مقابل طیف وسیعی از تومورهای انسانی کاربرد دارد. از معایب داروی تاکسول میتوان به طبیعت آب گریز و انحلال پذیری کم دارو در آب اشاره کرد که منجر به واکنش های آلرژیک شدید پس از تزریق داخل وریدی می شود. هدف از این مطالعه سنتز ماکرو مولکول های پیش داروی محلول در آب PTX است. مواد و روش ها: کمپلکس پلیمری زیست ساز گار پلی اتیلن گلایکول(PEG) همراه با داروی ضد سرطان PTX به روش شیمیایی طراحی و ساخته شد. موردبررسی FTIR، پروفیل رهایش دارو و مرگ سلول های آدنوکارسینومای(MCF7) سرطان پستان قرار گرفت.

یافته ها و بحث: بررسی های FTIR حضور پیوند بین گروه های آمینی PEG و گروه های هیدروکسیل فعال شده PTX را تائید کرد. همچنین بازده انکپسولاسیون سامانه طراحی شده ۲/۷ ± ۶۹/۱۶٪ در سیستم های انکپسولاسیون سامانه طراحی شده ۲/۷ ± ۶۹/۱۶٪ در سیستم های آهسته را فزایش پایداری کمپلکس PEG-PTX در سیستم های آهسته رهش از طریق افزایش آبدوستی را نشان داد. بررسی های سلولی MCF7 نیز تأثیر کشندگی سلول های سرطانی مشابه PTX آزاد بود که نشان دهنده عدم تنیر ساختاری دارو در کمپلکس PTX آزاد بود که آهسته رهش از طریق افزایش آبدوستی را نشان داد. بررسی های سلولی MCF7 نیز تأثیر کشندگی سلول های سرطانی مشابه TX آزاد بود که نشان دهنده عدم تنییر ساختاری دارو در کمپلکس دارویی است.

بحث و نتیجه گیری: به طور کلی یافته های این پژوهش حاکی از پتانسیل درمانی مناسب برای از بین بردن سلول های سرطان سینه انسان را دارد.

**کلمات کلیدی:** پلیاتیلن گلایکول، دارویی پاکلی تاکسل، سرطان پستان، سامانه های رهایش دارو





## Assessment of flatness and Symmetry of intraoperative radiotherapy beam fields by radio chromic EBT-2 films

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**Introduction**: Symmetry and flatness tests should be done by using suitable 3D motorized water phantom or appropriate radio chromic films and slab phantoms. The aim of this work is to check symmetry and flatness of Intraoperative Radiotherapy (IORT) fields by using EBT-2 films and beam profiles at 6,8,10 and 12 MeV.

**Methods and materials**: Four pieces of EBT-2 films cut into  $10 \times 12.5 \text{ cm}^2$ . Then films were scanned before and after irradiation. EBT-2 films put in reference condition (applicator 10 cm and  $0^0$  angel) and between vertical slab systems. Then, films irradiated in four energies 6, 8, 10, 12 MeV, separately. After irradiation, by using MATLAB software and selection of appropriate pixels can draw profiles. Flatness aria is in 80% filed size. Flatness and symmetry were obtained by special formulas. For assessment of flatness, maximum and minimum dose must be achieved and for analyzing symmetry, dose in corresponding points in central axis in profile should be measured.

**Results**: Flatness for 6, 8, 10,12MeV energies were measured 3.6, 3.2, 1.7 and 2.9, respectively. Also, symmetry measurement in order for above energies were obtained 1, 1, 0.9, and 0.9.

**Conclusion**: absorbed dose variation inside the 80% of the field size (50% isodose) must be less than 3%. In our results, flatness was acceptable for all energies (just for 6, 8 MeV a little is bigger than 3%). Also, maximum absorbed dose between points equidistant from central beam axis, inside the 80% of field size must be less or equal 3% and our measurements of symmetries were equal or under 1%. Symmetry and flatness of IORT beam fields seems acceptable and reliable for all energies and it is appropriate for treatment condition.

Key words: symmetry, flatness, intraoperative radiotherapy, radio chromic EBT-2 films.

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# $${\rm P6-06}$$ Title: The role of prolactin and growth hormone in breast cancer .

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#### Introduction:

Much attention has previously been focused on circulating levels of GH/PRL in relation to mammary tumor formation. It will review data demonstrating that these ligands also could be produced locally in different organs, including the mammary gland and mammary tumors, and suggest that this local production may be of importance for pathological conditions.

Materials and Methods:

This is review article that were identifical, by computer search of medline (1999-2014)

#### **Results:**

A crosstalk between GH- and PRL response is possible at multiple levels. In the human, GH can activate both the prolactin receptor (PRLR) and the growth hormone receptor (GHR). We have demonstrated that activation of the PRLR, but not the GHR, is inducing mammary tumors in transgenic mice. Furthermore, the elevated levels of insulin-like growth factor 1 (IGF-I) seen in the GHR activating transgenic mice is not sufficient for tumor induction. The induced tumors express functionally active prolactin that could be of importance for the tumor formation. Paracrine/aurocrine stimulation by PRL may be more important than PRL transported via the circulation.

## **Conclusions:**

In women, the role for stimulation of the PRLR and/or the GHR in mammary tumor formation has not been proven although experiments from primates suggest that the PRLR could be of importance. A more focused analysis to study local production of GH and/or PRL in relation to mammary tumors in women can be very productive.

Key words: growth hormone, prolactin, breast cancer





The effects of hydro alcoholic extract of sage (Salvia officinalis L.) leaves on cultured mouse breast cancer cells

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#### Abstract

Salvia officinalis L. (sage) is one of the herbs with anti-proliferative, cytotoxic and anti-carcinogenesis effects which turn it into one of the candidates in cancer therapy. In this study, the effects of sage hydro alcoholic extract on mouse breast cancer cell line (4T1) were examined. Cultured cells were treated with different concentrations (0, 10, 50, 100, 500, 1000 and 10000  $\mu$ g/ml) of Sage hydro alcoholic extract for 24 hours. Cell viability, chromatin condensation and apoptosis induction were determined using Neutral Red, Aniline Blue and Acridine Orange/Ethidium Bromide staining, respectively. Bax and Bcl2 genes expression were measured using Reverse transcriptase PCR. Following treatment with sage extract, decrease in cell viability and increase in chromatin condensation were observed in a dose dependent manner. Most cultured cells were in the early stages of apoptosis in 50 and 100  $\mu$ g/ml and in the late stages of apoptosis in 500  $\mu$ g/ml of the extract. While Bax expression was increased with up to 50  $\mu$ g/ml of sage extract, no significant change was observed in the levels of Bcl2 expression. Altogether, these findings demonstrate the cytotoxic and pro-apoptotic effects of sage hydro alcoholic extract on mouse breast cancer cell line through increase in Bax/Bcl2 ratio (apoptotic index).

Keywords: Apoptosis, Cell culture, Mouse breast cancer cells (4T1), Sage (Salvia officinalis L.).





# Effect of 6 months aerobic training on plasma leptin levels as a breast cancer risk factor in postmenopausal women

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#### Abstract

Introduction: Physical activity is a well-known modifiable behavior for reducing breast cancer risk in postmenopausal women. However the underlying mechanisms are unknown. This study investigated how 6 months aerobic physical exercise can change leptin level, as a breast cancer risk factor, in postmenopausal women.

Methods: This study was a randomized controlled trial. The study Participants were ages 50 to 74 years, sedentary and postmenopausal that randomly allocated to exercise or control group. Participants in intervention group engaged in aerobic exercise for 3 days per week for 6months, at 70-80% of maximum heart rate. Blood sampling was taken at baseline and after 6-months. Plasma concentration of leptin was assessed using ELIZA kit. Intention-to-treat analyses were performed using independent-sample T test.

Result: We had 41 women (19 in control and 22 in exercise group) at baseline and 27 women at 6 months (14 in control group and 13 in exercise group). Average age and BMI of participants were  $54.5\pm5.8$  and  $27.9\pm3.2$  respectively. Plasma leptin decreased 0.6% in exercisers and increased 8.2% in controls, although the exercise effect was not statistically significant (p value=0.08).

Discussion and conclusion: leptin levels slightly decreased in exercisers but increased in control group. Thus, regular aerobic exercise might decrease breast cancer risk in postmenopausal women through decreased leptin levels.

Key words: aerobic exercise, leptin, postmenopausal, breast cancer





## Determining pattern of metastasis and prognostic factors in breast cancer using conditional regression model (PWP)

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## ABSTRACT

**Introduction:** identifying the risk factors for metastasis is major concern for treatment processes of cancer patients. Metastasis makes patients frail and increase hazard of death. It also decreases physical and psychological quality of life of patients. Aim of this study is determining of prognostic factors for metastasis of breast cancer using conditional regression model.

**Materials and Methods:** in this survival study, hospital records of 246 women with breast cancer who underwent surgery and treatment at hospital Fayyazbakhsh were used. Patients were followed and their final situations recorded until 2012 May. Metastasis free survival estimated with Kaplan-Myier method. To determine the prognostic factors, a conditional regression model called PWP fitted. All statistical analysis was conducted with R software.

**Results:** 202 patients (82.1%) were alive until follow up and 44 patients (17.9%) died.54patients experience metastasis. 11 patients (4.7%) had two metastases. Most of metastases were shown in bone, liver, lung and brain. Median metastasis free survival (MFS) estimated 64 month. One, two and three year MFS were 88%, 80.1% and 76.6%, respectively. Lymph node involvement and HER2 were shown as prognostic factors for metastasis. Age, Estrogen Receptor, Progesterone Receptor, Grade and tumor size variables were not significant (P> 0.05).

**Conclusions:** number of lymph nodes involvement as a prognostic factor involve more nodes and increase risk of metastasis and death. Thus prognosis and treatment of cancer in early stages increase survival of patients.

Keywords: Breast cancer, Metastasis, Metastasis free survival, Conditional model.





## Sexual functioning after mastectomy surgery- A qualitative study

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## Abstract

**Background:** In many culture, breasts is a symbols of femininity, motherhood, beauty and sexual attractiveness that loss and deformity it's may lead to adversely affect the sexual life. The objective of present study was to understanding sexual functioning after mastectomy surgery in breast cancer survivor. Material &method: This study was a qualitative design. Semi- structured interview conducted with 11 Iranian women surviving breast cancer (mean age 44/5 years; mean age of husbands 47/8 years; median length between surgery and interview 2/8 years). Result: Analysis using the Colaizzi method revealed four major themes: (1) dyspareunia, (2) hesitation in resuming sex after mastectomy surgery, (3) decrease the frequency and quality of sex, and (4) sexual considerateness. Conclusion: This study shows the changes to sexual functioning following mastectomy surgery. In addition, understanding and cognition about sexual life among breast cancer survivor will help improve survivor's sexual wellbeing. The finding this study helps to mental healthcare professionals to design appropriate interventions to improve survivor's sexual life.

Key words: breast cancer, sexual functioning, mastectomy, Iran





#### Impact of nutrition on breast cancer incidence

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#### Introduction:

Breast cancer incidence is rising worldwide with an increase in aggressive neoplasias in young women. Possible factors involved include lifestyle changes, notably diet that is known to make an impact on gene transcription. However, among dietary factors, there is sufficient support for only greater body weight and alcohol consumption whereas numerous studies revealing an impact of specific diets and nutrients on breast cancer risk show conflicting results. Also, little information is available from our country.

**Result**: The diversity of gene expression profiles found in breast cancers indicates that transcription control is critical for the outcome of the disease. This suggests the need for studies on nutrients that affect epigenetic mechanisms of transcription, such as DNA methylation and post-translational modifications of histones. In the present review, a new examination of the relationship between diet and breast cancer based on transcription control is proposed in light of epidemiological, animal and clinical studies. The mechanisms underlying the impact of diets on breast cancer development and factors that impede reaching clear conclusions are discussed. Understanding the interaction between nutrition and epigenetics (gene expression control via chromatin structure) is critical in light of the influence of diet during early stages of mammary gland development on breast cancer risk, suggesting a persistent effect on gene expression as shown by the influence of certain nutrients on DNA methylation.

**Conclusion:** Successful development of breast cancer prevention strategies will require appropriate models, identification of biological markers for rapid assessment of preventive interventions, and coordinated worldwide research to discern the effects of diet.

Keyword: nutrition, breast cancer, incidence





The effectiveness digital mammography compared to the analog mammography for breast cancer diagnostic and screening: systematic review

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Abstract

Background: Breast cancer is the most common cancer among women and one of the leading causes of death in the productivity ages. Mammography screening is the main method for the diagnosis of breast cancer. While analog mammography counts as the standard method of screening, the digital can be an alternative. This review compared the effectiveness and safety of the technologies.

Method: In order to collect evidence about the effectiveness of analog and digital mammography a systematic review of diagnostic accuracy studies within 1990 to March 2014 was conducted. The most relevant databases including Abstracts of Reviews of Effects (DARE), NHS Economic Evaluation Database (NHS EEDs), Cochrane Database of Systematic Reviews, TRIP, PubMed and Medline. The key words included mammography and its roots. After identification of appropriate studies the quality was evaluated with QUADAS and meta-analysis was used for extracted data pooling.

Results: From 35,284 related study, 166 were selected after after topic review. Then by removing duplicates and abstract or full paper review, 13 studies were selected for analysis. The quality of 9 studies was good and the rest were at average range. Meta-analysis revealed that the sensitivity of analog and digital mammography in women under 50 years were 0.61 and 0.81 respectively.

Conclusion: Owing to digital mammography's higher sensitivity and regarding to the increasing prevalence of breast cancer in the Iranian women population, especially in 45-50 and higher safety of digital mammography, we can recommend it, instead of the analog for the screening and diagnosis of breast cancer.

Key word: Digital mammography, analog mammography, effectiveness, screening, breast cancer

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## Breast Cancer Survivor's Experiences: A Qualitative Study

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**Background:** Living with cancer has somatic and emotional impact on women and cause severe complications and challenges in women's life.

**Aim:** The aim of this qualitative study is to explore in-depth recognition of the experience of Iranian women living with breast cancer.

**Method**: This study was conducted with qualitative approach and content analysis. Women who referred to the Center of Omid hospital for receiving chemotherapy due to breast cancer participated in the study. A purposive sampling was conducted. Data collection and in-depth unstructured interviews were carried out. Data collection continued until data saturation. All interviews were taped and recorded and then constant comparative analysis method was used. The MaxQDA software was performed to manage the data.

Results: Four major core themes explaining the women's lived experiences arose from the interviews: including the "expectations", "change" and "fears". Subthems incuding: need to family support, need to social support and spiritual need emerged for expectations; change in role, self perception, values, health perception in changes and fear of dying, frustration and losing the family in fears them.

Conclusion: Awareness of the experiences of women with breast cancer helps them to be able to recognize barriers of the coping process in patients.





## **Futures of Breast Cancer in Iran**

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In the past 50 years and after the development of new drugs for diseases with high mortality rate such as cardiovascular disease, the occurrence rate of cancers was dramatically increased (1). Breast cancer is the second (in Iran Breast Cancer is the first) most common cause of death from cancer in women with 30-60 years old worldwide with diagnosing over 1.6 million cases annually (2). The most important risk factors of Breast Cancer include, mammographic density, age, gender and BRCA1 and BRCA2 carrier status (3). Unfortunately, in the last decade, the incidence rate of this cancer has increased in Iran with a high mortality rate and occurs in at least 10 years younger women by mean age ranging from 47.1 to 48.8 years in comparison of developed countries (4). Overall estimated prevalence of Breast Cancer among Irainian women is 24 per 100000 (5, 6) and new cases of breast cancer in Tehran were reported 1603, 3946 and 4557 in 2000, 2003 and 2004 respectively. According to screening programs, the prevalence rate of breast cancer was reported as 28, 16.9, 12.6 and 7.6 per 100,000 in Golestan province, Kerman, Gilan and Ardebil respectively (5). In developed countries, a significant decreased in death rate from Breast Cancer were reported because of diagnosisat an earlier time, improved surgical and radiotherapytechniques, and enhanced systemic therapies (7). According to various guidelines, population based mammography in asymptomatic women is offered for early identification of Breast Cancer (8) and lack of national program for screening of women for Breast Cancer in Iran is the main cause of increasing clinical Breast Cancer detection and mortality of this type of cancer.





## P5-18

## Evaluation of statins induced cell death in MDA-MB-231 triple negative breast cancer cell line

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## Abstract

Breast cancer is the most common malignancy among Iranian females and more than 36% of the tumors occur in women under 40 years old which are frequently triple negative. In comparison with other types of breast cancer, patients with triple negative tumors have poor prognosis with less response to current therapies. In this study the cytotoxicity of statins were investigated in triple negative MDA-MB-231 cell line. Hence, MDA-MB-231 cells treated with 0.1  $\cdot$ 1  $\cdot$ 5  $\cdot$ 10  $\cdot$ 25 $\cdot$ 50  $\cdot$ 100 µmol of Simvastatin, Lovastatin and Atorvastatin, separately. Cell death induction was assessed using MTT assay after 24 h. EC50 values were estimated using Prism software. All tested statins were able to induce cell death in MDA-MB-231 cells but with different EC<sub>50</sub>. Hence, the highest cell death induction was observed in the cells treated with Lovastatin, but a higher concentration of Atorvastatin is needed to induce the same amount of cell death. There is an expanding numbers of evidence supporting the ability of hydrophobic statins to inhibit the growth of breast cancer cells. It could be concluded that statins provoke cell death in triple negative MDA-MB231 cells and might be a new candidates for in vivo study of breast cancer treatment.

Key words: Breast cancer, triple negative breast cancer, cytotoxicity, statins





#### P6-07 Application of Functional Proteomic in the Diagnosis and Treatment of Breast Cancers

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Breast cancer is the second cause of death from cancer among women. It consists of heterogeneous group of different tumor subtypes that vary in prognosis and response to therapy. Genetic aproaches have provide opportunities in defining the genetic and histological basis of breast cancer, leading to classification and targeted treatment. Despite this, the survival is modest. Cancer is a proteomic disease although genomic information illsuatrate the genetic basis of cancer but proteins do all of the work of the cell and they are the ultimate effector molecule of cellular functions. The genomic approach has some limitations. It does not show posttranslational modification that affects protein function. Currently because of rapid development in proteomic technologies with reproducibility and sensitivity, proteomics can be applied to extract important biological information to aid in understanding the cancer biology. The study of functional proteomics have advantages in related to genomics. At first, it can provide high-throughput analysis of both basal and posttranslational modification of proteins such as phosphorylation and glycosylation of proteins that are important in carcinogenesis and tumor progression of breast cancer. It can provide study of protein-protein interactions and identify of hub proteins, effector and signaling pathways, so leads to move from single-marker/single-pathway study to global study. Functional pathway-based proteomic biomarkers can provide better classification of breast cancer and personalized treatment. For this resean, proteomic technologies like mass spectrometry, isotope labeling with amino acids, reverse-phase protein array (RPPA) and tissue microarray techniques can use. RPPA-based classification will complement gene expression-based classification. It is expected that proteomic approaches can provide opportunities to identify specific and sensitive proteins or biomarkers that could be used in clinical applications.

Key words: Proteomics, Biomarker, Breast Cancer.





# The relationship between involved side and recurrence and metastasis of breast cancer in patients referred to a private oncologic clinic in Mashhad

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## Abstract

Among cancer types, breast cancer is the second most common cause of death in women globally. Breast cancer involvements are seen more frequently in the left side compared to the right side. We aimed to analyze whether the laterality ratio is associated with the disease outcome.

Recorded data of patients who visited an oncologic clinic in Mashhad in a period of 4 years were analyzed and required data including age, gender, involved side, metastasis status, and recurrence were extracted. All collected data were analyzed using SPSS version 21.

The data of 855 patients including 842 females and 13 males were evaluated. Average age of the patients was  $49.70 \pm 0.42$  and median was 48 years. In 52.4% and 46.3% of patients, left or right breast was involved respectively. 1.3% of patients had both breasts involvement. No significant correlation between the involved breast side and either the disease recurrence (p=0.675) or metastasis (p=0.791) was identified.

In contrast to the results of some studies in other populations, our results indicated some of the disease outcomes such as recurrence or metastasis were not related to the tumor laterality of the breast cancer in our population.

Keywords: Breast Cancer, Metastasis, Recurrence, laterality





## P6 - 20

## Histopathologic Characteristics of Breast Cancer in Patients Treated in a Private Oncologic Clinic in Mashhad

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## Abstract

Breast cancer with over 1,600,000 cases in 2014 alone, is the most globally widespread malignancy in women. The purpose of this research is to evaluate several histopathologic characteristics in patients diagnosed with breast cancer who visited a private oncologic clinic in Mashhad.

Medical records of the patients who visited a private oncologic clinic in Mashhad were studied and evaluated for demographics and pathological data. Age, gender, breast cancer type, tumor size, stage of the disease, and the type of hormone receptors were extracted and analyzed.

This study was done on 355 patients with an average age of 48.29. 91.8%, 4.2%, 1.7% and 1.4% of patients were invasive ductal carcinoma, invasive lobular, medullary carcinoma and comedo carcinoma respectively. Most patients, were in stage 3 of the disease (50.8%). Involved lymph nodes were mostly 2-5. 76.9%, 9%, 5.07%, and 4.78% of patients belonged to (HER2+, PR+, ER+), Her2 Type, (HER2-, PR+, ER+), and Triple Negative subgroups respectively.

This study shows that the leading type of cancer in the target population is invasive ductal carcinoma breast cancer type and most patients referred to the clinic were stage 3. Proper education in our population for breast cancer awareness and also implementation of the appropriate screening and diagnostic methods are essential.

Keywords: Breast Cancer, Epidemiologic Study, Demographic Study, Invasive Ductal Carcinoma





# Evaluating the effect of Femara and Tamoxifen on serum lipids in early postmenopausal breast cancer patients.

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## Abstract:

**Introduction:** Treatment of breast cancer as the most common cancer in women is one the important concerns these days. Selective estrogen receptor modulators and type 2 aromatase inhibitor are used in the in the treatment of breast cancer patients. The study was conducted to evaluate the effect of Femara (letrozole) and Tamoxifen on serum lipids in early postmenopausal breast cancer patients.

**Methods:** This was a blind randomized clinical trial study which was performed on 84 menopause women with early breast cancer. Patients were included in 2009-2012 from Asia, Laleh, Javaheri hospitals in Tehran. Patients were randomly divided in Tamoxifen (41 patients) (20 mg/day) and Femara (43 patients) (2.5 mg/day) groups. All patients were followed for 12 months. This study was approved by research committee of Islamic Azad University, Tehran medical Branch.

**Results:** Mean age in Tamoxifen group was  $58.48 \pm 6.56$  years and mean age in Femara group was 56.18 + 5.86 years (P=0.628). Both medications had reduced serum total cholesterol and serum LDL but there was no significant difference between groups (P>0.05). Femara decreased the HDL in 23% and tamoxifen decreased it by 3% (P = 0.001).

**Conclusion:** Our evidence showed that according to Femara properties this drug could be used as an alternative option instead of tamoxifen in breast cancer patients. But according to our small sample size and short term flow up it seems that more randomized clinical trials are needed to confirm the results of this study and evaluate survival in these patients.

Key words: Breast cancer, Femara, Tamoxifen.

## Introduction:

Breast cancer is the most common cancer in women of high-income countries: and over the past 20 to 30 years, data support a trend of increasing incidence and mortality from breast cancer in lower income countries.





Family history of breast cancer and gynecological variables, such as early menarche, late menopause, not bearing children, and late first pregnancy are well established risk factors for breast cancer.

Tamoxifen is a non-steroidal anti-estrogen agent that has already been used as the standard adjuvant endocrine therapy for hormone receptor (HR)-positive breast cancer. Previous studies showed that tamoxifen can significantly improve progression-free survival (PFS) and overall survival (OS). It operates by blocking the estrogen receptors in target tissues and several other biochemical mechanisms, such as estrogen agonistic effects on the endometrium and blood lipids as well as bone preservation. What is more, tamoxifen is the only choice for endocrine therapy of hormone receptor-positive pre menopausal patients.

Letrozole (Femara) is third generation non-steroidal, reversible aromatase inhibitor currently in use for the treatment of advanced and early stage breast cancer in postmenopausal women.

This study was conducted to evaluate the effect of Letrozole (Femara) and Tamoxifen on serum lipids in early postmenopausal breast cancer patients.

## Methods:

This was a blind randomized clinical trial study which was performed on 84 menopause women with early breast cancer. Patients were included in 2009-2012 from Asia, Laleh, Javaheri hospitals in Tehran.

We had included patients who had early postmenopausal breast cancer and we had excluded all patients who did not signed Informed consents.

Patients were randomly divided in Tamoxifen (41 patients) (20 mg/day) and Femara (43 patients) (2.5 mg/day) groups.

Blood samples were allowed to clot at 4°C for 2 h, and then centrifuged at  $2,000 \cdot \text{g}$  for 10 min. The serum was transferred to new tubes for lipid assays. Total serum cholesterol (CH), high-density lipoprotein (HDL) cholesterol, low-density lipoprotein (LDL) cholesterol and triglyceride (TG) levels were measured.

All patients were followed for 12 months. This study was approved by research committee of Islamic Azad University, Tehran medical Branch.

Statistical procedure was done by Statistical Program for Social Sciences software (SPSS) version 18. The significance level (p) was set at 0.05.

## **Results:**

41 patients was included in Tamoxifen and 43 patients were included in Femara group. Mean age in Tamoxifen group was  $58.48 \pm 6.56$  years and mean age in Femara group was  $56.18 \pm 5.86$  years. There





was no statistical differences between groups in age (P=0.628). 35 were married and 6 were widow in Tamoxifen group. 39 were married and 4 were widow in Femara group. There was no statistical differences between groups in marital status(P=0.713).

Mean serum total cholesterol (TC) was  $235.13 \pm 24.46$ , mean high-density lipoprotein (HDL) cholesterol was  $55.47 \pm 12.54$ , mean low-density lipoprotein (LDL) was  $183.32 \pm 26.03$  and mean triglyceride (TG) was  $245.36 \pm 63.56$  in Tamoxifen group at the baseline.

Mean serum total cholesterol (TC) was  $224.13 \pm 19.67$ , mean high-density lipoprotein (HDL) cholesterol was  $58.34 \pm 11.84$ , mean low-density lipoprotein (LDL) was  $171.29 \pm 17.63$  and mean triglyceride (TG) was  $236.29 \pm 54.27$  in Femara group at the baseline.

There was no difference between groups in their lipid profiles at the baseline (P > 0.05)

After one year our results showed that mean total cholesterol (TC) was  $193.67 \pm 23.88$ , mean high-density lipoprotein (HDL) cholesterol was  $52.38 \pm 11.78$ , mean low-density lipoprotein (LDL) was  $145.45 \pm 22.61$  and mean triglyceride (TG) was  $315.31 \pm 43.20$  in Tamoxifen group.

Mean serum total cholesterol (TC) was 182.13  $\pm$  32.25, mean high-density lipoprotein (HDL) cholesterol was 46.73  $\pm$  8.76, mean low-density lipoprotein (LDL) was 142.73  $\pm$  18.37 and mean triglyceride (TG) was 309.32  $\pm$  34.73 in Femara group.

Both medications had significantly reduced serum total cholesterol, serum LDL (P<0.05). but there was no significant difference between groups (P>0.05).

Femara decreased the HDL in 23% and tamoxifen decreased it by 3% (P = 0.001).

## **Discussion:**

Wasan etal in 2012 had reported that Femara had changed the HDL and TG significantly after their trial. But there was no difference in LDL and TC.

Bell et. al had reported in 2009 that Femara had increased LDL significantly after trial but there was no significant difference in HDL.

Goss et.al had reported in 2011 that Femara reduced LDL, TG significantly; TC was reduced after trial but there was no statistical difference between groups. HDL was increased but there was no statistical difference between groups.

Lee et.al had reported in 2010 that Tamoxifen had significantly reduced LDL and TC but it had slightly reduced HDL. TG was increased significantly in their trial.

Parkman et.al had reported in 2012 Tamoxifen had significantly reduced LDL, HDL and TC but it had slightly increased TG.





According to previous studies and our finding there are a lot of controversies about the effect of Femara on serum lipid levels but tamoxifen could reduce LDL and TC. Further review and systematic studies could demonstrate the effect of these medications on serum lipid profiles.





## Perceived social support evaluation in breast cancer patients: a case-control study.

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**Introduction:**Breast cancer is the most common cancer in women and it has a great burden in the society. many psychological and social factors could affect these patients and one of the most factors is patients perceived social support. This study was designed to evaluate patients social support.

**Methods:** This was a case-control study which was done on 140 women who were included in 2011-2012 from Asia hospital in Tehran. 70 patients had breast cancer and 70 were healthy participants. Age was matched between groups. Farsi version of Multidimensional Scale of Perceived Social Support (MSPSS-P) questionnaire was used for social support evaluation in participants.

**Results**: Mean age in breast cancer group was  $52.48 \pm 7.25$  years and mean age in control group was 51.37 + 7.46 years (P=0.783). Mean family support score in case group was  $18.23 \pm 3.12$  and in control group was  $15.48 \pm 3.23$  (P=0.038). Mean friends support score in case group was  $14.87 \pm 2.56$  and in control group was  $15.28 \pm 2.63$  (P=0.648). Mean significant other support score in case group was  $15.58 \pm 2.68$  and in control group was  $14.08 \pm 2.52$  (P=0.738).

**Conclusion:** According to our results patients had a supportive family and this could be because of our traditional and religious culture in Iran. This support could help patients to recover their quality of life. Psychological factors should be considered by surgeons during their treatments for women with breast cancer.

Key words: Breast, Cancer, Social support

## Introduction:

Breast cancer, as one of the most common malignant tumors, threatens the health of many women worldwide. The diagnosis and treatment for breast cancer in women are less than optimal, and they have negative influences on the quality of life. Besides the physical changes, breast cancer can also bring about psychological alterations including anxiety, depression, anger, fear, and uncertainty. Therefore, in practice, the mental health of breast cancer patients needs much more attention. Hope, motivation or energy, encourages patients to realize their goals, and helps patients adapt to the disease and improve their physical and mental health. For patients with cancer, hope is regarded as one of the most important and effective coping style in overcoming the cancer during treatment. Although





researches on the relationships among hope, coping style, and social support in different populations with different scales have been conducted in Western populations, there are some differences in the Western and Eastern populations that demand further scrutiny before these data being applicable to Eastern populations.

Social support is characterized as any combination of emotional, tangible, appraisal, and informational support. Support can be formal, informal, social, professional, structured, or unstructured. It has been recognized for many years that social support is an important factor which may affect the general well-being of individuals living with chronic and life-threatening health conditions like breast cancer. Social support can help women with breast cancer to adjust and cope, and can have positive impacts on the survivor's health. For an individual who has completed treatment, social support can enhance her quality of life and ease her transition into life after treatment. For breast cancer survivors, access to a supportive environment can prevent long-term psychological difficulties and benefit her general well-being.

This study was designed to evaluate Iranian breast cancer patients social support.

## Methods:

This was a case-control study which was done on 140 women who were included in 2011-2012 from Asia hospital in Tehran. 70 patients had breast cancer and 70 were healthy participants. Age and marital status was matched between groups.

We had included patients with positive breast cancer history how were not under went surgery. Informed consents were obtained from all the participants and those who had loss of consciousness were excluded. We also had excluded patients who had history of psychological disorders.

We had used Persian version of Multidimensional Scale of Perceived Social Support (MSPSS-P) questionnaire in this study for social support evaluation.

Persian version of Multidimensional Scale of Perceived Social Support (MSPSS-P) questionnaire had 12 items and was developed by Zimet et al. It measures the perceived support in 3 subscales from family, friends, and significant other (a person with whom one shares a close relationship); each subscale contains 4 questions and each question have a score between 0-6. In this test higher scores show more perceived support. In Farsi version of MSPSSP, Cronbach's alpha coefficient was found to be 0.84 for the whole scale and 0.90, 0.93 and 0.85, respectively for friends, significant others and family subscale in patient sample, and 0.92 for the whole scale and 0.89, 0.92 and 0.87, respectively for friends, significant others and family subscale in healthy sample.

This study was approved by research committee of Islamic Azad University, Tehran medical Branch.

## **Results:**

140 participants were included as 2 groups in this study. Mean age in breast cancer group was  $52.48 \pm 7.25$  years and mean age in control group was 51.37 + 7.46 years (P=0.783). 63 were married and 7 were widow in both groups (marital status was matched between groups).





Education in 46 patients was lower than high school diploma, 19 had high school diploma and 5 participants education was higher than high school diploma in breast cancer group.

Education in 51 patients was lower than high school diploma, 13 had high school diploma and 7 participants education was higher than high school diploma in control group. There was no statistical differences between groups in education (P = 0.618).

Mean family support score in case group was  $18.23 \pm 3.12$  and in control group was  $15.48 \pm 3.23$ . There was a statistical difference between groups (P=0.038). Mean friends support score in case group was  $14.87 \pm 2.56$  and in control group was  $15.28 \pm 2.63$ . There was not a statistical difference between groups (P=0.648). Mean significant others support score in case group was  $15.58 \pm 2.68$  and in control group was  $14.08 \pm 2.52$ . There was not a statistical difference between groups (P=0.738).

#### **Discussion**:

Our results showed that patients family support sub scale was significantly different between groups and these patients have a supportive family.

Yoo et.al had evaluated 110 Chinese participants (55 with breast cancer and 55 healthy individuals) in 2012. They had evaluated social support, depression and anxiety in these patients. They had reported that social support, depression and anxiety was higher in their case group comparing with controls (P>0.05).

They had also divided their case group in to 2 groups according to patients social support results. They had reported that patients who had a better perceived social support had significantly lower depression and anxiety comparing with breast cancer patients who don't have a good social support. Our results are agreed with Yoo findings. We both found that patients with breast cancer had better social support comparing with health individuals.

Kim et.al had evaluated 138 korean patients who had been in cancer treatment at medical clinics in 2010. They had reported that 47.3% reported having had suicidal thoughts and 16.4% had attempted suicide since the diagnosis of cancer. The study participants received most support from family members. The suicide attempt group had significantly higher scores according to gender, age, level of education, diagnosis, treatment modality, level of activity, caregiver and social support compare to the suicide thought group. Suicidal thoughts were negatively related to social support and meaning of life was positively associated with social support.

Den Heijer et. al had evaluated 222 patients with breast cancer in Netherlands in 2011. They had reported that perceived support from friends was indirectly associated with breast cancer-specific distress.

Snyder and Pearse had evaluated 70 younger women diagnosed with breast cancer in 2010 in USA. They had reported that patients had high score in friends and then family support sub scales.





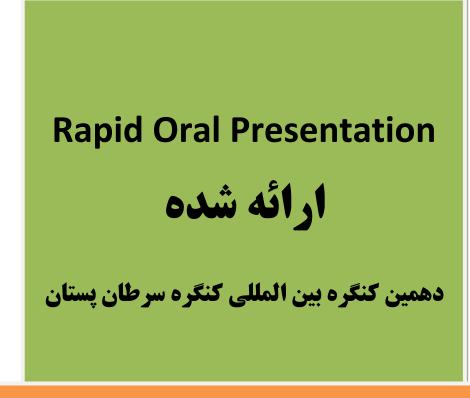
According to these western reports breast cancer patients perceived higher supports from their friends and family support was in the second rank. But according to eastern reports breast cancer patients perceived higher supports from their family.

This difference could be because of differences in cultures between western and eastern countries.

According to our results and other eastern reports breast cancer patients perceived higher supports from their family. In our study This could be because of our traditional and religious culture in Iran. This support could help patients to recover their quality of life. Psychological factors should be considered by surgeons during their treatments for women with breast cancer.







بدیهی است در صورت تمایل به جستجو در مورد Rapid Oral Presentation

این بخش از طریق کلیدهای ترکیبی Crrl+F امکان دسترسی میسر می گردد.





## R2-01

## 5 years study of patients with lactating adenoma and review of the literature

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Introduction: Lactating adenomas are benign breast masses related to physiological changes during pregnancy and increased estrogen level. Fibroadenoma and breast cancer are in the differential diagnosis of them. The purpose of this study was to evaluate cases of lactating adenoma in Breast Cancer Research Center and review of the literature.

**Materials and Methods :**All patients between 2010-2014 with histological diagnosis of lactating adenoma in their biopsy pathology were selected and data were extracted from their medical papers.

**Findings :** In this period of time there were a total of 22 patients with pathology of lactating adenoma. The mean age was 27+4/6.fourteen patients were breast-feeding, 7 patients were pregnant (second and third trimester) and 2 patients had a history of lactation. The chief complaint in 16 patients was mass and in 6 patients was pain.Of 15 ultrasound BIRADS Reports, 8 cases were equal to and less than 3 and 7 cases were equal to and greater than 4.The mean size of masses was 4.1 cm (1.8-8 cm). in 15 patients core Needle biopsy (CNB) and 6 patients open biopsy were performed and 1 vacuum-assisted biopsy were done.In 5 patients excisional biopsy were done in the follow up period after CNB that one of them was invasive ductal carcinoma and other cases were benign.

Discussion and Conclusion : Most masses which are diagnosed during pregnancy and lactation are benign but they are in differential diagnosis with cancer .lactating adenoma occurs not only during breast-feeding but also during pregnancy. Fine needle aspiration is associated with high false positive results and biopsy is the standard diagnostic method, especially sono-guided CNB .Most of these masses will regress after stopping of breast feeding .surgery can be postponed until that time except for suspicious situations.

Key words: Breast mass, lactating adenoma, pregnancy





#### R2-02

# Study Prevalence of BRCA1/2 Common Mutations in East Azerbaijan Province, Iranian Breast Cancer Patients Using High Resolution DNA Melting Analysis

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#### Abstract

Background: Recognition of mutations by DNA sequencing can be simplified by scanning methods to recognize amplicons which may have mutations. Current scanning methods used for the detection of germline sequence variants are difficult as they require post-PCR management. High resolution melting (HRM) is a cost-effective quick screening approach, which readily detects heterozygous variants by melting curve analysis of PCR products. It is well suited to screening genes such as BRCA1 and BRCA2 as germline pathogenic mutations in these genes are always heterozygous.

Materials & Methods: Assays for the analysis of all coding regions and intron-exon borders of BRCA1 and BRCA2 were designed, and optimized. A final set of 50 samples which ran under identical amplification conditions were chosen for BRCA1 and BRCA2. The most common mutations BRCA1 (c.3342\_3345 delAGAA), BRCA1 (c.5406+1\_5406+3 delGTA), BRCA1 ( c.981\_982delAT), BRCA2 (c.3109C.T) were chosen.

Results: We have done an extensive blinded validation of the protocol with 50 separate patient DNAs. All DNAs were analyzed for selected mutations, by HRM technique. According to this result there is no variation between HRM and direct sequencing to mutation detect. Prevalence of selected mutations were 11.2%, 5.5%, 3.4% and 0% for BRCA1 (c.3342\_3345 delAGAA), BRCA1 (c.5406+1\_5406+3 delGTA), BRCA1 ( c.981\_982delAT), BRCA2 (c.3109C.T) respectively.

Conclusion: This is the first HRM attitude to screen the entire coding region of the BRCA1 and BRCA2 genes using one set of reaction conditions using specifically designed primers. The parallel screening of a relatively large number of samples enables better detection of sequence variants. HRM has the advantages of decreasing the necessary sequencing by more than 94%. This evidently reduced cost of sequencing will result in BRCA1 and BRCA2 mutation testing becoming accessible to individuals who currently do not undergo mutation testing because of the significant costs involved.

Keywords: High resolution melting (HRM), BRCA1 and BRCA2, mutation





## R2-03

## Developmental competence of immature oocytes aspirated from antral follicles of ovarian cortex as a method for fertility preservation

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## Abstract

**Background:** Over the last decades, advances in the treatment of women with cancer in reproductive age have markedly increased. In addition, in-vitro maturation (IVM) of immature oocytes collected from excised ovary has been proposed as an attractive option for fertility preservation. The aim was to investigate the developmental competence of immature oocytes retrieved from excised ovarian tissue underwent IVM, as a method for fertility preservation.

**Materials and Methods:** The excised ovarian tissue and biopsies of the ovarian cortex from 26 cancer patients (21- 45 years old), were used. The investigation took place from Dec 2013 to Dec 2014 at Yazd institute for reproductive sciences. Ovaries were obtained directly from collaborating hospitals, and transported to the IVF center on ice. All visible antral follicles on the biopsies were aspirated. The immature oocytes were cultured for 48 h in-house supplemented IVM culture media. Oocyte maturation was assessed by the presence of the first polar body.

**Results:** 61 immature oocytes were aspirated, of which 18 (29.5%) were degenerated and discarded. The remaining 43 (70.5%) healthy oocytes without sign of degeneration underwent IVM technology, of which only 30.2% reached viable metaphase II oocytes. The ovarian tissues of 9(34.6%) women were lacking oocytes at any stage. There was a positive correlation between the recovered number of oocytes and the ovarian volume.

**Conclusions**: Oocytes maturation post IVM from unstimulated ovaries showed a good developmental competence in cancerous patients. Further studies should be performed to advance the oocyte maturation program, such co-culture system, for fertility preservation.

Key words: Fertility preservation, IVM, Immature oocyte, Ovarian tissue.





## R3-18

## Effect of injecting AuNPs on performance of AccuBoost brachytherapy system in patients with early-stage breast cancer using Monte Carlo method

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#### Abstract

**Introduction:** The AccuBoost system is a novel technology to employs a conventional mammography unit, a computed radiography (CR) system, and a <sup>192</sup>Ir-HDR brachytherapy source remote afterloading system to deliver noninvasive image-guided breast brachytherapy (NIIGBB). In this study, for the first time, the dose enhancement to the early-stage breast tumors due to gold nanoparticles (AuNPs) during noninvasive image-guided breast brachytherapy. The objective was to determine whether AuNPs were appropriate for macroscopic dose enhancement (MDE) in AccuBoost system. In order to make this distinction, The MCNP5 Monte Carlo code was used to simulate this system with AuNPs.

**Materials/Methods:** The <sup>192</sup>Ir-HDR brachytherapy source and a pair of non-invasive round tungsten applicators was positioned on opposite sides of a compressed breast phantom to simulate a clinical geometry. A tumor region for a range of depths with a size of 1×1×1 cm<sup>3</sup> loaded with AuNPs were simulated inside of ICRU 44 breast phantom. The dose enhancement factor (DEF) defined as the ratio of the dose with and without AuNPs was calculated in the presence of AuNPs with 10, 20 and 30 mg/ml concentrations, separately with sizes of 50, 100 and 200 nm inside the tumor volume. Then, DEF was averaged over various cubic cells in the tumor on the central axis of the beam and the average value was reported. Among the three mentioned concentrations, the dose enhancement related to 30 mg/ml is higher.

**Results:** In this study, possible tumor dose enhancement by the use of gold nanoparticleswas estimated by Monte Carlo calculations. Our preliminary results indicate that major dose enhancement to breast tumors can be achieved using AuNPs. We found a DEF of from 1.3 to 2.79 for 36 number of <sup>192</sup>Ir-HDR source beams.The





effect of AuNP size was not considerable, but the AuNP concentration had a substantial impact on achieved DEF in AuNP-based brachytherapy.

**Conclusion:** The data demonstrate that the biological effect when irradiating in the presence of 30 mg/ml concentration of AuNP is about 30%–180% greater than without AuNP. Meanwhile, without radiation, the AuNP showed minimal effect on the cancer cells. These findings provide evidence that AuNP may be employed as radiosensitizers during noninvasive image-guided breast brachytherapy also highlight a potential new approach for radiation boosting to breast tumors using AuNPs.

Key words: AccuBoost brachytherapy, <sup>192</sup>Ir-HDR, Breast cancer, AuNPs





# Correlation of Abortion with the Risk of Recurrence and Tumor Size in Breast Cancer Patients

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#### Abstract

**Background:** <u>Breast cancer</u> is the most common cancer in women. Abortion has been suggested as a potential risk factor for breast cancer as it may interrupt the normal cycle of hormones during pregnancy. To date, correlation of abortion with the risk of recurrence and tumor size in breast cancer patients has not been described in Khorasan population.

**Methods** :402 unrelated female breast cancer patients who were referred to the Ghaem Hospital of Mashhad University of Medical Sciences were studied during a period of four years. We investigated the correlation of abortion with the risk of recurrence and tumor size in these patients.

**Results** :The mean age of the patients was  $48 \pm 0.59$  years. Overall, 52.2% of the *patients had experienced* at *least one abortion (ranging one to eight)*. Our results show there is no association between abortion and the risk of recurrence in breast cancer patients (p=0.514). We could also find no association between abortion and tumor size in breast cancer patients (p=0.21).

**Conclusion:** The present *results* confirm previous reports of no statistically *significant correlation* between abortion and the risk of recurrence as well as tumor size in our breast cancer patients.

Keywords: breast cancer, abortion, risk of recurrence, tumor size





### R2-06 Yoga management of breast cancer-related lymphoedema

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**Background**. Breast cancer is the second most common form of cancer in women. In spite of improvements to surgical and radiotherapy treatment, at least 20% of treated women will continue to be diagnosed with breast cancer-related lymphoedema (BCRL) that requires lifelong treatment and management. there is growing evidence to support the use of progressive and supervised exercise for women with BCRL with adequate warm-up, cool-down, appropriate rests and suitable training of staff. This evidence have reported fewer exacerbations of lymphoedema, increased strength, reductions in symptoms, and improvements in QOL. In light of this, research into other holistic interventions, including yoga, for women with BCRL has been recommended. This practices have been reported to improve the psychosocial functioning of women during and after breast cancer treatment and may be transferrable to women with BCRL. The aim of this literature review was to obtain preliminary data to determine the effect of yoga on women with BCRL.

**Materials and Methods:** Database Browser using ISI and Google Scholar, pubmed, Science direct and 30 articles in Medline for the period 2000 to 2014 in this area was accessed. Among the found articles, articles that met inclusion criteria were selected for the present paper were used.

**Conclusion:** The findings of these studies have shown that Yoga intervention did not exacerbate lymphoedema and improved tissue induration of the affected upper arm and the QOL sub-scale of symptoms.

Keywords: Yoga, Breast cancer-related lymphoedema, Symptoms, Quality of life





# Evaluation the Relationship Between Serum Levels of Malondialdehyde and Breast Cancer Risk in Women

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### Abstract

The aim of the present study was to investigate the level of MDA in the serum of patients affected with breast cancer. Changes in the levels of malondialdehyde (MDA) as an indicator of lipid peroxidation (LPO) is important clinically. So that the assessment of MDA levels is used to diagnose pathological conditions, diseases, and cancer. 38 healthy women as control group whit 38 women newly diagnosed whit breast cancer were studied as target group.Healthy subjects age 39/61±0/926 and breast cancer patients were 40/78±0/847 years old. Blood samples from both groups were collected after overnight fasting and after separating the serum they were kept in -70 until day of examination. In this study serum MDA levels were measured using a chemical method. In this study, a significant increase in the levels of malondialdehyde (MDA) as a marker of lipid peroxidation was seen in breast cancer patients compared whit control subjects(p<0.05). According to the results of this study can be concluded that there is a direct relationship between serum levels of MDA with an increased risk of breast cancer and malondialdehyde can be used as a biomarker for the diagnosis of breast cancer.

Keywords: breast cancer- malondialdehyde-lipid peroxidation





# Association study of rs1219648 in FGFR2 and rs1042522 in TP53 with premenopausal breast cancer in an Iranian Azeri population

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#### Abstract

Breast cancer is the most common cancer among women in the world. In Iran, the incidence of breast cancer is on the increase. We studied the association of rs1219648 in FGFR2 and rs1042522 in TP53 and their interaction in development of early onset sporadic breast cancer in Iranian Azeri population to evaluate the proportion of epistatic effect on the risk of breast carcinogenesis.

We genotyped two polymorphisms (rs1219648 and rs1042522) in 100 women with early onset breast cancer and 100 healthy women by PCR-RFLP. Allele frequency differences were tested using chi<sup>2</sup>-test with 95% confident interval.

Our results indicated statistically significant association (P < 0.05) between rs1219648 and risk of breast cancer but rs1042522 was not associated with breast cancer (p > 0.05). We also found that the combination of FGFR2 major genotype and TP53 hetero genotype have protective effect against breast cancer however the hetero allele of FGFR2 in combination with the minor genotype of TP53 was associated with a high risk of breast cancer.

This study revealed an important crosstalk between two polymorphisms in FGFR2 and TP53 in developing breast cancer. These candidates of risk variants can be further evaluated in studies with a larger sample size.

Keywords: early onset breast cancer; FGFR2; TP53; Single nucleotide polymorphism





cultured

#### R2-09

# The effects of hydro alcoholic extract of sage (Salvia officinalis L.) leaves on mouse breast cancer cells

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#### Abstract

Salvia officinalis L. (sage) is one of the herbs with anti-proliferative, cytotoxic and anti-carcinogenesis effects which turn it into one of the candidates in cancer therapy. In this study, the effects of sage hydro alcoholic extract on mouse breast cancer cell line (4T1) were examined. Cultured cells were treated with different concentrations (0, 10, 50, 100, 500, 1000 and 10000  $\mu$ g/ml) of Sage hydro alcoholic extract for 24 hours. Cell viability, chromatin condensation and apoptosis induction were determined using Neutral Red, Aniline Blue and Acridine Orange/Ethidium Bromide staining, respectively. Bax and Bcl2 genes expression were measured using Reverse transcriptase PCR. Following treatment with sage extract, decrease in cell viability and increase in chromatin condensation were observed in a dose dependent manner. Most cultured cells were in the early stages of apoptosis in 50 and 100  $\mu$ g/ml and in the late stages of apoptosis in 500  $\mu$ g/ml of the extract. While Bax expression was increased with up to 50  $\mu$ g/ml of sage extract, no significant change was observed in the levels of Bcl2 expression. Altogether, these findings demonstrate the cytotoxic and pro-apoptotic effects of sage hydro alcoholic extract on mouse breast cancer cell line through increase in Bax/Bcl2 ratio (apoptotic index).

Keywords: Apoptosis, Cell culture, Mouse breast cancer cells (4T1), Sage (Salvia officinalis L.).





### Breast Cacer During Pregnancy Can Be Treated as in Nonpregnant Women

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It appears that breast cancer diagnosed during pregnancy can be treated much the same as breast cancer diagnosed in nonpregnant women without substantially raising the risks to mother or child, according to a study published online August 16 in the Lancet Oncology.

This conclusion, from an observational study involving 447 European women included in registries of cancers diagnosed during pregnancy, must still be validated in other studies. But until then, the current evidence indicates that pregnancy outcomes are not significantly different between women who receive breast cancer chemotherapy during the second or third trimesters and those who wait until after delivery to start treatment.

In this study, infants exposed to their mothers' breast cancer chemotherapy while in utero had slightly lower birth weights and slightly more complications than those not exposed to chemotherapy, but these differences were not clinically significant.

Breast cancer diagnosed during pregnancy is rare, estimated to occur in less than 1% of breast cancers in Europe. But its incidence is increasing in high-income countries due to the trend of women delaying childbirth until they are older, when breast cancer is more prevalent.

The German Breast Group established its Breast Cancer During Pregnancy registry in 2003 and expanded it to include cases in the Netherlands, the United Kingdom, Poland, Italy, and the Czech Republic in 2009. In the same time period, Belgium also established a registry of all cancers diagnosed during pregnancy and colleagues assessed outcomes in 447 cases from these registries in which women were diagnosed as having early (413 patients) or metastatic (34 patients) breast cancer while pregnant.

The median gestational age at diagnosis was 24 weeks (range, 5-40 weeks), and the median age of the women was 33 years (range, 22-51 years).

Data on chemotherapy were available for 368 women. Of these, 197 received chemotherapy while pregnant and 171 received it after delivery.

Overall, 1,187 cycles of chemotherapy were given, and 63% of these were given during pregnancy. The women received a median of four cycles (range, one to eight cycles) during pregnancy.

A total of 90% of those treated during pregnancy received an anthracyline; 8% received a combination of cyclophosphamide, methotrexate, and fluorouracil; and 7% received a taxane. None of the women received trastuzumab, endocrine therapy, or radiotherapy during pregnancy.





Women with early breast cancer who opted for chemotherapy during pregnancy tended to have more advanced disease, with more unfavorable tumor stage and nodal status, than did those who chose to begin chemotherapy after delivery. After the data were adjusted to account for this difference, the researchers found no significant difference between the two groups in disease-free or overall survival. The estimated 3-year disease-free survival was 70.2% in women with early disease who underwent chemotherapy while pregnant and 74.3% in those who waited until after delivery. Similarly, the estimated overall 3-year survival was 84.9% in women with early breast cancer who underwent chemotherapy while pregnant and 87.4% in those who delayed chemotherapy until after delivery.

The estimated 5-year disease-free survival was 61.1% in women who had chemotherapy while pregnant and 64.4% in those who waited, and the estimated 5-year overall survival was 77% and 82.4%, respectively.

Data were available for 373 newborns, of whom 203 had been exposed to chemotherapy in utero and 170 had not.

Birth weight was slightly lower in the exposed than in the nonexposed infants, but this difference was judged to be "clinically irrelevant" because it didn't affect the health of the babies, and associates said.

Moreover, there were no significant differences between the two groups in major birth defects, infant height, Apgar scores, hemoglobin concentration, leukocyte counts, thrombocyte counts, or alopecia. And there was no significant difference in the proportion of infants discharged with their mothers (34% vs. 41%).

Adverse events occurred more often when chemotherapy was received during pregnancy (15%) than when it was delayed (4%). However, this difference was attributed to the higher rates of preterm labor and premature rupture of the membrane among exposed pregnancies. "Most complications were reported in babies who were delivered prematurely, regardless of exposure to chemotherapy," the investigators said.

The data were not adequate to determine why women who received chemotherapy had a higher rate of preterm delivery. Both physical stress and psychological stress may have played a role, and it is possible that women who received chemotherapy were more prone to infections that may have triggered labor. In addition, the cytotoxic agents themselves may have hastened labor through some as yet unknown mechanism. However, the rate of preeclampsia was similar between the two groups, so oxidative stress, which is known to be induced by cytoxic agents, was not responsible.

Further study of the data being collected in the registries of cancers diagnosed during pregnancy will likely shed light on these issues. colleagues are now performing a matched-pair analysis to assess whether the prognosis of breast cancer in nonpregnant women differs from that in pregnant women when the latter are treated according to current guidelines.





Future studies should address not just the toxic effects of chemotherapy during pregnancy but also the pharmacokinetics of cytotoxic agents in pregnant women, because the physiological changes of pregnancy can greatly affect drug disposition.

"Whether doses should be increased in this population is uncertain because such increases could result in severe thrombocytopenia, neutropenia, and infection, with potentially devastating consequences for both mother and baby," they noted in an editorial comment accompanying and report .

More research also is needed to determine whether the slightly increased fetal risks identified and colleagues could be minimized with better drug selection and dosing, they added.

Key word: Breast- cancer - Women - risk- Pregnancy -diagnose





# Protective impacts of Ziziphus Jujube on biochemical and hematological factors in NMU-induced breast cancer in rats

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**Background:** Breast cancer is the most common cancer among *women worldwide*. Various risk factors are for breast cancer such as N-methyl-N-nitrosourea (NMU). On the other hand, herbs for instance Ziziphus Jujube have been demonstrated to be a source of anticancer compounds. In this study anticancer effects of Z. Jujube on weight, Albumin, Liver enzymes (AST, ALT), albumin, total protein and complete blood count (CBC) in NMU induced cancerous rats investigated.

**Methods and materials:** NMU (60mg/kg) injected intraperitoneally once a week in during 8-weeks. Their weight measured weekly. After observation of first solid tumor, rats daily received Z. jujube (400 mg/kg) during 14 days. In the end study the rats anesthetized and blood samples collected from heart to assay CBC, liver enzymes, albumin and total protein.

**Result:** Our data shown that lower weight of animals in the NMU-treated group then control group. The mean body weights of rats receiving 400 mg/kg of Z. jujube did not significantly (P<0.05) differ from control group. Biochemical analyses showed that ALT, AST, albumin and total protein levels significantly decrease in NMU group whereas normal levels of them seen in Z. jujube group. Also Z. jujube exhibited a preventive effect against anaemia, lymphocytosis and neutrophilia compared to NMU group.

**Discussion:** These findings indicated that Z. jujube moderated clinical sever effects of NMU carcinogenesis and could be useful for treatment of mammary tumors in humans.

Key words: Breast cancer- Z. jujube - NMU- ALT-AST-CBC-Albumin





# R2-12 Study of epidemiology of Breast Cancer in Maragheh, Iran (2007-2012)

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Background and Objectives :Breast cancer is one of the most common and important diseases in womens. Considering the high prevalence and mortality of breast cancer at early age groups in Iran, it seems like necessary to conduct epidemiological studies. The present study was done in a 6 years period at Maragheh, Iran.

**Materials and methods:** This study is was done based on information collected from Maragheh health center registration system on Breast cancer in a period of 6 years, from the January 2007 up to the December of 2013. All of the registered patients were included in the study.

**Results:** During the 6 past years 17 patients were diagnosed suffering from Breast cancer, 14 cases (82%) by paraclinical and 3 cases (8%) by clinical criteria, All of the cases (17, 100%) were over 17 years old. Highest percentage of patients were belong to 2007 (5 cases 29/41%) and the lowest were from 2010 and 2013 (1 cases 5/88%).

Conclusions: There is not a precise statistics on breast cancer prevalence in the country. And some experts have been discussing cancer as a tsunami in future years. Annually increasing rate of cancer has needs an urgent public interference against cancer progression.

Keywords: Breast cancer -Epidemiology – Maragheh





### Health-Related Quality of Life and its related factors among women with breast cancer

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#### Article abstract:

Introduction: Breast cancer is an important issue in chronic disease studies. Breast cancer is the most common cancer among women. Life expectancy is long in patients with breast cancer and in result they suffer longer from cancer and its complications. Therefore it seems necessary to determine QOL and its related-factors in these patients. Objective: The purpose of the study isto determine Quality of Life and its related factors among women with breast cancer. Methods: This analytical descriptive study was conducted on 150 women with breast cancer referred to Educational-therapeutic hospitals in torbat heydarieh in 2012-2013. Data were collected by questionnaire including demographics and Health-related Quality of Life (WHOQOL-BREF) questionnaires. Data were analyzed using SPSS software version 16, and descriptive statistics and t-test, ANOVA, Pearson correlation coefficients and linear regression. Results: Findings indicated that samples mean age was 50.67±10.04and mean HealthrelatedQOLscore was 48.65±9.7, physical domain 53.86±12.45, psychological 41.05±12.06, social 55.36±10.52 and environment 50.26±9.16. In assessing related factors with quality of life using multiple regression indicated significant differences between maritalstatus, occupation, type of breast surgery (p<0.05). Conclusion: QOL was lower in psychological health domain than other domains. Also, relatedfactors with breast cancer patients' QOL included maritalstatus, occupation and surgery type. Therefore paying attention to these factors and conducting psychic assessments and psychiatric consultations are important for improvement of these patients' QOL.

Keywords: Breast Neoplasm /Quality of Life / Patients,





# R2-14 CK19 expression in the peripheral blood of breast cancer patients

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#### Abstract

**Background :**Circulating tumor cells (CTCs) detection in peripheral blood of epithelial cancer patients is a recognized indicator for the presence of primary tumors and/or metastasis. Cytokeratin19 (CK19) has been used as a marker for detecting CTCs in blood.

**Methods:** A total of 50 blood samples including 25 healthy and 25 patients with breast cancer were tested by flow cytometry to quantify the expression of CK19. Briefly, 1 ml blood and 5 ml RBC lysis buffer were mixed and kept on ice for 15 min. Subsequently, the cells were fixed with 4% paraformaldehyde for 20 min at room temperature. They were permeabilized with methanol for 30 min on ice. Then the cells were incubated with FITC conjugated CK19 antibody or FITC-mouse IgG2a isotype antibody as negative control.

**Results:** CK19 was positive in the peripheral blood cells of breast cancer patients at stages II to IV, but not in the patients at stage I and healthy controls. CK19 was detected in 48% of breast cancer patients. The CK19 gene expression in different stages was statistically significant with P <sub>Value</sub>= 0.037.

**Conclusion:** The detection of CK19 in peripheral blood by flow cytometry is a specific and feasible method to monitor CTCs in breast cancer patients.

Keywords: CK19, CTCs, Flow cytometry





# Comparative evaluation of lung absorbed dose in different methods of radiotherapy after mastectomy

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**Introduction**: The aim of radiotherapy is deliver the desired dose to the target volume and minimizing the dose of sensitive tissues to less than the tolerance of the normal tissues to be protected from the effects of radiation

**Material and methodes :** For practical implementation of techniques, trunk phantom and EDRII film manufactured by German Kodak companies are used. For dose-volume curve plotting and data extraction we used from MATLAB2012 software. In this study four technic of tangential photon, Electron technique with two field of 90 degree, Electron technique with two 45 field of degree and electron arc therapy designed by TIGRT software and then been studied. Eventually three of the these techniques have been practically implemented on phantom then Information about the design and practical implementation of techniques for dose of target volume and 30% of lung volume dose compared in dose-volume curve.

**Result:** The average doses to the target volume for electron technique with field of 90 degrees, the highest value of 109.3 percent. In practical dosimetry for tangential photon technique has received 100% of the target dose of 4500 cGy.

**Conclusion**: Dose coverage of the target volume in photon technique and the doses delivered to lung tissue in electron technique were acceptable. Lung doses from electron technique with 45 degrees field is higher than two previous methods, However the doses level for each technique is less than the acceptable dose .

Key word: Radiotherapy, Breast cancer, Mastectomy, EDRII film





#### Can Breast Cancer Survival by Risk Factors? Machine Learning Models

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#### Abstract

Breast cancer is a kind of cancer with high mortality among women. With early diagnosis of breast cancer (up to five years after cell division) survival will increase from 56% to more than 86%. Therefore, an accurate and reliable system is necessary for early diagnosis of benign or malignant tumors. Automatic classification systems as a diagnostic tool can reduce the workload of doctors. Intelligent methods to predict Breast cancer survival which are used in this study consist of Naïve Bayes, Trees Random Forest, 1NN, AdaBoost, SVM, RBF Network and Multilayer Perceptron. In this study 900 patient records are used. These records have been registered at Cancer Registry Organization of Kerman Province, in Iran. For evaluate the proposed models, K-fold cross validation is used. Seven models of machine learning are compared base on specificity, sensitivity and accuracy. The accuracy of the seven models are .95%, .96%, .91%, .94%, .94%, .95% and .95% respectively. Our result showed that trees Random Forest model was the best model with the highest level of accuracy. Therefore, Trees Random Forest model is recommended to Breast cancer survival.

Keywords: Breast cancer survival prediction, classification, machine learning models.





# Early Detection of Breast Cancer: a Study on the Breast Blood Variability by the Breast Phantom Accompanied by Vessels

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#### Abstract

Background: The use of optical spectroscopy as a powerful device for rapid and non-invasive diagnosis of breast cancer was considered. The breast tissue condition can be predicted by using a measuring in the vessels optical properties variety, such as absorption, distribution or transmission.

Methods: In this study blood samples prepared at different concentrations, using a spectrometer (USB4000 Fiber Optic Spectrometer, USA) and light source near-infrared provided by the LED (Phwee ). Experiment performed using breast phantom accompanied by vessels.

Results: The change on the absorption amounts in the blood samples with different concentrations of hemoglobin was determined. Absorption in blood samples from normal concentration of hemoglobin, oxy-hemoglobin were 1.1 and 1.12, respectively. But at two and four times concentrations of hemoglobin as abnormal blood, were 1.60 and 1.70, respectively.

Conclusion: The results absorption values in the normal and oxy- hemoglobin were similar and indicating a healthy tissue. In samples with two and four times concentration of hemoglobin, increasing on the absorption rate was existed. Thus, an increasing on the amount of blood supply can be predicted to cells going to be cancerous.

Keywords: absorption, hemoglobin, spectrometers, breast cancer





# Effect of Combine Decongestive Therapy and the quality of life in breast cancer patients after mastectomy

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**Introduction:** one of the most effective methods for controlling "lymphedema" is the moving fluid in patients with breast cancer following mastectomy.Combine Decongestive Therapy(CDT) is non-invasive technique and consists of 4 elements (hand massage, aid bandage, member education, sports rehabilitation). Our goal is to asses the impact on QOL and functioning of patients with CTD techniques.

**Materials&methods**: Resources related to the study of internal and external databases were collected using relevant keywords.

**Findings**: Fold(1989), weiss(2002) in a study reported the greatest improvement in QOL and physical aspects. Kim(2008) in the study of women with at least 6 months of chemotherapy and radiotherapy in cancer and other surgical treatments for at least 3 months and a maximum of 5 years ago reprted that people's ability to perform activities of daily living and lifting of arm are affected, Koual(2006) mentioned reduction of pain, swelling, and improving the QOL. Mondry(2008), mullai(2014) showed long-term impact of this technique on the QOL of patients. Haghighat(2014) report that patients using this technique compared with the this technique as well as Pressure pump approach showed better results.

**Conclusion:** This kind of techniques is essential to achieve better health outcomes, reduce infection, costs and improve overall QOL for patients.

Keywords: Combine Decongestive Therapy, quality of life, breast cancer patients





# Effect of crab shell extract on the viability and morphology of breast cancer cells in vitro

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#### Abstract

**Introduction:** Natural compounds, including plants, microorganisms and marine organisms due to its anti-cancer properties, have long been considered. Crab shell have various antioxidants. The aim of the present study was to investigate the effect of crab shell extract on the morphology of breast cancer cells (MCF7).

**Materials and methods:** Crab shell was prepared and powdered. Then the hydroalcoholic method was extracted. MCF7 breast cancer cell line was used in this study. The extract was prepared 5 concentrations (100, 200, 400, 800 and 1000  $\mu$ g / ml) and after 24, 48 and 72 hour induced morphological changes were assessed with an inverted microscope. Effect of different concentrations on the percentage of viable cells at these times in terms of quantity were investigated with MTT assay. Data were analyzed by ANOVA and P<0.05 was considered significant.

**Results**: The results of MTT assay after 72 hour and dose of 1000  $\mu$ g/ml showed that 50% of cells were alive compared to the control group (p<0.001). Cells treated with the extract showed dose and time-dependent manner morphological changes .So gradually with increasing time and higher doses, deformation of cell was much sharper. Inhibition of cell growth, increase the size of the vacuoles, loss of cytoplasm and pigmented of nucleus were observed, these changes were not observed in the control group or was very small.

**Conclusion:** Crab shell extract dose and time-dependent manner inhibited cell growth in breast cancer cell line.

Keywords: MCF7 cell line, MTT assay, morphological changes





# Effect of Patient\_ Care giver Education program On Cancer Related Self- Efficacy in Breast Cancer Patients.

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#### Abstract

**Introduction and aim:**Breast cancer is the most common cancers among women population and adaptive strategies play an important role regarding adjustment to disease and treatment. One of the most important needs of breast cancer patients regarding adjustment is information. The aim of this study is to investigate the effect of patient\_ care giver education on cancer related self efficacy of breast cancer patients undergoing chemotherapy.

**Material and Method:**This is a controlled randomized clinical trial. 30 patient care giver pair allocated randomly to intervention or control group. Intervention group received 2 verbal education sessions along with 4 telephones follow up and a written booklet. Education was given to patient and her care giver simultaneously. Control group received routine care only. Post test was taken 6 weeks after the pre test in both groups using Cancer related self efficacy scale. Data was analyzed using SPSS software version 13.

**Result:**Finding showed that patient\_ care giver education can improve cancer related self efficacy of patients in intervention group rather than control group (p<0.05).

**Discussion and Conclusion:**Results of this study confirm our hypothesis that patient\_ care giver education can increase cancer related self efficacy of patients undergoing chemo therapy.

Keywords: Breast cancer, Care giver, Self efficacy, Intervention.





Eligible women's knowledge about the importance of breast self-examination and education in Tabriz health centers in 93

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### Introduction

Self breast examination sick Breast Self examination, awareness of breast health boost Although this method is not diagnostic, and as an aid to screening used most breast cancer patients (48%), followed by the image border of the breast (41%) are discovered and physical examination by a physician, only 11 percent of them are identified.

This study aimed to assess the level of awareness of the importance of breast self-examination qualified women and education in Tabriz health centers have been done in

2014.

# Materials and Methods

This cross-sectional study using data from the completed questionnaires were entered and analyzed in EXCEL software is

### Findings

The results are the average age is 28 years and% 2 self-employment - %2 of teachers -% 96 was home wife. The remaining 19 percent have a college education and 24% of graduate and under graduate diploma. 24 percent to to the bigining time- 33 percent since the beginning of the age of onset of breast self examination correct answer.

20% of those in the 11 breast cancer symptoms noted in 24% to 2 - about 6% for 3, 6% to 4, 2% to 5, 4% to 6 and 8 of the 10 cases, 6% to 11 and% 24 information about no symptoms.

### Conclusion

Given that 41% of breast cancers are discovered by the patient so that proper protocols and training to raise awareness of women over 20 years, for a healthy lifestyle, including the activities physics, nutrition body weight and fixing the is. Breast Self Examination, medical examination, mammography and early detection are required to care for the looks This requires a comprehensive system of referral and referral centers for care and follow-up measures is given.

Keywords: Breast Self Examination





# **Evaluation of the relationship between axillary lymph nodes involvement and Ki67 over expression in Breast cancer patients**

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**Background**: Breast cancer is the most common malignancy between women in the world and Iran. KI67 is a biological marker that is activated in cell proliferation process. In this study we wanted to evaluate of the relationship between axillary lymph nodes involvement and Ki67 over expression in Breast cancer patients

**Method**: In this study, Breast cancer patients admitted to our oncology department, during 2002-2012, were evaluated. The Ki67 correlated with age, menopausal status, histologic tumor type, disease stage, tumor size, lymph node involvement, hormon receptor (ER, PR), Her2, distant metastasis and the overall survival were studied.

**Results**: In this study of 2723 cases of female patients with breast cancer were studied, of whom data were available for KI67 in 449 of the records. Patients divided into two group as follows: High KI67 (>=14%) and Low KI67(<14%). The mean age was 49.3. The most common stag at presentation was stage II( 46.8%). In assessing lymph node involvement, 37.9% of patients were N0; 29.3% on N1, 23.1 on N2 and 9.7 on N3. In 66.2% of N0 patients, the 70.9% of N1, 61.7% of N2 and 64.7% of N3; KI67 rate was high. Although lymph node involvement is associated with KI67, and the relationship of the group N1 is the highest, but in this study there is not statistically significant relationship (P-value = 0.623) in patients with Her2 positive, patients with high KI67 is significantly more than another group( Low KI67) (PV=0.03). On survival analysis performed in patients with Ki67 less than 14% clearly have a higher survival rate compared to others. (PV = 0.02).

**Conclusion**: The results of this investigation indicate that higher value of KI67 does not accompany with the high probability of involving lymph nodes, but due to high level of this factor with decreased survival period, we conclude independently to its influence on lymph nodes involvment, this factor can play as a prognostic factor and seems determining it at the time of diagnosis, will be helpful for decision of appropriate treatment.

Keywords: Breast Cancer, lymph node involvement, KI67





#### Dose history of induced abortion increases the risk of breast cancer?

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#### Abstract

#### Introduction

Breast cancer is the leading cause of cancer death among women but the potential causes remain unclear. Most of the studies have shown the association of reproductive factors with breast cancer risk. So the present study was conducted to determine whether induced abortion, as a reproductive factor, is risk factor of breast cancer.

#### Result

In the studies reviewed, induced abortion was known as a protective factor and also as a risk factor for breast cancer. As risk factor, breasts of women who undergo abortion are exposed to high hormone levels typical of early normal pregnancy, but then do not experience the terminal cell differentiation that occurs late in a normal pregnancy, so leaving breast tissue immature with more sites for cancer initiation and more vulnerable to carcinogens. As protective factor, it shows when the times of induced abortion increasing, the non-differentiated cells would be decreasing, and the susceptibility of epithelial cells to future carcinogenic stimuli would be decreasing too. It has been found even among BRCA2 mutation carriers.

#### Conclusion

Due to the presence of conflicted findings and unknown etiology in this domain, further studies are required.

#### Keywords

Breast cancer, abortion, risk fact





# Evaluation of the expression of mir-21 oncomir, new diagnostic and prognostic molecular marker in tissue and blood of breast cancer patients

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#### Abstract:

Breast cancer is considered as a heterogeneous disease, which involves different profile changes in both mRNA and micro-RNA (miRNA) expression. In recent years, miRNAs have emerged as key players of the carcinogenic process such as tumor initiation, progression and drug resistance. Moreover, these vital micro molecules shift from tumor cells to blood stream and due to the high stability of circulating miRNAs in serum/plasma, they could be used as signatures of related cancers. Therefore, the aim of this study is the evaluation of diagnostic potential of miR-21 oncomir in Iranian Azeri patients of breast cancer. 25 fresh tumoral and marginal tissues with plasma of patients and healthy women were collected and processed for RNA isolation. Then, quantitative expression of miR-21 was analysed by Real-Time PCR in different groups. Our data illustrated that the expression of miR-21 in tumor tissues and margins as well as plasma of normal and breast cancer patients are significantly different (P<0.05). In conclusion, our work shows that plasma miR-21 could be used as a diagnostic molecular marker for invasive ductal carcinomas in a non-invasive manner. However, this claim should be confirmed via more related works that are in part under investigation in our lab.

Key words: breast cancer, micro RNA, Oncomir, biomarker, Real Time PCR.





# Designing and Cloning of cytolethal distending toxin B as Biological Tool against cancer

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#### Abstract:

Cancer is the most common cause of death. Resistance to conventional anticancer therapies in patients with advanced solid tumors has prompted the need of alternative cancer therapies. The cytolethal distending toxins (CDTs) were produced by a variety of Gram-negative pathogenic bacteria. The mechanism of cytotoxicity of toxin is unique in breaks double-stranded DNA. CDT is the product of a three-gene operon (cdtA, cdtB and cdtC). CdtB-associated deoxyribonuclease (DNase) activity is responsible for Cdt-induced cell cycle arrest, suggesting that DNase activity is essential for the CDT toxicity. Material and methods: DNA encoding the CdtB was amplified by PCR using specific primers with appropriate restriction enzyme sites in their ends. The gene was cloned in the pcDNA 3.1(+) vector. Results: The construct was confirmed by colony PCR, restriction analysis and sequencing. Conclusion: The gene was cloned in the pcDNA 3.1(+) vector. CDTs as Biological Tool—Because CDTs interfere with the cell cycle control machinery. It is noteworthy that the use of cytotoxic prodrugs has been considered in the field of cancer gene therapy therefore the construct include CdtB as a biological tool can use against variety of cancers.

#### **Keywords:**

Cytolethal distending toxin, cytotoxicity, deoxyribonuclease





# Development of Novel Molecular Drug Candidates Using Molecular Docking Techniques in the Context of Breast Cancer

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#### Abstract

The most common cancer among women in the world is breast cancer. In Iran, the incidence of breast cancer is increasingly rising and it is among the five most common cancers. Many of natural compounds have high chemo-preventive potential which could be sought to be used in drug discovery. Many studies have shown the incidence rate of cancers such as breast, colon, and prostate are decreased in communities if they would consume cruciferous vegetable. Sulforaphane is one of the isothiocyanates-derived compounds from cruciferous vegetables which bears up such characteristic. Sulforaphane is an electrophile compound which has high tendency to react with sulfhydryl. The target of this compound is sought to be residues of cysteine of many proteins which control the regulatory process of cancer in the cells. The mechanism of sulforaphane is to modify cysteine residues in Keap1 (kelch-like ECH-associated protein 1) in such way to stabilize Nrf2 (Nuclear factor (erythroid-derived 2)-like 2). This stabilization would culminate in activating antioxidant response element (ARE) of phase 2 enzymes. In this study, the structure of protein of interest, Keap1, and highly similar analogues (90%) from PDB and Pubchem websites were respectively downloaded. Then molecular simulation and calculation of docking energy (ligand-protein) by Autodock 4.2 was performed to reach sulforaphanesimilar compounds. In this way, a figurative library with around 300 molecules was generated. Finally we identified CID:52666086, CID:5076735 and CID:13352380 with the lowest docking energy. The aforementioned molecules could be assumed as breast cancer drug candidates.

Key words: Cancer, Sulforaphane, Drug Design, Molecular Docking





#### Folate; friendly or enemy nutrient

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**Introduction:** Folate is one of the water-soluble vitamins. This vitamin functions in cell cycle and gene replication and has dragged researcher's attention to itself. The policy of food enrichment with Acid Folic can be beneficial for decrease of nerve tube defect while *its enrichment can affect cancer* risk, especially breast cancer in women population which is the target group of Acid folic supplement intake or enriched food with Acid Folic, and this issue has caused Folate Controversy. The aim of this review study is investigation of Folate's role in incidence of breast cancer.

**Method:** This review study is based on searching key words of Folic Acid, folate and Breast Cancer in PubMed and ISI data bases and selecting cohort studies since 2005 to 2014. Based on this information 8 articles were surveyed.

**Results:** Investigating of these studies indicates that high amount of Folate intake from supplements or enriched foods is significantly related to increase the risk of cancer .There was no difference in taking folate from supplements or enriched foods.

**Conclusions:** Although Acid Folic supplements and Acid Folic enriched foods caused significant decrease in NTD incidence, regarding its role in cell replication, it can be influential in cancer risk. According to available evidence concerning folate intake with developing cancer, is a U-shaped curve.. Based on these studies, Folate intake less than 150 mcg can be effective in genetic mutations and its intake more than 1mg is involved in increased cell replication.

Key words: Folic acid – Folate – Breast Cancer





# Comparison of Magnetic Resonance Imaging (MRI) and Pathologic Findings in Patients with Breast Complaints

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#### **ABSTRACT:**

This study aims at the identifying relationship between Magnetic resonance imaging (MRI) and pathology results among women with breast cancer. The primitive diagnosis of breast carcinoma is based on mammography using X-Ray and due to low Specificity; it may lead to unnecessary biopsy. MRI compares to mammography enjoys the most sensitivity and specificity in diagnosing cancer pathology.

#### Materials and methods:

This was a cross-sectional study from January 2009 to 2010 in Athary Radiography center. The patients with Breast Imaging-Reporting and Data System (*BI-RADS*) 3, 4, 5 with no chemotherapy or biopsy before MRI were entered to the study. 139 pathology samples were studied. Data were analyzed with SPSS 18.0 statistical software.

#### **Results:**

There were 24 (17.4%) malignant and 114 (82.6%) benign samples. In most of the pathology samples *BI-RADS* 4 was observed. In analyzing *BI-RADS* and pathology a significant relationship was observed (p=0.5551). There was the most relationship between descriptor and pathology of size, shape and internal enhancement.

#### **Discussion:**

MRI is a specific <u>non-invasive</u> technique which doesn't involve any radiation exposure and can detect breast lesions sometimes missed by mammography and clinical examination with low false positive results.

#### **Conclusion:**

Span of MRI descriptor diagnosis involves abroad field of sensitivity.

Key word: MRI- Pathology-Breast Cancer-Lesions





# An Investigation into the Epidemiological Trend of Breast Cancer in the World, particularly in Iran

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#### Introduction:

Breast ailments including breast cancer occupy the top rank in prevalence amongst other female diseases. As a prominent cause of female fatality, breast diseases are of great importance and impose personal, familial and social damages. All over the world, the most prevalent cancer-resulting deaths is those of breast cancer, that is to say, many women around the world die because of breast cancer.

#### Materials and Methods:

This study conducted an epidemiological comparison of breast cancer cases diagnosed in women by scrutinizing Persian and English references available.

#### **Results:**

Breast cancer is the most prevalent cause of death for women between 35 to 55 years of old. Of every one thousand women, one or two women are annually diagnosed to suffer from breast cancer. Indeed, from any four cancer-suffering women, one suffers from breast cancer. In the U.S, one out of nine women has breast cancer. Recent studies show that Iranian women suffer from breast cancer more than from other cancer types. Nearly 5% of breast cancer cases occur genetically and 80% to 90% of them are brought about sporadically. Despite the fact that breast cancer is more common among women of fifty or above, it may occur at any given age. Comparing past and present statistics indicates a relatively fast rise in the number of this ailment among Iranian women. According to the state statistics, one out of every ten or every fifteen women suffers from breast cancer in Iran, but the age at which breast cancer emerges in Iranian women is the whole one decade earlier than in women of the developed countries. Women at any age are exposed to breast cancer. The average diagnosis age of breast cancer in western countries and Iran is 56 and 45 years, respectively. The epidemiological study of breast cancer shows that 75 percent of breast tumors appear in women of fifty and above and only 5.6 percent in those less than 30. And finally, less than one percent of breast cancer cases are diagnosed in women younger than 25. After thirty years of age, however, women face a sudden rise in their possibility of exposure to breast cancer.

#### **Discussion and Conclusion:**

Breast cancer is one of the most important factors posing threats to women's physical, mental and social health. That is why breast cancer is placed at a focal point drawing attention of most health planners and policy makers. It seems that by 2020, an increase of 26 percent in breast cancer is expected, mainly in developing countries. This suggests that lifestyle and environmental factors may exert a tremendous influence on emergence of breast cancer.

Key words: epidemiology, breast, cancer.





#### Homocysteine and Breast Cancer

#### Mohammad Bagher Maljaie<sup>1</sup>

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**Background:** Breast cancer represents the greatest world incidence of all female malignancies and about 1.2 million women suffer from breast cancer in the world every year. Homocysteine, a thiolcontaining amino acid, is produced through the catabolism of the essential amino acid methionine. When methionine is in excess, homocysteine is degraded to cysteine through the transsulfuration pathway in vitamin  $B_6$ -dependent reactions. Recently the elevated plasma total homocysteine concentration has been concerned as the secondary feature of tumoral proliferation and enhances the likelihood of thrombogenesis in cancer patients. The objective of this study was to investigation the association betwen homocysteine in breast cancer.

**Methods:** We studied recently published (2008-2014) and reviewed articles regarding homocysteine and breast cancer.

**Results:** 18 studies were found. In vitro studies have shown that homocysteine levels are positively associated with proliferation rate of cells in a variety of tumors including breast tumors as well as with oxidative damage to cells. However, recent evidence from in vivo and in vitro studies have suggested that cysteine may act as a pro-oxidant agent which causes DNA oxidative damage as a result of the overproduction of free radicals and hydrogen peroxide, leading to gene mutation and subsequent cancer development. Elevated levels of homocysteine and cysteine are also associated with several metabolic disorders including high body mass index, high plasma triglyceride levels, hypertension, and abnormal oxidation of low-density lipoproteins, which may lead to the development of several cancers including breast cancer. Observational studies assessing the association between circulating homocysteine and cysteine and overall breast cancer risk are very limited and findings have been inconsistent. One case-control study reported a positive association between homocysteine levels and breast cancer risk.

**Conclusion:** This studies showing association of hyperhomocysteinemia and hypomethioninemia in breast cancer and other studies indicating association of hyperhomocysteinemia with metastasis and development of drug resistance in breast cancer cells treated





# Early Detection of Breast Cancer : a Study on the Breast Blood Variability by the Breast Phantom Accompanied by Vessels

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#### Abstract

Background: The use of optical spectroscopy as a powerful device for rapid and non-invasive diagnosis of breast cancer was considered. The breast tissue condition can be predicted by using a measuring in the vessels optical properties variety, such as absorption, distribution or transmission.

Methods: In this study blood samples prepared at different concentrations, using a spectrometer (USB4000 Fiber Optic Spectrometer, USA) and light source near-infrared provided by the LED (Phwee ). Experiment performed using breast phantom accompanied by vessels.

Results: The change on the absorption amounts in the blood samples with different concentrations of hemoglobin was determined. Absorption in blood samples from normal concentration of hemoglobin, oxy-hemoglobin were 1.1 and 1.12, respectively. But at two and four times concentrations of hemoglobin as abnormal blood, were 1.60 and 1.70, respectively.

Conclusion: The results absorption values in the normal and oxy- hemoglobin were similar and indicating a healthy tissue. In samples with two and four times concentration of hemoglobin, increasing on the absorption rate was existed. Thus, an increasing on the amount of blood supply can be predicted to cells going to be cancerous.

Keywords: absorption, hemoglobin, spectrometers, breast cancer\

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# Study of **Reaction in** the Biological Components of Breast Exposed to Light Source Near-**Infrared Wavelength**

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#### Abstract

Introduction and Objectives: The response of the breast tissue including glandular and fat cells, milk ducats and blood vessels to nearinfrared light source were studied. Any changes of absorption can be as a prognosis assay in breast tissue.

Methods: The study was performed on samples of water, milk, fat, oxygenated hemoglobin using a spectrometer (USB4000 Fiber Optic Spectrometer, USA) and near-infrared light source from LED (Phwee). The experimental material inserted in to the main and minor blood vessels which arranged in the breast phantom.

Results: A specific change in the optical density of the components of the breast tissue was observed. The absorption values were obtained for hemoglobin oxygenation: 1.12, water: 0.7, Milk: 1.07 and fat: 0.8.

Conclusion: This method can be used to check the different values of accountability, increased hemoglobin levels in cancerous tissue. Even breastfeeding mothers suspected to breast cancer can use this invasive and safe method for presentation of distribution of blood vessels and milk ducts.

Keywords: absorption, blood, breast cancer, spectrometers

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Knowledge, attitude and practice of female students of Maragheh faculty of medical sciences on breast cancer

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Introduction: Breast cancer is one of the most frequent cancers, and it is the second leading cause of cancer deaths in women. Since knowledge, early detection and prevention of breast cancer have had important role in reducing the burden of disease, this study aimed to assess the knowledge, attitude and practice of female students at the Maragheh faculty of medical sciences on breast cancer.

Methods: This is a cross-sectional study which has been done on 300 students of the Maragheh faculty of medical sciences at 2014. Data were acquired by researcher- made standardized questionnaires.

Findings: Results of the study showed that the highest percent of participants (59.2%) were in the age group of 18-20 year old. 6.2% of students have a family history of breast cancer. 69.2% of students have an acceptable attitude of risk factors, prevention, and early detection of breast cancer. 90%, 62%, and less than 1% of the students have moderate, weak, and high knowledge on breast cancer.

Conclusion: The knowledge of students in this study was low on breast cancer, so because of importance of self-examination and early detection in prevention, it is suggested that effective instruction have been implemented in risk groups.

Key words: knowledge, attitude, behavior, breast cancer





# The investigation of amount of awareness, attitude, and performance of women over 20 years old with a positive breast cancer in family history in Markazi province

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### Introduction

Women in Iran are at higher risk of breast cancer than other types of cancers. Therefore, preventive measures and early diagnosis among the family of the patients can be a starting step. So, the researchers conducted the study which resulted in finding 132 women to have educational interventions on them.

**Methodology :** After deciding on research group, there was adata analysis using a researcher made questionnaire that its validity is proven by authorities and its reliability is calculated by Cronbach Alpha, and data analysis was done using the Spss software.

**Results:** Women's age average was 37.5. 90% of them believed that having breast history in their family can increase the possibility of breast cancer. 50% were aware of suitable age for breast self-examination. 36% had self-examination of breast and 27% were aware of the suitable age of having mammography, and 34% of them had a mammography. The amount of women's awareness of the common symptoms of breast cancer was 66% and about the increase of probability of cancer by aging this was 55%. They believed that mammography ray is harmful and 40% believed that probability of breast cancer among married women is higher. 34% agreed that there is a positive relationship between breast cancer and aging. 56% believed that breast cancer will affect the person's whole.

**Conclusion:** Despite knowing the risk factors in patients' families, just one third of them perform self-examination and mammography. This indicates the necessity of having effective educational interventions considering altering women's attitudes towards this cancer.

Keywords: Awareness, Attitude, Performance, Breast Cancer





# The Investigation of Health Belief Model in Early Diagnosis of Breast Cancer in Patient's families in Arak Province

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### Introduction

Breast cancer risk in women with a family history is higher. This study aims at inspecting health belief models about three behaviors of self-examination of breast, medical examination and mammography in patients' families in Arak province.

### Material and methodology

This study was a cross-sectional one in which132 women over 20 with a family history completed our questionnaire. The data were analyzed by t-test and chi-square test.

### Findings

Data collection was done using a reliable and validated researcher made questionnaire. The results indicate that the age average was  $(37\pm13)$  and 89% were educated and 76.5% were married. 36% had self-examination and 50% had a medical examination. Just 34% of them had mammography during the past three years. The average score for perceived susceptibility was  $(14\pm3.2)$  out of 20, the perceived severitywas  $(8\pm3)$  out of 15, perceived barriers  $(50\pm14.5)$  out of 95 and self-efficacy was  $(24\pm7)$  out of 35. There was a significant relationship between age and marital status with mammography and self-examination of breast but there was no significant relationship between them with medical examination.

### Conclusion

Although the risk of breast cancer in patients' families is higher, but the results of this study indicates that their eagerness for having mammography is low. And the factors mentioned by them were: difficulties in taking an appointment, high expenses, being painful, and being afraid of finding a breast cancer tumor.

Key words: health belief model, Breast cancer, Patients' families





# Effect of 6 months aerobic training on plasma leptin levels as a breast cancer risk factor in postmenopausal women

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#### Abstract

Introduction: Physical activity is a well-known modifiable behavior for reducing breast cancer risk in postmenopausal women. However the underlying mechanisms are unknown. This study investigated how 6 months aerobic physical exercise can change leptin level, as a breast cancer risk factor, in postmenopausal women.

Methods: This study was a randomized controlled trial. The study Participants were ages 50 to 74 years, sedentary and postmenopausal that randomly allocated to exercise or control group. Participants in intervention group engaged in aerobic exercise for 3 days per week for 6months, at 70-80% of maximum heart rate. Blood sampling was taken at baseline and after 6-months. Plasma concentration of leptin was assessed using ELIZA kit. Intention-to-treat analyses were performed using independent-sample T test.

Result: We had 41 women (19 in control and 22 in exercise group) at baseline and 27 women at 6 months (14 in control group and 13 in exercise group). Average age and BMI of participants were  $54.5\pm5.8$  and  $27.9\pm3.2$  respectively. Plasma leptin decreased 0.6% in exercisers and increased 8.2% in controls ,although the exercise effect was not statistically significant (p value=0.08).

Discussion and conclusion: leptin levels slightly decreased in exercisers but increased in control group. Thus, regular aerobic exercise might decrease breast cancer risk in postmenopausal women through decreased leptin levels.

Key words: aerobic exercise, leptin, postmenopausal, breast cancer





# Design and Characterization of a Peptide-Based Nanocarrier, MPG-H1-iRGD, for Gene Delivery to Breast Cancer Cells.

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#### Abstract

**Introduction**: Gene therapy is one of the promising approaches for breast cancer treatment. However, nucleic acid based drugs suffer from their poor delivery. Peptide-based nanocarriers have been shown to improve delivery of plasmid and SiRNA into living cells. To improve targeting gene delivery to breast cancer cells, we have designed a peptide based nanocarrier, by combination of iRGD, as a targeting moiety, and MPG H1, as an effective gene delivery carriers.

**Materials and methods**: In this study, the coding sequence of this peptide was synthesized by solid phase synthesis. After that, this fragment was ligated in pET-28a Plasmid and transformed into E. coli BL21. Finally, the purified peptide was characterized by Dynamic light scattering (DLS) analysis and gel retardation assay in agarose gel.

**Result**: The result of DLS showed that the purified nanocarrier has a mono disperse size distribution with a mean hydrodynamic diameter of 30 nm. Gel retardation assay revealed that this peptide successfully condensed plasmid included luciferase gene.

**Discussion & conclusion**: The physicochemical characteristics of nanocarrier were in principle, wellsuited for cell-targeted, in vivo administered nucleic acid –based drug. Furthermore the presence of an iRGD motif in our designed nanoparticle will be ensured specific gene delivery to breast cancer cells.

Keywords: Breast cancer, Gene therapy, Nanocarrier, Peptide





#### **Physical Activity and Breast Cancer Prevention**

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- 2) PhD student in nutrition sciences, student research committee, Tabriz University of Medical Sciences, Tabriz, Iran

#### Abstract

**Background:** Breast cancer is the major cause of cancer-related deaths in women, worldwide. Several factors are associated with the development of breast cancer. Amendable factors include diet and physical activity and some factors such as race, age, family history and genetics are not modifiable. Physical inactivity is associated with obesity breast, colon, kidney, and digestive cancer.

The purpose of this review is to evaluate the effect of physical activity on breast cancer prevention.

**Methods:** Eligible studies were identified by searching the following databases: PubMed, Google scholar, Science direct and Scopus. The search terms used are Physical Activity, Breast Cancer and Cancer Prevention.

**Findings:** There is supporting evidence that physical activity is involved in breast cancer prevention.

Proposed mechanisms include multiple biologic pathways such as adiposity, sex hormones, inflammation and immune function. In addition, physical activity may reduce risk by modulation of adipokines production through reducing fat mass.

Finally, exercise reduces insulin-like growth factor-I levels and increases insulin sensitivity. According to findings, physical activity may help to protect against breast cancer.

**Conclusion:** The evidences are convincing that physical activity is one of the main strategies to promote women's health and reduce breast cancer related death. Future research are needed to provide more clarity regarding the type, intensity, and timing of activity that relate to breast cancer risk reduction and the effects of physical activity on proposed biomarkers to breast cancer risk.

Key Words : Physical Activity 'Breast Cancer 'Prevention





# Pregnant women' knowledge, attitudes and perceptions towards breast cancer prevention: a questionnaire study in Besaat hospital in Sanandaj.

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### Abstract

**Introduction:** Breast cancer is one of the significant causes of malignancy and mortality in women. Breast cancer is more common in developed countries. It could be the result of earlier detection due to screening programs that are performed in developed countries. The aim of this study is evaluation of the knowledge, attitudes and perceptions towards breast cancer prevention in pregnant women in Sanandaj.

**Methods and Materials**: This survey was a descriptive-cross sectional study. A custom-designed questionnaire in persian on knowledge, attitudes and perceptions towards breast cancer prevention was prepared and administered to a random sample of 104 pregnant women in 2012 in Besaat hospital in Sanandaj.

**Results and discussion**: In the collected questionnaire data, all pregnant women were aware about the existence of breast cancers. Only 24% and 50% of participants had previously heard about causes and risk factors for breast cancer, respectively. Screening methods were familiar for 11% of participants. Imaging, self-examining and etc. approaches were considered as a prevention method by 68% of sample population. Almost all of them (90%) believed that the medical procedures are the solution treatment for breast cancers.

**Conclusion**: Proper educational courses to improve breast cancer awareness for women is seems to be necessary.

Key words: Pregnant women; Knowledge and attitudes; Breast cancer.





# Using docking procedure and molecular dynamic simulation to design peptides, drived from Herceptin

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Most of the body normal cells in response to stimulation from inside and outside of the body, growth, reproduce and finally die. If the progress happen in a correct and balanced way, body will be healthy and functions normally but when equilibrium of that is disturbed because of different reasons, it's the start of difficulties. Among women, breast cancer is the most commonest Couse of death among cancers. Bio-drugs like peptides and monoclonal antibodies, are at the highest level of attention and hope for control or treatment of the disease. About 20 percent of the patient are overexpressed HER2 receptor which is involved in signaling pathways which cause uncontrolled growth and reproduction of the cells. Herceptin, a monoclonal antibody is one of the accepted drugs for HER2 over expressed tumors. Here, we tried to find the most important amino acid sequences of Herceptin, which are involved in the interaction. So using ClusPro, we done molecular docking procedure and some short time molecular dynamic simulation on the selected complexes. Our results show that the extracted peptides could be useful to design more efficient bio- drug in comparison to Herceptin.

Key words: breast cancer, Her2, Herceptin, molecular dynamic simulation, docking





Study of **Reaction in** the Biological Components of Breast Exposed to Light Source Near-**Infrared Wavelength** 

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Abstract

Introduction and Objectives: The response of the breast tissue including glandular and fat cells, milk ducats and blood vessels to near-infrared light source were studied. Any changes of absorption can be as a prognosis assay in breast tissue.

Methods: The study was performed on samples of water, milk, fat, oxygenated hemoglobin using a spectrometer (USB4000 Fiber Optic Spectrometer, USA) and near-infrared light source from e LED (Phwee). The experimental material inserted in to the main and secondary blood vessels which arranged in the breast phantom.

Results: A specific change in the optical density of the components of the breast tissue was observed. The absorption values were obtained for hemoglobin oxygenation: 1.12, water: 0.7, Milk: 1.07 and fat: 0.8.

Conclusion: This method can be used to check the different values of accountability, increased hemoglobin levels in cancerous tissue. Even breastfeeding mothers suspected to breast cancer can use this invasive and safe method for presentation of distribution of blood vessels and milk ducts.

Keywords: absorption, blood, breast cancer, spectrometers





## IncRNA ROR is a good way to detect Breast Cancer

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Since current methods for the detection of breast cancer, including personal and clinical examination and mammography tests are not able to detect certain and for a definitive diagnosis requires a biopsy, switching to modern medical methods such as the use of (Biomarkers) is a necessity. Among the benefits of early detection markers in addition to early detection, being inexpensive and safer way than the biopsy. Studies have shown that ROR has important role in tumor genesis and metastasis of breast cancer. This lncRNA significantly causing aggressive and (Migration) in breast cancer cells. It is noteworthy that the ROR is the positive regulator of epithelial to mesenchymal conversion (EMT). EMT plays as a key role in the creation of a malignant tumor and it causing loose connections between cells. ROR mechanism in this process is miR-205 absorption and it removes the inhibitory effect of ZEB 1 and ZEB 2 factors. These factors are involved in the conversion of epithelial to mesenchymal tumors and they have overexpressed in breast cancer. The following guidelines can be used is Antisense RNA to inhibit ROR or using liposomes containing miR-205 to inhibit ROR.

Key Words: lncRNA ROR in Breast Cancer, mir-205, lncRNA ROR and EMT





# Evaluation of serum Ischemia modified albumin (IMA) levels in breast cancer patients

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**Introduction:**Breast cancer (BC) is the second most common malignant neoplasms after lung cancer in the world, with approximately 410 000 cases of death of infected with this disease annually.In recent years, different studies have described the role of ischemia modified albumin (IMA) as a new marker for diseases related to inflammation. The aim of this study was to evaluate the levels of the novel marker ischemia modified albumin(IMA) in patients with breast cancer.

**Materials and Methods:** Thirty eight female patients with BC (mean age,  $40/78\pm./847$  years) and thirty eight age-sex matched healthy persons(mean age  $39/61\pm./926$ years) were included in this study. After samples collection, the serum was separated, and after separating the serum they kept in -70 ° C until of day examination. In this study IMA serum levels were measured by chemical methods.

**Results**: In this study, levels of the serum IMA were significantly higher in patients with BC compared to controls.

**Discussion**: According to the result of evaluation there is a direct relationship between the level of serum IMA and breast cancer. IMA is indicated a marker of ischemia and oxidative stress originating as a consequence of tissue hypoxia. Ima changes have been seen in a variety of diseases.

Keywords: Breast cancer, Ischemia modified albumin(IMA), oxidative stress.





# Evaluation of serum Ischemia modified albumin )IMA) levels in breast cancer patients

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Keywords: Breast cancer, Ischemia modified albumin(IMA), oxidative stress.

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# R2-42 The Effect of Breast Feeding and Breast Cancer Incidence in Women with

#### **Breast Cancer**

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**Background:**Breast Feeding because preventing of the return of menstruation and reduces exposure to estrogen, which reduces the risk of breast cancer.The aim of this study was the effect of breast feeding and breast cancer incidence in women with breast cancer in Shiraz.

**Methods** :This study is a descriptive study, 50 patients with breast cancer participated. Their adjuvant treatments (surgery, chemotherapy, radiotherapy) had been completed. Age of the patients less than 60 years. Demographic questionnaire was used in this study. Data using statistical software spss 16 and the corresponding tests were analyzed.

**Results:**From 50 patients studied, 92% married, mean age  $48.48 \pm 8.53$  years, 42% diploma, 70% housewife and the average number of children (2.59 $\pm$  1.49) and the average number of months of breast feeding them 30.16  $\pm$  25.36. In this study, according to studies in the field, the total duration of breast feeding for more than 60 months were found to have a protective effect against breast cancer (p <0.001).

**Conclusion**: The results show a decrease in the number of months of Breast Feeding is associated with increased risk of breast cancer incidence. It seems can be effective to increase awareness of risk factors for breast cancer in women and the promotion of breastfeeding.

Key words: Breast cancer, Breast Feeding





# The Effect of Training Quality of Life and Coping Strategies on Functional Scale of Quality of Life in Women with Breast Cancer

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**Background:** The aim of this interventional study was to determine the effect of training quality of life and coping strategies on functional scale of quality of life in women with breast cancer in Shiraz.

**Methods:** In this study, 105 patients with breast cancer participated. Their adjuvant treatments had been completed and they were randomly assigned into two groups. To measure functional scale of the quality of life, questionnaire EORTC QLQ-C30, before and two months after intervention were used. Then, the experimental group participated in 5 groups in educational programs of quality of life and coping strategies weekly for one month. The results were analyzed by using spss.v.16.

**Results:** The mean age of the sample was in the experimental group  $(48/48\pm 8/53)$  and in the control group  $(49/30\pm 8/71)$ . In terms of marital status, most of participants in the experimental group (92%) and the control group (81/8 %) were married and most of them in the experimental group (42%) and controls (36/4 %) have diploma. Comparing interventions before and two months after intervention revealed significant statistical changes toward increasing symptoms of functional scale of life quality in the experimental group as compared to the control group (P<0.001).

**Conclusion:** Given that the education quality of life and coping strategies is effective on improving the quality of life in patients with breast cancer. Therefore, it is suggested this as part of the program treatment of patients considered.

Keywords: Breast Cancer, Quality of life ,Coping Strategies





# R2-44 The Impact of Education on Symptomatic Scale of Quality of Life in Women with Breast Cancer

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**Background:** Adverse physiological conditions of cancerous patients as well as psychological stress associated with it arise from the effect of cancer on the quality of life in these patients. The aim of this interventional study was to determine the effect of education on symptomatic scale of quality of life in women with breast cancer in Shiraz.

**Methods:** In this study, 105 patients with breast cancer participated. Their adjuvant treatments had been completed and they were randomly assigned into two groups. To measure symptomatic aspects of the quality of life, questionnaire EORTC QLQ-C30 (before and two months after intervention) were used. Then, the experimental group participated in 5 groups in educational programs of quality of life weekly for one month. The data were analyzed using independent t-test, Chi square and repeated measurement tests.

**Results:** The mean age of the sample was in the experimental group  $(48/48\pm8/53)$  and in the control group  $(49/30\pm8/71)$ . In terms of marital status, most of participants in the experimental group (92%) and the control group (81/8%) were married and most of them in the experimental group (42%) and controls (36/4%) have diploma. Comparing interventions before and two months after intervention revealed significant statistical changes toward decreasing symptoms of symptomatic scale of life quality in the experimental group as compared to the control group (P<0.001).

**Conclusion:** According to the results of this study, education lead to enhancing life quality and decrease other complications in patients with breast cancer. Thus, it is suggested to be considered as a part of treatment program in these patients.

Keywords: Education, Quality of Life, Breast Cancer.





New methods of treatment for breast cancer

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### Abstract

**Background:** Revolutionary in the strategy of diagnosis and treatment of breast cancer in the last 30 years, Significantly is contribute to increase the accuracy of diagnosis and quality of care . The aim of this study was to review recent studies conducted in the new treatments of breast cancer.

**Materials andMethods:** The science direct google scholar SID databases were searched. Finally, 31 article were available was examined for review in the present study.

**Findings :**According to the results, the mammography is a best diagnostic method for breast cancer screening . Needle biopsy thick With the eliminate many of the problems diagnostic FNA, There are many benefits for patients. miRNAs as regulators of gene expression, one of the candidates for new diagnostic and prognostic markers and therapeutic targets are. With the development of laser applications in medicine, can be leads to a damaged tissue temperature higher than normal. Chance of destroying cancer cells at a temperature greater than 42.5  $^{\circ}$  C is very high.

**Conclusion:** Based on the results and findings obtained, the new treatment in different ways,Effective to improve the quality of life, improve health and reduce morbidity and mortality, and Creation the pleasant experience for breast cancer patients,Is effective in the treatment of breast cancer

Keywords: new treatments, breast cancer





#### The Six family of homeobox genes and related mechanisms in diseases

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#### Abstract

In recent years, numerous researches on sine oculis homeobox genes have revealed the significant regulatory role of them in organogenesis as well as diseases such as tumorigenesis; consequently, it is essential to review the biology of Six1 gene. These functions of Six family genes are primarily based on structure as well as regulatory role of them in response to external or internal stimuli. An indispensible role of this family lead to a distinct increase in development has been widely demonstrated since expression of Six family lead to a distinct increase in development of various organs. In addition to this role Six family proteins can either function as a tumorogenesis since they are overexpressed in adult tissues which may lead to metastasis too. This suggests a more complicated elements and factors which involve in activating this pathway. This review describes the function and mechanisms of Six family in several diseases, including cancer and possible strategies to apply this family members for diagnostic, prognostic and therapeutic intentions.

Key words: Tumorigenesis, Six Family, Diseases.



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# Abstract

The sentinel lymph node biopsy (SLNB) was initially pioneered for staging melanoma in 1994 and it has been subsequently validated by several trials, and has become the new standard of care for patients with clinically node negative invasive breast cancer. The fo- cussed examination of fewer lymph nodes in addition to improvements in histopathological and molecular analysis has increased the rate at which micrometas- tases and isolated tumour cells are identified. In this article we review the literature regarding the optimal management of the axilla when the SLNB is positive for metastatic disease based on level 1 evidence derived from randomised clinical trials.

Key words: Sentinel lymph node biopsy; Early breast cancer; Axillary radiotherapy; Axillary dissection; Evi- dencebased medicine





# Uniformity of dose distribution in target volume in radiotherapy techniques for breast after Mastectomy

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**Introduction**: Radiotherapy plays an important role in the treatment of breast cancer. <u>This</u> technique is used of photon and electron beams produced by a linear accelerator to treat breast cancer. The aim of this study was to evaluate the effect of radiotherapy in the treatment of breast cancer is the most common techniques.

**Material and methodes:** The techniques are practical and have been implemented using phantom trunk and EDRII films. For these practical Techniques, films were placed between the slice of the phantom and were irradiated under selected conditions and after irradiation, the irradiated films in various techniques have been appeared under the same conditions with the processor radiology AR 200 XT.

**Result:** Studies show that as a result of using adjacent fields in radiotherapy techniques, Parts of the target volume received dose twice or more than the prescribed dose but by the photon dose technique, rate of received dose is more uniform and closer to the prescribed dose.

Keywords: radiotherapy ,mastectomy,Breast Cancer





# Yoga and psychological health of breast cancer

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# Abstract Background

Breast cancer is a major stressor for any woman, there is great variability in women's emotional responses and their ability to mobilize the resources to cope with distress. Complementary medicine and yoga is among the most commonly used complementary treatments for breast cancer-related impairments.

# Methods

This study was a comprehensive literature review performed through searches in databases such as Medline, PubMed, Science Direct, Scopus, and Google Scholar using the terms "Breast Cancer, Yoga, psychological health, coping skill ".

### Findings

Previous systematic reviews found favorable effects of yoga interventions on health-related quality of life and psychological health in cancer patients and survivors. Yoga is a holistic system of practices that aims to create balance in the physical, mental and emotional self. The practices of breathing, meditation and relaxation have been reported to improve the psychosocial functioning of women during and after breast cancer treatment. Then, the clearly positive effects of yoga on psychological health in breast cancer patients should warrant its use in this patient population.

### Conclusions

Yoga tailored for cancer patients aims to be a gentle practice that appropriately accommodates the needs of the patients. For patients, approval from an oncologist is typically needed before beginning the practice.

Key words: Breast Cancer, yoga, psychological health.





# Knowledge, attitude and practice about breast cancer screening among students of Tehran University of Medical Sciences, in 2010

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**Background and aim:** Because of female students of medical sciences universities, are important persons in promoting breast cancer screening practice, this study was conducted to determine knowledge, attitude and performance about breast cancer screening among students of **Tehran University of Medical Sciences,** in 2010.

**Method:** This cross sectional-analytical study conducted on 415 students of Tehran University of Medical Sciences. Data collection tool was questionnaire with four sections consisting of demography characteristics and Measurement of Knowledge, attitude and practice. For data analysis descriptive and inferential statistics (Pearson, T test, one-way ANOVA and Kruskal-Wallis) were used.

Findings: The mean age of Participants was  $22.3\pm8.2$ . Most of participants were professional doctorate students (62%). The results showed that most student's knowledge is insufficient (50.6%) and majority participant's attitude about this issue is positive (96.4%). Practice of students about breast self-exam and clinical breast exam was poor (91.1%). The majority of students stated that they have inadequate information in this field (62.9%).

**Conclusion:** Inadequate knowledge and negative attitudes and poor performance of students of Tehran Medical Sciences University, Represents a failure to provide necessary training to them and indicate the necessity of training courses about breast cancer and it is screening methods at the University.

Key words: Knowledge, Attitudes, Performance, Breast Cancer, Tehran University of Medical Sciences





# The roles of $\omega$ 3-fatty acid in breast cancer protection

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Background: Beneficial effects of Omega-3 fatty acids are wonderful. Decreases of chronic disease include cardiovascular disease and now is breast cancer. The effect of omega-3 fatty acid in decreases of breast cancer was observed but the mechanism of this effect is unknown. The target of this review is investigated of beneficial effects of omega-3 fatty acids in prevention and treatment of breast cancer.

Method: This review article is with investigated of last studies with searching in PUBMED search motor with keywords include "OMEGA-3 FATTY ACIDS", "EICOSAPENTAENOIC ACID", "DOCOSAHEXAENOIC ACID" and "BREAST CANCER" between 2004 to 2014. After filtration and separation, 37 articles are selected.

Results: The omega-3 fatty acids, eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), can reduce metastasis and induce improving in patients with breast caner. The mechanisms of this effects are:

Down-modulate CXCR4 expression and function in MDA-MB-231 breast cancer cells: in some of studies, were observed beneficial effect of omega-3 fatty acid with expression reduction in some of metastasis migration receptor (e.g CXCR4 that is a transmembrane G-protein–coupled receptor)

Suppress expression of EZH2 in breast cancer cells: The polycomb group (PcG) protein, enhancer of zeste homologue 2 (EZH2), is overexpressed in several human malignancies including breast cancer. Aberrant expression of EZH2 has been associated with metastasis and poor prognosis in cancer patient. The mechanism of this effect is posttranslationally regulate the expression of EZH2 in breast cancer cells.





Effect on progestin stimulation of invasive properties in breast cancer: an appropriate concentration of the omega-3 fatty acid inhibits progestin stimulation of invasive properties.

Inhibition in MDA-MB-231 human breast cancer cells: Omega-3 fatty acids inhibited the growth of MDA-MB-231 cells, in addition, EPA and DHA induced apoptosis, as indicated by a loss of mitochondrial membrane potential.

Discussion and Conclusion: Investigation of last studies show that consumption of Omega-3 fatty acid from supplements or food has beneficial effects in improve and control of breast cancer.





#### Predicting the survival in breast cancer using Hidden Markov Model

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#### Abstract

Among the women worldwide breast cancer is one of the widespread killer diseases. Early detection of the disease is important in patient survival. The main objective of this research was to evaluate predictive ability of hidden markov model in prediction of breast cancer survivability. The breast cancer data set used in this investigation were acquired of Health department of Kerman province and includes the information of 900 breast cancer patients, aged 15 to 80 years, and its associated risk factors among patients since 1999 to 2007. Hidden markov model was made based on a set of 675 patients information (75% of data) and that was validate in a test set of 225 patients information (25 % of data). The Area Under the ROC Curve (AUC), sensitivity, specificity and accuracy used as measures of validate of the efficiency of model. The sensitivity, specificity, accuracy and the area under the ROC curve of the hidden markov model was 0.989, 0.99, 0.939 and 0.94, respectively. According to the four evaluation criteria, hidden Markova model had good performance, therefore hidden markov model and predict the diagnosis of breast cancer is recommended.

Keywords: Hidden Markova model (HMM), EM algorithm, Breast cancer, survival









### Bioinformatics analysis of potential role of miR-520f in patients with breast carcinoma

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#### Abstract:

**Introduction:** In 2012, 6.3 million women alive who had been diagnosed with breast cancer in the previous five years. MicroRNAs (miRNAs) may act as oncogenes or tumor suppressors, so they could be used as a prognostic biomarker. miR-520f was markedly increased in breast cancer, HCC and ovarian cancer. miR-520f do not have any validated target so it is worthwhile in research

**Objective:** This study aim to expand current knowledge about molecular function of miR-520f in regard to its potential as a predicted prognostic biomarker for patients with breast carcinoma.

**Method:** With the focus on their bioinformatical aspects, miRbase and miRwalk databases have been developed for prediction and validation of miRNA targets. targetome expression in breast cancer are evaluated in uniGene database. At last use DAVID database for molecular pathway enrichment analysis.

**Results:** Among the 2067 predicted targets of mir-520f with 3, 4 and 5 score, 267 genes have more than 20 transcripts in breast tumor cell and mammary gland tissue. pathway in cancer as the most statistical relevant pathways. 34 genes were identified that probably indicate a role for sustained angiogenesis, evading apoptosis and proliferation in breast cancer.

**Discussion:** The exact function of miR-520f has not been reported already. Our data suggests that miR-520f acts as an oncogenic molecule by targeting some important tumor suppressor mRNAs. In additional, it is demonstrated that miR-520f involved in drug resistance phenotype in neuroblastoma.

Key words: Breast cancer, miR-520f, SNP, signaling pathway.





# Association between SHBG gene polymorphism (rs 5790) and breast cancer susceptibility

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### **Background and Aim:**

Sex hormone binding globulin (SHBG) gene encodes a steroid binding glycoprotein that secreted by the liver and participates in the regulation of steroid responses. The encoded protein transports androgens and estrogens in the blood. The aim of this study was to evaluate the relationship between polymorphisms E326K and the risk of breast cancer.

**Methods:**This case - control samples were studied on 79 patients with breast cancer and 79 healthy control subjects. After sampling and extraction of DNA, genotyping of all samples were determined by PCR-RFLP method and the results were statistically analyzed, using SPSS 19 software.

**Results:** The average patients' ages were  $48 \pm 8$  years and control subjects were  $43 \pm 6$ . After counting the genotypes, the percentages of their frequencies were determined and observed in tumor samples of AA (56.9%), GG (35.4%), AG / GA (7.6%), and in the control samples of AA (12.6%), GG (77.2%), AG / GA (10.1%). Statistically, significant relationship was observed between the two groups of homozygotes. (P-Value <0.05).

**Conclusion:**The results show that the E326K polymorphism in exon 8 of SHBG gene is associated with risk of breast cancer and may be a factor involved in it.

### **Keywords:**

SHBG gene, Polymorphism E326K, RFLP-PCR







# Association of Breast Cancer Risk with a Common Functional Polymorphisms of fas 1377 and fas ligand 844.

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### **Background and Aim:**

The Fas protein is a member of the TNF-receptor superfamily. Interaction of FAS with Fas ligand is critical in triggering apoptosis of some types of cells such as lymphocytes. Alteration of the FAS/FAS ligand (FASLG) pathway regulating cell death may lead to cancer development such as breast cancer.

### Methods:

We studied 100 patients and 100 healthy population that their sexes and ages matched case subjects with no history of cancer. DNA genomic was extracted from peripheral blood with standard protocol. We genotyped the single-nucleotide polymorphisms of FAS -1377 G > A and Fas Ligand 844 C>T, by the PCR-RFLP assay.

### **Results:**

The Hardy-Weinberg equilibrium analysis was performed by comparing the observed and expected genotypes frequencies in controls using the  $\chi^2$  test. The results showed that the genotypes AA 52%, GG 41%, AG / GA 7% of Fas 1377 G / A in breast cancer cases and genotypes AA 34%, GG 47%, AG / GA19% among control group. Statistically, significant correlation was observed between the two groups. (P-Value >0.01)







# **Conclusion:**

Our study showed that functional FAS -1377 G/A and FASL -844 T/C polymorphisms are associated with the risk of breast cancer of Iranian patients, but FASL -844 T/C polymorphisms showed a weak correlation.

### Key words:

Fas 1377, Fas ligand 844, polymorphisms, RFLP-PCR, Breast cancer





# The effects of vitamin C administration on conventional treatment in patients with breast cancer: A review

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Introduction: Ascorbic acid (AA) readily neutralized reactive oxidant species due to its electron donor-acceptor properties. This oxidoreductase activity makes vitamin C related to various cancers including breast cancer. Method: This paper was provided as a review by selecting related items which published between the years 2000-2014. Documents were collected from databases, PubMed and Google Scholar. Results: Results of laboratory and human studies indicated AA had a dual effect on breast cancer cells, which probably depended on its blood concentrations. It had an antioxidant action in physiologic blood levels. While, in higher concentrations acted as a pro-oxidant agent only in cancer cells. Dose and method of administration are factors affecting on plasma levels of vitamin. It seems cytotoxic concentrations of vitamin only obtained by intravenous (i.v) administration, not oral intake. Generation of hydrogen peroxide (H2O2) was accounted as important mechanisms in vitamin's pro-oxidant activity. Impaired antioxidant systems in disease cells caused to the generated H2O2 by AA auto-oxidation selectively kill cancer cells. Discussion: i.v use of ascorbic acid is found to create cytotoxic blood levels of vitamin. Such finding can suggest a new approach to synergism effect of a seemingly antioxidant vitamin with conventional treatments such as chemotherapy.

Key words: Breast cancer, Ascorbic acid, Conventional treatments





# The Effects of vitamin D on breast cancer risk: A review

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Introduction: Vitamin D is mainly well known for its classical role in calcium homeostasis and bone health. Because its performance is induced by growth hormones-cellular function, it probably has some effects on genesis, development, and survival of cancers including breast cancer. Method: This paper was provided as a review by selecting related items which published between the years 2006-2014. Documents were collected from databases, PubMed and Google Scholar. Results: Many epidemiological evidences suggested an inverse association of high sunlight exposure, as well as dietary intakes and blood levels of vitamin D with breast cancer risk. Modulation of specific gene expression, in tissue specific manner, consequently inhibition of cellular proliferation, induction of cell differentiation and apoptosis could be accounted as related mechanisms. High dietary intakes of vitamin D were also found to be linked to lower breast density. Other proposed mechanisms included increased intracellular calcium concentration, inhibition of angiogenesis, suppression of proliferative activity of estrogen and insulin-like growth factor-1 (IGF-1) and down-regulation of their receptor levels. Discussion: Vitamin D may be related with reduced risk of breast cancer. Such association probably is stronger in premenopausal women than in postmenopausal women caused by interactions among vitamin D, VDR, estrogen, and IGF-I.

Key words: Breast cancer, Vitamin D, Calcitriol





# Expansion and characterization of breast cancer stem cells for the development of BCSC targeting therapeutic strategies

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**Introduction:** Breast tumors contain a small population of tumor initiating stem-like cells, termed breast cancer stem cells (BCSCs) which have been linked to tumor relapse, metastasis, and resistance to radio- and chemotherapy. They are distinguished by characteristic markers, such as the cell surface antigens CD44<sup>high</sup>/CD24<sup>low</sup> and ALDH1 enzymatic activity. Since the scarce number of BCSCs severely hampers their isolation and purification for further research, it is necessary to expand and enrich them in vitro. In the present study, we expanded BCSCs as tumorsphere cells from the human breast cancer cell line MCF-7 and characterized them in comparison to MCF-7 adhesive cells.

**Materials and methods:** Single cell suspensions derived from human breast cancer cell line (MCF-7) were seeded in ultra low attachment plates in serum free specific media. The Aldefluor assay and immunophenotyping was carried out for ALDH1 functional marker and surface antigens expression (CD44<sup>high</sup>/CD24<sup>low</sup>).

**Results:** we found that BCSCs can expand in serum-free medium as non-adherent spheres of cells. Resulting primary tumorsphere after a week (termed T1 tumorspheres) were subjected to passaging every 7th day leading to the generation of T2, T3, and T4 tumorspheres. Flow cytometry data analysis by means of FlowJo software demonstrated that tumorspheres have higher percentage of CD44<sup>high</sup>/CD24<sup>low</sup> and ALDH-expressing cells.

**Discussion:** The study suggest that BCSCs have a higher proportion in suspension culture as tumorsphere and this technique can enrich and expand breast cancer stem cells as undifferentiated cells in vitro for further studding the cells behavior. Furthermore, this population





would be a suitable in vitro model to develop a new treatment strategy that can effectively eliminate the BCSCs that drive tumor growth and recurrence.

Keywords: Breast cancer, tumorspheres, cancer stem cells, MCF-7





# Evaluation of sonographic and mammographic appearances of invasive lobularcarcinoma in breast cancer research center since 1380 to 1392

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Introduction: the prevalence of invasive lobular carcinoma was reported 10-15% of all invasive breast carcinomas.Current imaging modalities are not specific for differentiating ILC from other invasive breast cancers.This study is a report of patients with invasive lobular carcinoma in Breast cancer research center for12 years.

**Methods** : In one descriptive study patient's physical paper with diagnosis of ILC from 2001 to 2013 were evaluated. Information about patients including age, tumor size, mammographic and sonographic findings, ER and PR receptors, lymph node status and history of positive family history were analysed in SSPS soft ware.

**Result**: from 1380 to 1392 total numbers of invasive cancers were 2206. Among them 83 cases had pathology of ILC. (3.7%)

Mean age of patients was 49 + 11.6 and 53% was premenoposal. Family history of breast cancer was negative in 94%. The most common findings in mammography was speculated mass or ill defined or irregular outline masses. Other findings were focal asymmetry (17%), microcalcifications 6.8%, skin changes 6.8%. Mammography was normal in (6.7%). BIRADS classifications was equal to 5 in 76.9%, 4 in 14.4%, 3 in 14.3%.

The most common findings in sonography was mass in 94% that two of them had regular border and other ones had speculated and irregular borders. Posterior shadowing is the next finding. BIRADS classifications were equal to 5 in 83.3%, 4 in 11%, 3 in 5.6%.







Mean tumor size was 3.1+-1.8% that(compatible with T2). Involvement of axillary lymph nodes was positive in 56%.

ER and PR were positive in all cases. Incidence of bilateral and multicentric cases were 8.4%.

**Conclusions**: Regarding this study ILC had low frequency in all invasive carcinomas and bilateral and multicentric cases were not common .The most common findings in mommogrphy was mass and the most common appearance in sonography was irregular hypoechoic mass with or without shadowing.







Epidemiological review of the situation of Breast cancer that have been registered in pathologic labs Under coverage Iran University of Medical Sciences (IUMS) from 2011-2013

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Introduction:

The cancer is the second leading cause of death in the country. The Breast cancer is the most common cancer among Iranian women. The purpose of this study is to determine the incidence of breast cancer has been recorded during 2011 to 2013 in the area recorded by Iran University of Medical Sciences.

Materials and Methods:

Recorded Cases of cancer diagnosed in the pathology labs under covered by Iran University of Medical Sciences were over a period of three years (2011-2013) and registered in a Iran Cancer Registry (ICR) Software, then the output data analyzed by Microsoft ® Excel® program. Results:

The number of cancers diagnosed by pathology labs in the years 2011, 2012 and 2013 were 18330- 21830- 23203, respectively, of the Breast cancer was the most in three years, 19%, 19% and 20%, respectively, colorectal cancer was the second (Per three years 11%). Skin cancer was ranked third in 2011 and 2012 with 8% and 10% of stomach cancer was ranked third in 2013 with 7%.

Conclusion:







Given the importance of early detection of breast cancer, it is recommended to be educated in the prevention and early diagnosis of cancer in patients at risk Keywords:

Cancer, pathology, breast cancer





# خودمدیریتی در نوجوانان جهت پیشگیری از سرطان سینه

فاطمه علایی کرهرودی: دانشجوی دکترای تخصصی پرستاری و مربی هیئت علمی دانشکده پرستاری و مامایی شهید بهشتی <u>falaee@yahoo.com</u>

مقدمه: سرطان سینه در نوجوانان نادر و قابل پیشگیری است. رعایت نکات بهداشتی وخود مدیریتی در بکارگیری اقدامات پیشگیری کننده منجر به حفظ سلامتی نوجوانان در رابطه با پیشگیری از سرطان سینه می شود.

محتوی: بافت سینه در هفته پنجم جنینی تشکیل می شود. رشد بافت در نوجوانی (۱۳–۸سالگی) همراه با تظاهر سایر صفات ثانویه جنسی انجام می شود. موارد رشد پاتولوژیک سلول های نسج سینه در کودکان و نوجوانان نادر است. اما علیرغم شیوع و بروز کم آن حائز اهمیت می باشد. نوجوانان می توانند با رعایت نکات بهداشتی از جمله داشتن فعالیت کافی، عدم استفاده از تغذیه نامناسب و خود آزمایی سینه ابتلا به سرطان را در خود مدیریت کنند.

بسیاری از مواد مصرفی آرایشی نامطمئن و مصرف بی رویه آن ها می تواند روی تولید استروژن تاثیر نامطلوب داشته و بی توجهی به این امر، خطر ابتلا به سرطان سینه را تا سن ۲۵ سالگی شدت افزایش دهد. مصرف غذاهای پر کالری احتمال بروز سرطان سینه را در نوجوانان بالا می برد. غذاهای پر چرب و پر کربوهیدرات در افزایش تکثیر سلول های سرطانی در نسج سینه نقش دارد. تحرک داشتن کافی و منظم نیز عامل مهم دیگری در این زمینه است. به طوری که اگر زنان از دوران نوجوانی به طور مرتب ورزش کنند، احتمال ابتلا به سرطان پستان در آنها ۲۵ درصد کمتر می شود. آگاهی از این عوامل خطر و یادگیری روش صحیح خودآزمایی سینه به نوجوانان کمک می کند که عوامل خطر را در خود مدیریت کنند و این وظیفه اعضای تیم سلامت است که این آگاهی ها را در اختیار نوجوانان قرار دهند و به آنان در امر خودمدیریتی مربوط به سرطان سینه یاری برسانند.

**نتیجه گیری:** در صورت خودمدیریتی نوجوانان در امر پیشگیری از سرطان سینه احتمال بروز خطر در این مورد کاهش می یابد.

**واژه های کلیدی:** پیشگیری، سرطان سینه، خودمدیریتی، نوجوانان





# به فرزندم درباره سرطان پستان چه بگویم؟

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مقدمه: ابتلا به سرطان نه تنها بر بیمار مبتلا بلکه بر خانواده آنان تاثیرات بسیاری بر جای می گذارد. در این میان برای پدر و یا مادری که با سرطان مواجه شده اند، صحبت با فرزندان در ارتباط با تشخیص سرطان یک چالش بزرگ به شمار می آید.

**روش کار:** این مقاله با مطالعات کتابخانه ای و رجوع به مقالات معتبر موجود و در دسترس و نیزموتورهای جستجو و پایگاههای معتبر موجود در شبکه انجام شده است.

**یافته :** سرطان علاوه بر بیمار مبتلا تغییرات روانی اجتماعی بسیاری بر اعضاء خانواده خصوصا برکودکان میگذارد. پاسخ های کودکان در خانواده براساس سن أنان و شرایط حاکم بر خانواده متفاوت می باشد. بر اساس تحقیقات افراد مبتلا به سرطان عنوان می کنند که برقراری ارتباط در خانواده به منظور غلبه بر این مشکلات نقش مهمی را ایفا می نماید. واکنش اغلب کودکان به صورت عدم قطعیت، ترس، احساس گناه و اضطراب می باشد و این بر عهده والدین و تیم چند رشته ای درمان می باشد که شرایط موجود را مدیریت نمایند. مادر در خانواده به عنوان یک تکیه گاه برای دنیای کودکان می باشد و اکنون به دنبال سرطان، این تکیه گاه مورد تهدید قرار گرفته است. چنانچه مادری قصد دارد تا با کودک خویش صحبت نماید بهتر است تاآنجا که امکان دارد دیدی باز نسبت به موضوع داشته باشد هرچند این موضوع سخت به نظر می رسد، بایستی از ابتدا تصمیم بگیرد که چگونه با فرزندش صحبت نماید؟ باید به خاطر داشت که با آغاز شرایط جدید در خانواده و عدم توجه والدین و ایجاد فاصله بین کودک و والدین، کودکان نیز مانند بزرگسالان فاصله های ایجاد شده بین خود و والدینشان را به شیوه های دیگر وبه اشتباه پرخواهند نمود. راهکارهای توصیه شده در این زمینه عبارتند از: فرزند خویش را تشویق به صحبت کنید، واز او بخواهید تا ازشما سوال نماید، صادقانه به او پاسخ دهید، متناسب با سن و فهم کودک خویش با او صحبت کنید، جوابهای واقع بینانه به سوالات کمک میکند که ترس های او کم شوند، اطلاعات قابل درک را در اختیار کودک خویش قرار دهید، اگر بخاطر درمان چند روزی در منزل نیستید، اگر موهایتان را از دست داده اید، یا سینه خویش را تحت جراحی از دست داده اید، اجازه دهید که فرزندتان بداند که چه اتفاقاتی در جریان می باشد. با معلمین فرزند خویش می توانید در ارتباط باشید و از وقایع پیش آمده برایشان بگویید قطعا در سازگاری و پذیرش شرایط موجود به کودک شما کمک خواهند نمود. اگر چه، چگونگی برخورد خانواده با بحران ایجاد شده به نحوه برخورد خانواده با مشکلات قبل ازوقوع بیماری بر میگردد. خانواده هایی که ارتباط باز دارند و احساساتشان را به سادگی به اشتراک می گذارند قادرند تا به راحتی درباره تاثیر سرطان بر افراد صحبت نمایند اما گروهی که مشکلات و مسائل خویش را به تنهایی حل می نمایند در مواجهه با سرطان در خانواده دچار گرفتاری خواهندشد.





**نتایج:** عواقب تشخیص سرطان نه تنها بربیمار و زندگی وی بلکه بر اعضاء خانواده بیمار نیز می باشد. بیماری منجر به تغییر در خانواده می شود. والدین می توانند با ارتباطات صحیح از زمان تشخیص و در فرایند درمان این نگرانی ها را کاهش دهند.

واژه های کلیدی: سرطان سینه، والدین مبتلا به سرطان، خانواده





تبیین ادراک بیماران مبتلا به سرطان پستان از نیازهای مراقبتی بیماران

طاهره السادات خوش نظر ، مريم رسولي ، ، محمد اسماعيل اكبري ، فرح لطفي كاشاني ، سيروس مومن زاده ، موسى سجادى •

مقدمه : سرطان پستان تاثیر بسزایی بر کیفیت زندگی بیماران داشته و سبب بروز علایمی در ابعاد جسمی، روانی، اجتماعی و معنوی بیماران می گردد. پژوهش فوق با هدف تبیین ادراک بیماران مبتلا به سرطان پستان از نیازهای مراقبتی در زنان مراجعه کننده به مرکز تحقیقات جامع سرطان انجام گرفت.

روش بررسی: این مطالعه با رویکرد کیفی و با بهره گیری از شیوه تحلیل محتوا انجام شد. مشارکت کنندگان شامل۷ زن مبتلا به سرطان پستان بودند که به روش نمونه گیری هدفمند وارد مطالعه شدند و مورد مصاحبه های چهره به چهره و نیمه ساختارمند قرار گرفتند. بعد از گردآوری داد ه ها، تمام مصاحبه ها پیاده سازی شدند و مورد بازنگری قرار گرفتند و طبقات استخراج گردید. در ابتدا شباهت های معنایی مورد بازنگری قرار گرفت و زیرطبقات مشخص شدند و سپس در بازنگری مجدد زیرطبقات مرتبط در یک طبقه قرار گرفتند.

**یافته ها:** میانگین سنی شرکت کنندگان (۴۸ /۷ ± )۴۸/۳ سال بود. در طول تجزیه و تحلیل داده ها، دو مضمون اصلی پدیدار شد: ۱) طبقه نیازجسمی با زیرطبقه تسکین درد و ۲) طبقه نیاز روانی⊣جتماعی با زیر طبقه رفتار حمایتی جهت کاهش اضطراب و افسردگی پس از تشخیص بیماری می باشد.

**نتیجه گیری:** یافته های این مطالعه به تیم مراقبتی در جهت درک و شناخت بیشتر نیازهای مراقبتی بیماران مبتلا به سرطان پستان و نیز ارائه راهکار های موثر در جهت ارتقای سلامت آنان یاری می رساند.

كلمات كليدى: سرطان پستان، تحليل محتوا، نياز مراقبتى

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# R3-16 عدم قطعیت در بیماری در زنان مبتلا به سرطان پستان و عوامل مرتبط با أن

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مقدمه و هدف: سرطان بیماری مزمنی است که اثرات منفی زیادی بر زندگی بیماران دارد. سرطان پستان شایع ترین سرطان در بین زنان در تمامی جوامع است. عدم قطعیت در بیماری یکی از تجارب بیماران مبتلا به سرطان است که می تواند موجب کاهش کیفیت زندگی و سازگاری با بیماری شود. هدف از انجام این مطالعه بررسی میزان عدم قطعیت در بیماری و ارتباط آن با برخی متغیرهای بالینی و جمعیت شناسی در بیماران مبتلا به سرطان پستان بود.

روش ها: این مطالعه توصیفی ـ همبستگی و مقطعی در مورد ۱۲۰ بیمار زن مبتلا به سرطان پستان مراجعه کننده به دو مرکز ارجاع مهم سرطان در تهران( بیمارستان طالقانی و امام خمینی) در سال ۱۳۹۲ انجام شد. داده ها توسط پرسش نامه ویژگی های جمعیت شناسی و بالینی بیماران، و نسخه فارسی مقیاس "عدم قطعیت در بیماری" که روایی و پایایی آن تایید شده است، گردآوری شد. داده ها با استفاده از نرم افزار SPSS نسخه ۲۰ توسط آزمون های آماری ضریب همبستگی پیرسون، اسپیرمن، کای اسکوئر، تی مستقل و آنالیز واریانس تحلیل گردید.

**نتایج:** نتایج مطالعه نشان داد میانگین سنی بیماران (۲۰/۸) (۲۰/۸ سال و امتیاز عدم قطعیت در بیماری آنها(۱۶/۷) ۸۴/۶ بود. بین سطح تحصیلات و عدم قطعیت در بیماری(۱۶/۷) ۸۴/۶ بود. بین سطح تحصیلات و عدم قطعیت در بیماری(۲۰/۱) ۸۴/۶ بود. بین سطح و معکوس و عدم قطعیت در بیماری(۲۰/۱) میلات و عدم قطعیت در بیماری(۲۰/۱) میلات و معکوس و عدم قطعیت در بیماری الطه معنی دار قوی و معکوس وجود داشت معدم قطعیت درک شده رابطه و جود داشت. اما بین سن بیماران، وضعیت تاهل و تعداد فرزندان با عدم قطعیت در بیماری رابطه معنی دار قوی داشت. اما بین سن بیماران، وضعیت تاهل و تعداد فرزندان با عدم قطعیت در بیماری رابطه معنی داری وجود داشت. اما بین سن بیماران، وضعیت تاهل و تعداد فرزندان با عدم قطعیت در بیماری رابطه معنی داری و معکوس و مود نداشت.

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**نتیجه گیری:** بیماران مبتلا به سرطان پستان در حد نسبتا بالایی عدم قطعیت در بیماری را تجربه می کنند. بررسی عدم قطعیت در این بیماران و انجام مداخلات و استفاده از استراتژی های موثر توسط پرستاران می تواند منجر به کاهش عدم قطعیت در بیماری و در نتیجه ارتقای کیفیت زندگی و سازگاری آنها با بیماری شود.

کلید واژه ها: عدم قطعیت در بیماری، سرطان، سرطان پستان، ایران.





# R3-08 Heavy Metals Contamination of Milk and Dairy Products and Risk of Cancers

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Milk and milk products are recognized as functional foods which their uses have a direct and significant effect on health outcomes and their consumption correlate with a reduced risk of numerous cancers. On the other hand, growing environmental pollutant resulted from the increase of industrial, agricultural and urban emissions caused milk and dairy products contain different amounts of toxic contaminants such as heavy metals which induce risk of cancers. Milk and dairy products become contaminated with heavy metals through water or manufacturing and packaging processes. Elements such as chromium and nickel release from stainless steel dairy equipment or tin may enter milk through direct contact with soldered cans. Some Heavy metals are not expected to have any direct contact with milk and milk products except in accidental cases such as cadmium, lead, mercury, and arsenic. For these elements, the main pathway of contamination is through the ingestion of contaminated feed and water by milk-producing animals. The carcinogenicity of arsenic, chromium, and nickel has been established. Many previous studies have proven that long-term, even with low-level, exposure to inorganic arsenic is related to increased risk of the lung, skin, bladder, pancreatic and hematopoietic cancers.





Because of milk and dairy products can contribute a large fraction of the intake of trace and toxic elements by the wide consumption in the human diet, especially in early childhood, control of these elements in dairy products is extremely required. So, determination of the residual concentrations of metals in milk products could represent the safety and hygienic status of the theses products. Moreover could be "indirect indicator" of the degree of environmental pollution of the region of milk is produced. Therefore, monitoring heavy metal contamination and using different technics for reducing of them in these products is an effective way to prevent cancers in society.







# Effectiveness of Group Training Based on Acceptance and Commitment Therapy on Anxiety and Depression of Women with Breast Cancer

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## Abstract

**Background** Breast cancer is the most common cancer in women that as a sudden event has profound effects on all aspects of patient's lives. Psychosocial interventions may play important roles in reducing anxiety and depression among breast-cancer survivors. Therefore, group training based on acceptance and commitment therapy may help women to cope better with their condition, and decrease their anxiety and depression.

**Methods:** In an experimental study, 30 patients with breast cancer were selected by convenience sampling method and randomly assigned to 2 experimental and control groups. The experimental group attended acceptance and commitment training classes for 8 weeks continuously (each class lasting 90 minutes). Participants in both the experimental and control groups completed Beck Anxiety Inventory (BAI) and Beck Depression Inventory (BHI-II) as a pretest and posttest. Analysis of Covariance was used as the statistical method.

**Results:** In acceptance and commitment group training, anxiety and depression were significantly decreased (p<0/05). These changes were not observed in the control group.

**Conclusions:** The results showed that group training based on acceptance and commitment therapy is an effective method in reducing anxiety and depression. Hence psychological interventions can be used to reduce psychological difficulties of women with breast cancer.

Keywords: Breast Cancer; Treatment based on acceptance and commitment; anxiety; depression





# اثربخشی آموزش گروهی ذهن آگاهی و درمان مبتنی بر پذیرش و تعهد بر افزایش کیفیت زندگی زنان مبتلا به سرطان پستان

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#### چکیدہ

**مقدمه:** سرطان پستان از شایع ترین سرطان در زنان است که تأثیرات عمیقی را بر سلامت روانی و اجتماعی زنان مبتلا به سرطان پستان به جای می نهد. هدف پژوهش حاضر تعیین اثربخشی آموزش گروهی درمان مبتنی بر پذیرش و تعهد بر کیفیت زندگی زنان مبتلا به سرطان پستان بود.

**روش بررسی:** روش تحقیق از نوع نیمه آزمایشی با پیش آزمون، پس آزمون با گروه گواه بود. بدین منظور ۳۰ نفر از زنان مبتلا به سرطان پستان بیمارستان شهدای تجریش به شیوه نمونه گیری در دسترس انتخاب و به طور تصادفی در دو گروه آزمایشی (۱۵ نفر) و کنترل (۱۵نفر) جای گرفتند. همه آزمودنی ها، ضمن اجرای ۸ جلسه ۹۰ دقیقه ای برنامه آموزش گروهی درمان مبتنی بر پذیرش و تعهد برای گروه آزمایش، در دو مرحله پیش آزمون و پس آزمون با استفاده از پرسشنامه کیفیت زندگی مورد بررسی قرار گرفتند. داده های بدست آمده با استفاده از روش آماری تحلیل کوواریانس مورد تجزیه و تحلیل قرار گرفت.

**یافته ها:** یافته های حاصل از تحلیل کوواریانس نشان داد که برنامه درمانی کیفیت زندگی را در گروه آزمایش افزایش داده است. درحالیکه این اختلاف معنادار درباره گروه کنترل مشاهده نشد. (p<٠/٠۵). به عبارت دیگر این مداخله توانسته میزان کیفیت زندگی را در گروه آزمایش افزایش دهد.

**نتیجه گیری**: از این رو می توان نتیجه گرفت که مداخلات روانشناختی از جمله آموزش گروهی درمان مبتنی بر پذیرش و تعهد، می توانند به عنوان یک روش مؤثر به منظور افزایش کیفیت زندگی زنان مبتلا به سرطان پستان به کار گرفته شوند.

واژه های کلیدی: سرطان پستان، درمان مبتنی بر پذیرش و تعهد، کیفیت زندگی





# بررسی اثربخشی درمان شناختی \_رفتاری مبتنی بر الگویی ۸ مرحلهی کش بر بهبود تصویر تن و بهزیستی روانشناختی زنان مبتلابه سرطان پستان

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مقدمه وهدف: در حال حاضر یکی از انواع شایعترین سرطان که زنان با آن مواجه هستند سرطان پستان است. تغییر در تصویر ذهنی از جسم درنتیجه بیماری، جراحی یا درمان، اسکارهای دردناک، ریزش مو، تغییر وزن، منوپوز زودرس وعدم ایفای نقش در محیط خانواده و کار منجر به مشکلات روانی اجتماعی وتاثیر بر بهزیستی روانشناختی فرد می گردد لذا این پژوهش با هدف تعیین اثربخشی درمان شناختی-رفتاری مبتنی بر الگوی ۸مرحله ای کش بر بهبود تصویر تن و بهزیستی روانشناختی زنان مبتلا به سرطان پستان انجام گردیده است.

روش بررسی: این پژوهش مطالعهی نیمه تجربی، شامل دو گروه مداخله و شاهد است؛ که بر روی ۳۰ زن ماستکتومی شده و تحت شیمیدرمانی مراجعه کننده به مرکز تحقیقات سرطان دانشگاه علوم پزشکی شهید بهشتی در تهران انجام شد. نمونه گیری به صورت آسان وجایگزنی افراد در گروهها به صورت تصادفی بوده است. در طی این پژوهش گروه مداخله (۱۵ نفر) در ۸ جلسه درمان شناختی \_رفتاری شرکت کردهاند. ابزار گردآوری اطلاعات در طی این پژوهش پرسشنامه بوده است و به منظور دستیابی به نتایج از نرمافزار spss ودر سطح آمار توصیفی از میانگین و انحراف معیار و در سطح آمار استنباطی از روش تحلیل کوواریانس چندمتغیری استفاده گردید.

**یافته ها:** نتایج حاصل از این پژوهش نشان می دهدکه میانگین نمره تصویر بدنی و بهزیستی روانشناختی در گروه مداخله قبل و بعد از درمان تفاوت آماری معناداری داشته است (p<٠/٠۵).

**بحث ونتیجه گیری:** مهم ترین ویژگی افراد دارای سرطان پستان داشتن یک تصویر منفی از جسم خود بوده است که متعاقبا کیفیت عملکرد روانی –اجتماعی وبهزیستی روانشناختی فرد مختل میشود، لذا انجام رواندرمانی مبتنی بر روش شناختی\_رفتاری الگویی ۸ مرحلهی کش به صورت گروهی برای این بیماران توصیه می گردد.

واژه گان کلیدی: سرطان پستان، تصویر تن، بهزیستی روانشناختی، درمان شناختی-رفتاری

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# Evaluation of benzoxaloyl coumarins induced cell death in MDA-MB-231 Triple negative breast cancer cell line

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#### Abstract

The incidence of breast cancer in Iran is less than western countries but it occurs about a decade earlier than well developed countries. In comparison with other types of breast cancer, patients with triple negative tumors have poor prognosis with less response to current therapies. Here, we investigated the cytotoxic effect of three synthetic benzoxaloyl coumarins in triple-negative breast cancer cell line MDA-MB231. Three derivatives of benzoxaloyl coumarin were synthesized. MDA-MB231 cells were treated with concentration of 5, 25, 50, 100 and 150µM of benzoxaloyl coumarins for 72 hours, separately. Cell viability was assessed using MTT assay, analyzed by GraphPad Prism software and EC50 values were calculated. All three benzoxaloyl coumarin derivatives induced significant cell death in the treated MDA-MB-231 cells. Results showed that the Benzoxazole coumarins induce a significant cell death in the MDA-MB-231 cells. So far, the cell death induction of benzoxaloyl coumarins in triple negative breast cancer cell lines (such as MCF7) were reported. It could be concluded that benzoxaloyl coumarins possess cell death induction activity and might be new candidates in drug design for triple negative breast cancer.

Keywords : Breast cancer, cytotoxicity, triple-negative breast cancer (benzoxaloyl coumarins





# The association between Vitamin D status and risk of breast cancer: a casecontrol study

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**Background**: Increase in the incidence of breast cancer during the 4 past decades has made it the most prevalent cancer among the Iranian women. Some of current evidence support the association between vitamin D status and breast cancer development. Although the role of vitamin D in breast cancer incidence and outcomes is controversial. Results from some studies support the inverse association between vitamin D intake or serum concentration and risk of breast cancer. Therefore, considering the conflicting results of previous studies and high prevalence and rising incidence of breast cancer and high prevalence of vitamin D deficiency in Iran, this case-control study aimed to investigate the relationship between intake and serum concentration of vitamin D and risk of breast cancer.

Methods and Materials: A total of 135 incident breast cancer cases in the Cancer Research Center of Shahid Beheshti university of medical sciences were





matched with 135 controls by age and menopausal status. Information on the risk factors of breast cancer was collected to assess the role of confounding factors in the relationship between vitamin D and breast cancer. A 168-item food frequency questionnaire was filled by interviews for every participants to assess dietary intake of vitamin D and some other dietary factors. To determine the vitamin D content of foods we used the USDA nutrient database. For analyzing the food frequency questionnaires we used the food composition table for the comprehensive plan for assessment of nutrient intakes in 1381-83. 5 mL blood samples were collected from all participants to measure serum 25(OH)D using ELISA method.

**Results**: Dietary intake of vitamin D was inversely associated with risk of breast cancer so that the odds ration of the forth quartile of dietary vitamin D intake compared to the first was 0.392 (P=0.008). After adjusting for the confounding factors this inverse association remained significant and the risk of developing breast cancer for those in the forth quartile was 2.6 times lower compared to those in the first quartile. When the participants were stratified by menopausal status the inverse association remained marginnaly significant in premenopausal women but not in postmenopausal participants. Women who were in the forth quartile of serum 25(OH)D level had 3 times lower risk of developing breast cancer compared to women in the first quartile. In adjusted model the inverse relationship between serum 25(OH)D concentration and risk of breast cancer remained significant OR(95% CI)=0.269(0.122-0.593). in the stratified model the inverse association was only seen in premenopausal women OR(95% CI)=0.25(0.094-0.687).

**Conclusion**: Results from this case-control study support the protective effect of higher serum concentration of 25(OH)D against breast cancer. Moreover, dietary but not total intake of vitamin D was associated with decreased risk of breast cancer.

Key words: Breast cancer, Vitamin D, 25(OH)D





Role of ovarian sleep with gnrh analogs during chemotherapy for fertility preservation in young patient (up to 40 years) with breast cancer(study of 54 patients in ostad alinasab hospital and oure clinic in tabriz).

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Background :Breast cancer is the commonest malignant disease in women and up to 20% of this cases in west world (Near to 50% Iran ) have less than 50years old (Pre menopause ). Premature ovarian failure (POF) is a common toxicity of chemotherapy. For reproductive age women, a large number of whom have either not contemplated or not completed their families, the diagnosis of breast cancer poses fertility concerns. Advances in breast cancer care , including early diagnosis and aggressive chemotherapy ,have improved the life expectancy for young women ;and have necessitated an increased emphasis on issues of survivorship, including family planning. The reported incidence of amenorrhea after systemic therapy for breast cancer varies widely, and is related to age , type, and cumulative dose of administered chemotherapy, and reserve of ovaries and probably time of cycles during chemotherapy. The incidence of permanent amenorrhea following systemic therapy for breast cancer ranges from 33% to76%.

Methods: Premenopausal patients with age up to 40 years with stage I-III ER/PR\_ breast carcinoma to be treated with chemotherapy (CA OR TEC) with or without GnRH analogs started 10 day prior to the first chemotherapy dose(q28day up to 2weeks after later course of chemotherapy). The primary endpoint is2/5 years POF defined as amenorrhea for the prior 6months and post –menopausal FSH level .

RESULTS: 54patients with mean age 35years (19-40) , 28 patient in group I ( Cytoxan +Adriamycin orCA +GnRHa) and 26 patient in group II





(TAXENS+EPIRUBICINE+CYCLOPHOFAMID or TEC + GnRHa ) are studied, After 6month of last course of chemotherapy normal FSH and menses were seen in 46% and 35% ,and after 12 month in 76% and62% , and after 18month in86% and 73% and after 24 month in 93% and 85% and after 30 month in96/5% an92%. In control group of patient (54cases)normal FSH and menses seen in 31%, 61%,72% 80%, and 84%. After 2/5 years ,premature menopause were seen in 3/5% in CA- GnRHa ,7/5% Iin TEC-GnRHa , 16% in control groups.

CONCLIUSION : Administration of GnRHa analog with chemotherapy was associated with less POF and premature menopause, and we recommended this form of adjuvant therapy in young patients with breast carcinoma.





#### The association between Vitamin D status and risk of breast cancer: a casecontrol study

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**Conclusion**: Results from this case-control study support the protective effect of higher serum concentration of 25(OH)D against breast cancer. Moreover, dietary but not total intake of vitamin D was associated with decreased risk of breast cancer.

Key words: Breast cancer, Vitamin D, 25(OH)D

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# The effectiveness digital mammography compared to the analog mammography for breast cancer diagnostic and screening: systematic review

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#### Abstract

Background: Breast cancer is the most common cancer among women and one of the leading causes of death in the productivity ages. Mammography screening is the main method for the diagnosis of breast cancer. While analog mammography counts as the standard method of screening, the digital can be an alternative. This review compared the effectiveness and safety of the technologies.

Method: In order to collect evidence about the effectiveness of analog and digital mammography a systematic review of diagnostic accuracy studies within 1990 to March 2014 was conducted. The most relevant databases including Abstracts of Reviews of Effects (DARE), NHS Economic Evaluation Database (NHS EEDs), Cochrane Database of Systematic Reviews,





TRIP, PubMed and Medline. The key words included mammography and its roots. After identification of appropriate studies the quality was evaluated with QUADAS and meta-analysis was used for extracted data pooling.

Results: From 35,284 related study, 166 were selected after after topic review. Then by removing duplicates and abstract or full paper review, 13 studies were selected for analysis. The quality of 9 studies was good and the rest were at average range. Meta-analysis revealed that the sensitivity of analog and digital mammography in women under 50 years were 0.61 and 0.81 respectively.

Conclusion: Owing to digital mammography's higher sensitivity and regarding to the increasing prevalence of breast cancer in the Iranian women population, especially in 45-50 and higher safety of digital mammography, we can recommend it, instead of the analog for the screening and diagnosis of breast cancer.

Key word: Digital mammography, analog mammography, effectiveness, screening, breast cancer





## R2-04

#### Health-Promoting Lifestyle in Breast Cancer Survivors: In Relation to Depression and Social Support

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#### Abstract:

**Back ground:** Changing to a health-promoting lifestyle is crucial to cancer survivors, both for promoting their health status and for refusing of the diseases and heightening the survival.

**Purpose:** The purpose of this study was to investigate the association among depression, social support and health-promoting behaviors in breast cancer survivors.

**Method:** A cross sectional design was performed. The data were collected by questionnaires from a convenience sample of 158 breast cancer survivors in Urmia in 2014. The data were analyzed implementing descriptive statistics, t-tests, one-way ANOVA, Pearson's correlation coefficients.

**Results:** The mean age of the samples was 45.15 (SD=6.25), ranging from 32 to 66. The mean score for social support and depression was 68.59 (SD=12.32) and 16.18 (SD=9.66) respectively. The mean score for health-promoting lifestyle was 145.23 (SD=32.23). Among the six domains of a health promoting lifestyle, spiritual growth had the highest score (27.93,SD=2.68), while physical activity showed the lowest (21.01,SD=2.11). Significant positive relationships were found among social support(r=0.6023,p<0.0001), depression (r=-0.5113p<0.0001), and health-promoting lifestyle.

**Conclusion:** The findings of this study will accelerate the accessing to the healthy lifestyle in breast cancer survivors who are willing to pursue health promotion h behavior.





# R2-30

# Properties of TGFaL3-SEB fusion protein as a ligand targeted superantigen in breast tumor-bearing mice following intravenous or intratumoral injection

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# Abstract

**Background:** Recent attempts have done specifically target superantigens towards tumors and for the preclinical treatment of a variety of tumors by means of tumor-targeted superantigens (TTS) strategy. In this study we explored the antitumor potency of TTS strategy by fusing the third loop of transforming growth factor  $\alpha$  (TGF $\alpha$ L3) genetically to staphylococcal enterotoxin type B and investigated the possibility of the therapeutic application of TGF $\alpha$ L3-SEB as a new antitumor candidate in mice bearing breast cancer.

**Methods:** Antitumor effect of TGF $\alpha$ L3-SEB in mice bearing breast cancer was examined by intravenous or intratumoral injection. Tumors size volume, long term survival and cytokine production were determined.





**Results:** In the i.t (TGF $\alpha$ L3-SEB)-injected group of mice, reduction of tumor volume and long term survival showed significant differences compared with mice in the i.v. (TGF $\alpha$ L3-SEB)-injected group. Surprisingly, four of eleven mice were cleared thoroughly in 20-25 days after i.t. administration of TGFaL3-SEB fusion protein.

**Conclusion:** TGFaL3-SEB can effectively inhibit the growth of breast tumors by increased cytotoxic T-cell activity, cytokine levels and necrosis induction in mice bearing breast tumor. So these results indicate that TGF $\alpha$ L3-SEB might be a promising antitumor candidate for cancer immunotherapy.

Keywords: Breast Cancer, Immunotherapy, Staphylococal Enterotoxin type B, Transforming Growth Factor  $\alpha$