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OncoLog

Treating Head and Neck Cancer Requires Extraordinary Coordination Among Disciplines

by Dawn Chalaire

Treating cancer always necessitates a balance between eradicating the disease and preserving function and appearance, and this equilibrium is particularly precarious in the treatment of head and neck cancer.

As soon as surgeons became technically capable of performing extensive resections of head and neck tumors, they raised the question of whether the benefits of these procedures were worth the price. Many patients were cured of their cancer but left

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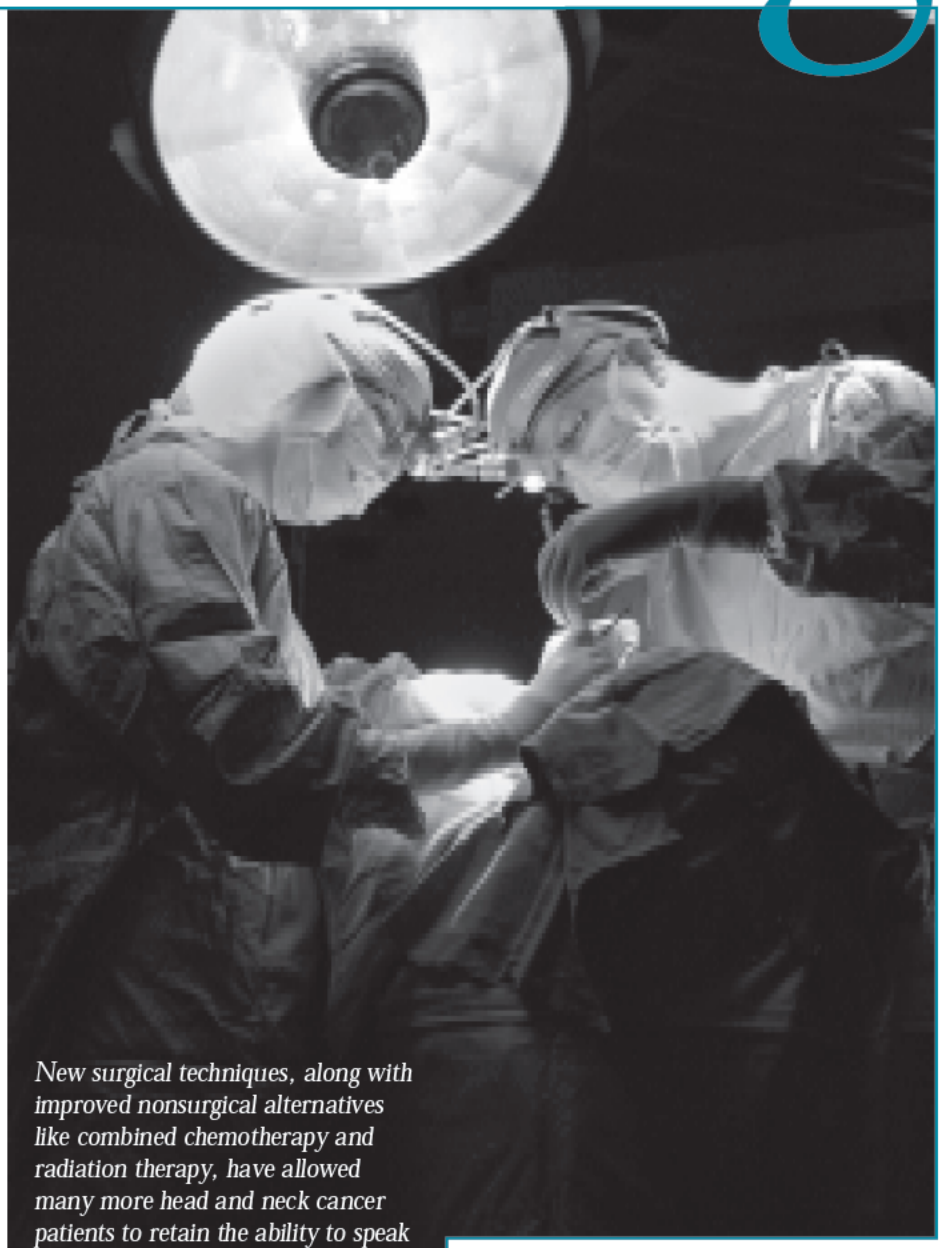

New surgical techniques, along with improved nonsurgical alternatives like combined chemotherapy and radiation therapy, have allowed many more head and neck cancer patients to retain the ability to speak and swallow. Here, **Dr. Randal S. Weber** *(r), chair of the Department of Head and Neck Surgery, is assisted by* **Dr. Kristen Pytynia**.

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Treating Head and Neck Cancer Requires Coordination

(Continued from **page 1***)*

with cosmetic deformities or speech or swallowing impairments. It became clear that combining or replacing surgery with other types of treatment to preserve form and function would require a great deal of coordination among different individuals, departments, and disciplines. And so it was that in the treatment of head and neck tumors, the concept of multidisciplinary care was first conceived and practiced at The University of Texas M. D. Anderson Cancer Center in the late 1960s.

"There was a lot of resistance to multidisciplinary care when it was developed because treatment 30 years ago was very territorial," said Randal S. Weber, M.D., professor and chair of the Department of Head and Neck Surgery. "The true multidisciplinary team concept really grew out of the need to achieve the two goals in cancer care, which are to maximize survival and preserve or restore form and function."

Changes wrought by multidisciplinary care

The advent of multidisciplinary care has led to many changes in the treatment of head and neck cancer. For example, tumors of the posterior tongue and tonsil once often necessitated removal of part or all of the tongue, which frequently left patients unable to swallow properly or speak. Now, these tumors can often be treated with radiation therapy alone or in combination with chemotherapy.

In disease sites where surgery is still the principal treatment approach, new techniques may allow surgeons to limit the amount of tissue they remove. For example, laser surgery can now be performed on patients with cancers of the larynx to avoid a tracheostomy and permanent loss of the voice.

However, conventional surgery is still required to treat some very advanced cancers, or those of the skin, thyroid, salivary glands, and front part of the tongue, because other treatment modalities for these cancers are not as effective. "So we're left with the problem that surgery may still create cosmetic and functional loss," Dr. Weber said.

To minimize and restore the deficits created by surgery, head and neck surgeons consult with plastic surgeons to plan combined extirpative and complex reconstructive procedures using the patient's own soft tissues and bone, which are harvested with blood vessels from a variety of donor sites in the body and attached to blood vessels and other tissues in the head and neck region.

In some cases, when immediate reconstruction is not feasible or desirable, resected facial structures such as the nose or an ear are replaced with prosthetics created in the Department of Head and Neck Surgery's Section of Oncologic Dentistry and Prosthodontics. Researchers in the Department of Plastic Surgery are also investigating the use of engineered tissue that can grow and differentiate around a scaffold to replace missing structures.

Pros and cons of chemotherapy and radiation therapy

Treating head and neck tumors with chemotherapy, radiation therapy, or both has enabled physicians to leave certain organs and structures intact, but organ preservation often comes at a significant cost—acute toxic effects that can create scar tissue and damage nerves, adversely affecting the function of the tongue and the larynx.

"What we've done over the past decade is intensify radiation therapy using a twofold approach. One approach is to deliver hyperfractionation, or more than one radiation treatment a day. The other approach we've taken is adding radiotherapy sensitizers to the treatment regimen, and that is where chemotherapy comes in. Chemotherapy enhances the effect of radiation, but the downside is that it is toxic. So we are preserving organs, but some of those organs don't function so well because of the toxic effects," Dr. Weber said.

In a recent study led by Moshe Maor, M.D., a professor in the Department of Radiation Oncology at M. D. Anderson, investigators found that patients with laryngeal cancer who were treated with radiation therapy and chemotherapy concurrently were less likely to require surgical removal of the voice box within two years after treatment than were patients treated with chemotherapy followed by radiation therapy or radiation therapy alone.

Radiation therapy and chemotherapy can also be used after surgery to improve local-regional control and survival in patients with advanced head and neck tumors. In the May 6, 2004, issue of the *New England Journal of Medicine*, similar results were reported from two randomized clinical trials comparing concurrent chemotherapy and radiation therapy versus radiation therapy alone in postoperative patients with advanced head and neck cancer. In both studies, disease-free survival was longer in the patients who received concurrent therapy; however, patients treated with both radiation therapy and chemotherapy were much more likely to have moderate to severe side effects such as nausea, vomiting, pain, and difficulty swallowing.

Even patients treated with radiation therapy alone may suffer from long-term effects, especially a decrease in saliva production. Besides causing discomfort and making it more difficult to speak and swallow, a decrease in saliva can make the teeth more susceptible to cavities, necessitating long-term prophylaxis, including daily fluoride treatments.

To avoid damaging the salivary glands during radiation therapy, different approaches are under investigation. Intensity-modulated radiation therapy is used to focus the treatment beams on the tumor with less damage to surrounding tissues, such as the salivary glands, than that caused by conventional radiation therapy delivery methods.

Follow-up care of patients treated for head and neck cancer

Patients who have been treated for cancers of the head and neck require frequent and extensive follow-up after treatment. Patients with a history of smoking or alcohol abuse are at high risk for a second primary tumor, including lung cancer, esophageal cancer, or

another tumor in the head and neck region, and should be referred to alcohol and tobacco cessation programs during treatment recovery.

After treatment, many patients are referred to swallowing therapists, who, among other things, perform tests to assess swallowing function, prescribe exercises to facilitate swallowing, and refer patients to clinical nutritionists for recommendations to develop a balanced diet of foods that the patient is able to swallow.

Head and neck cancer is particularly cruel because the tumor and its treatment can affect two elements that are critical for human interactions—the face and the voice. Speech therapists improve or maintain the patients' ability to speak through exercises and voice conservation techniques. For patients who receive a voice prosthesis following loss of the larynx, the therapists can help them become acclimated to the device and show them how to use it properly.

In addition to educating patients about oral hygiene and fluoride prophylaxis after radiation therapy, dental oncologists make adjustments to facial prostheses as needed owing to tissue changes and scar contractures.

New treatment approaches on the horizon

Dr. Weber predicts that in the future, the war on head and neck cancer will be waged on several fronts: identifying patients' genetic risk for developing head and neck cancer and thus selecting them for intensive cancer screening, lifestyle intervention, and drug therapy that may reverse the progression to malignancy; selecting treatment modalities based on the genetic profile of a patient's tumor; and developing more effective, less toxic treatment combinations.

Erich Sturgis, M.D., an assistant professor in the departments of Head and Neck Surgery and Epidemiology, and his colleagues are attempting to identify genetic profiles that increase the risk of thyroid, salivary, and squamous cell cancers of the head and neck.

In a case-control study, Dr. Sturgis and his colleagues demonstrated that exposure to human papillomavirus type 16 (HPV-16) is the primary risk factor for oropharyngeal cancers in individuals who have never smoked. They also showed that this risk is heightened by a mutation in the p53 tumor suppressor gene. However, in contrast to previous studies, they found no evidence that HPV-16 exposure decreased survival duration.

Mutations in the p53 gene are implicated in many types of cancer, and gene therapy involving the adenoviral vector–mediated delivery of the wild-type p53 gene is being studied in head and neck cancer. Gary Clayman, M.D., a professor in the Department of Head and Neck Surgery, is actively investigating intratumoral administration of the normal p53 gene in patients with squamous cell carcinoma of the head and neck.

To improve treatment efficacy while limiting toxicity, biologic agents such as proteins, antibodies, and small molecules are being added to chemotherapy or radiation therapy. In a study led by investigators at the University of Alabama at Birmingham and M. D. Anderson and presented at the American Society of Clinical Oncology annual meeting in June 2004, adding the epidermal growth factor receptor (EGFR) inhibitor cetuximab to radiation therapy was shown to significantly increase survival duration without increasing toxicity in patients with localized head and neck cancer. In addition to EGFR inhibitors, researchers are conducting clinical trials of treatment combinations with antiangiogenic agents.

"These targeted agents can attack pathways specific to cancer cells, which may permit other treatments used in combination to be more effective in eradicating a cancer cell," said Dr. Weber. "We are making definite progress towards our dual goals of eradicating head and neck cancer while at the same time preserving form and function." ●

Dr. Lawrence Ginsberg, *a professor in the Department of Diagnostic Radiology, presents to colleagues at a weekly multidisciplinary head and neck cancer seminar.*

FOR MORE INFORMATION, *contact Dr. Weber at (713) 745-0497.*

Researchers Seek to Understand the Mysteries of Uterine Cancer and to Find Better Treatments

by Sunni Hosemann

Although uterine cancer is the most common gynecologic malignancy in the United States—more common than either cervical or ovarian cancer—fallacies regarding the disease abound. Some women mistakenly believe that their Papanicolaou's test will screen them for uterine cancer when in fact there is no routine screening test for this disease. Others are unaware that heavier than normal menstrual bleeding and bleeding between periods may be symptoms of uterine cancer.

Fortunately, most localized uterine cancers have a high (>90%) cure rate. However, the prognosis is grave for women with metastatic or aggressive forms of uterine cancer. Fewer than 20% of women whose disease has spread into the pelvis will survive five years. "We just don't have very effective treatments for advanced or recurrent uterine cancers," said Lois Ramondetta, M.D., an assistant professor in the Department of Gynecologic Oncology at The University of Texas M. D. Anderson Cancer Center.

More than 40,000 women in the U.S. will be diagnosed with uterine cancer in 2004. While most women are 60 years or older at diagnosis, 20% to 25% are premenopausal. "For some reason that we don't yet understand, we are seeing more women with this disease at a younger age, in their 30s and 40s," noted Anuja Jhingran, M.D., an associate professor in the Division of Radiation Oncology, whose research focuses on gynecologic tumors. "And one of the other mysteries of the disease is that older women [>70 years] have a poorer prognosis than younger women when compared stage-for-stage. This is unlike many other cancers."

To solve the mysteries of uterine cancer and to develop more effective treatments for metastatic and aggressive disease, researchers at M. D. Anderson are investigating new treatment and prevention strategies as well as the disease's biology.

Treatment updates

The majority of cancers arising in the uterus are endometrioid adenocarcinomas. These have an excellent prognosis compared to more aggressive types such as uterine sarcomas, papillary serous and clear cell carcinomas, and malignant mixed mullerian tumors. (Serous and clear cell carcinomas—which tend to occur in older women and are often at an advanced stage when found—behave the most aggressively and need to be treated differently than other uterine tumors.)

For early-stage endometrial cancers that are considered medically inoperable, radiation therapy is the primary treatment; for all others, total abdominal hysterectomy with bilateral salpingo-oophorectomy and lymph node dissection remains the standard treatment. At M. D. Anderson, some uterine lymph node dissections are performed laparoscopically, with no increased risks and with reduced morbidity.

Patients with intermediate- or high-risk uterine tumors may receive adjuvant radiation to the pelvis, depending on the final pathology, to reduce the risk of pelvic or vaginal recurrence. Intensity-modulated radiation therapy, which delivers very focused radiation only to the target area, is a promising new development. "In small studies so far, we have seen much reduced lower bowel toxicity," said Dr. Jhingran. "This may seem like a small advance, but for women who suffer posttreatment diarrhea, it is a huge improvement in quality of life." This technique will be part of a large, upcoming Radiation Therapy Oncology Group study.

Vaginal cuff radiation is a patient-friendly advance that can be used to treat patients with intermediate-risk disease that has been fully staged or as a boost for patients with high-risk disease that has been treated with external-beam radiation therapy to the pelvis. In this therapy, a tampon-like device called a vaginal dome cylinder is inserted into the vagina where it delivers high-dose radiation.

Chemotherapy options with a good chance of cure or palliation are not yet available for patients with uterine cancer.

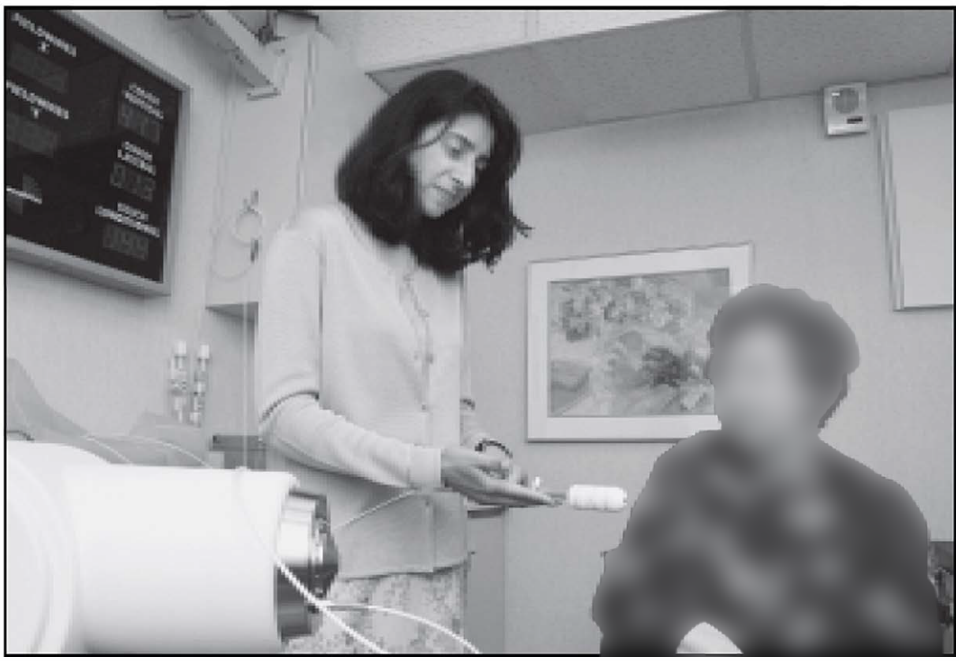
Risk factors for uterine cancer

For most women, the lifetime risk of uterine cancer is 3%, but for women with hereditary nonpolyposis colorectal cancer (HNPCC), the lifetime risk jumps to 40%.

Obesity is another significant risk factor; the risk of endometrial cancer triples for a woman who is 30 pounds overweight and increases five times for a woman who is 50 pounds overweight. "Of all cancers, endometrial cancer is most strongly linked to obesity," said Karen Lu, M.D., an assistant professor in the Department of Gynecologic Oncology. "Any obese woman who has irregular periods should have an endometrial biopsy."

Prolonged exposure to unopposed estrogen—either endogenous or exogenous—significantly increases a woman's risk of uterine cancer. This includes obese women, those treated with hormone replacement therapy consisting of estrogen without progesterone, and women who have had an early menarche (before age 12) or late menopause (after age 52).

According to a recent National Surgical Adjuvant Bowel and Breast Project (NSABP) trial, uterine cancer



Dr. Anuja Jhingran *(l), associate professor in the Division of Radiation Oncology, explains vaginal cuff radiation to patient* [redacted]. *In this therapy, a device called a vaginal dome cylinder (shown) is inserted into the vagina to deliver high-dose radiation.*

developed in some users of tamoxifen. However, this is not a reason to discontinue its use, said Dr. Ramondetta, because the benefits of preventing recurrent breast cancer outweigh the increased risk of endometrial cancer. In the NSABP trial, all cases of endometrial cancer were low grade and early stage (i.e., curable) and occurred in patients who had used tamoxifen for more than five years.

Other risk factors are hypertension, diabetes type 1 and type 2, hypothyroidism, and nulliparity. Women with a family history of uterine cancer or a personal history of breast or colon cancer are considered to be at higher risk than women in the general population.

Monitoring and reducing risk

Because there is no recommended routine screening test for uterine cancers, all women should be queried by their gynecologists about unusual menstrual bleeding, irregular periods, or spotting, and women at high risk should be advised to report any unusual bleeding.

Women who have HNPCC or a family history of uterine cancer should start being monitored between ages 25 and 35 years, with an annual pelvic examination, transvaginal ultrasonography, and endometrial biopsy.

No large studies have produced guidelines for reducing or managing the risk of uterine cancer, but both surgical and medical options are available. Prophylactic surgery—a total hysterectomy and salpingo-oophorectomy—is recommended for women with confirmed HNPCC who have completed childbearing or who are in their mid- to late 40s. For others, chemoprevention is an option that may be of interest; oral contraceptives and progestins have been shown to reduce uterine cancer risk. A National Cancer Institute (NCI) trial available at M. D. Anderson and two other sites will compare the effectiveness of contraceptive agents LoOvral and Depo-Provera in preventing uterine cancer.

The question of how best to monitor women who are being treated with tamoxifen remains unanswered. "At M. D. Anderson, we do not routinely screen women treated with tamoxifen who are asymptomatic," said Dr. Ramondetta. "We only recommend endometrial biopsy for those who have vaginal bleeding." In addition, because of the submucosal edema that can develop in patients taking this medication, many experts recommend that a transvaginal ultrasound measurement of 8 mm—rather than the 5-mm criterion used for other endometrial biopsies—be used to determine whether a patient should undergo biopsy.

New research

The NCI recently awarded a Specialized Programs of Research Excellence (SPORE) grant—the first ever for uterine cancer—to researchers at M. D. Anderson, who plan to answer some of the many questions about this disease and its treatment. "We will study prevention, novel treatments, and gain a better knowledge of the biology of the disease with this funding," said Dr. Lu.

The group is looking at new hormonal therapies, including mifepristone (RU486), as well as new combinations of radiation therapy and chemotherapy. One crucial area of research that will be investigated is the molecular aspect of this disease. "We know that 75% of uterine cancers have a good prognosis and can be cured by surgery and/or radiation therapy," said Russell Broaddus, M.D., Ph.D., an assistant professor in the Division of Pathology. But for patients with aggressive variants, the outlook is poor.

"We want to know more about aggressive versus nonaggressive types of this disease," Dr. Broaddus said. He noted that uterine cancer, unlike many other cancers, is not just an oncology problem; lipid metabolism, insulin biochemistry, and hormones also play a crucial role. "We must understand the endocrine and biochemical aspects," he said. Therefore, oncologists, endocrinologists, internists, obesity specialists, and pharmacologists, among others, will contribute to the uterine cancer studies.

In addition to receiving funding from the SPORE grant, researchers from M. D. Anderson's Uterine Cancer Research Program will also receive proceeds from sales of the cookbook *From Home Plate to Your Plate*, which was created by the wives of Houston Astros baseball players to benefit uterine cancer research.

Thanks to these contributions, researchers may finally have the resources they need to defeat this disease. ●

FOR MORE INFORMATION, *contact Dr. Ramondetta at (713) 745-0307, Dr. Jhingran at (713) 563-2347, Dr. Lu at (713) 745-8902, or Dr. Broaddus at (713) 745-2794.*

Mammography VS. Magnetic Resonance Imaging

A Breast Cancer Prevention Specialist and a Radiologist Weigh in on the Recent Debate

by David Galloway

Recent news reports have some women questioning whether mammographic screening for breast cancer has been made obsolete by magnetic resonance imaging (MRI). The answer is quite simply no, according to Therese Bevers, M.D., an associate professor in the Department of Clinical Cancer Prevention at The University of Texas M. D. Anderson Cancer Center.

The question arose from reports about a Dutch study published in the *New England Journal of Medicine* in July. "The study that was done actually looked at women at increased risk and divided them into three groups," said Dr. Bevers, a breast cancer prevention specialist who is also director of the Cancer Prevention Center at M. D. Anderson. "One group was women with a known genetic predisposition, BRCA1 or BRCA2. Another group was high risk but without an inherited predisposition. And the third group was moderate risk, higher than average but not as high as the others. The only population that MRI showed a benefit for was women with an inherited mutation. But it really didn't get translated that way in the press, so what a lot of women heard was 'MRI is better than mammography.'"

In truth, the study found that for screening in those women with the known genetic predisposition to breast cancer, MRI may have a role, but only in addition to mammography. "MRI certainly should not take the place of mammography," Dr. Bevers said.

According to Gary J. Whitman, M.D., an associate professor in the Department of Diagnostic Radiology, "MRI should not be used instead of mammography because mammography finds some cancers that are not identified with MRI." For example, in the Dutch study, MRI detected 32 breast cancers but missed 13; eight of the 13 cancers missed by MRI were found on mammography, including five cases of ductal carcinoma in situ (DCIS).

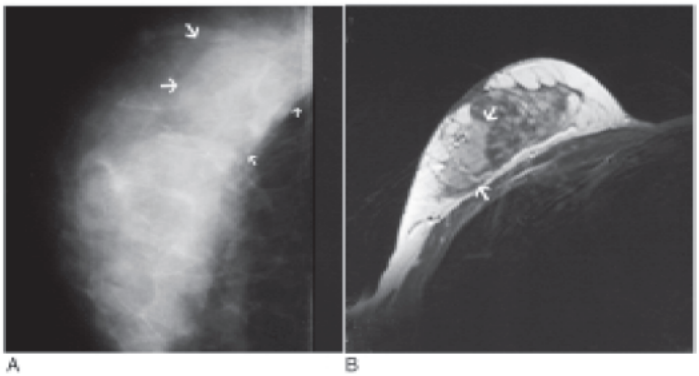
MRI is not good at detecting DCIS, the earliest form of breast cancer. "Mammography is really quite good at that," Dr. Bevers said. "So if MRI were used in place of mammography, it could miss a lesion that, with treatment, is essentially curable." On the other end of the spectrum, MRI leads to many false-positive findings in various areas of the breast in response to cyclic hormonal changes.

"If women do undergo breast MRI, the studies should be performed at centers capable of performing MRI-guided needle localizations and MRI-guided core needle biopsies," Dr. Whitman cautioned.

Sonography is another imaging modality drawing considerable interest in screening for breast cancer. It already is widely used in diagnosis and staging, but its role in screening is not yet clear. M. D. Anderson is participating in a multi-institutional study of sonography as an adjunct to mammography in screening for breast cancer. Dr. Whitman is the principal investigator for M. D. Anderson in the study, which is seeking 2,808 high-risk women at 20 institutions.

In recent years, studies have raised concerns about the limitations of mammographic screening for breast cancer, including the detection of clinically irrelevant DCIS, which can lead to overtreatment; the use of ionizing radiation; and a somewhat high false-positive rate. Despite these concerns, mammography in conjunction with physical examination is still the preferred method of screening for breast cancer.

However, the United States is facing what Dr. Bevers calls a national crisis in the availability of screening mammography. "It's an area that not many radiologists are going into, and not many radiology facilities want to do it," she said, citing the high legal liability arising from failure to diagnose an existing cancer and the fact that the cost of mammography is much higher than the Medicare reimbursement rate. Some proposed solutions to the problem include lobbying for higher Medicare reimbursements and having non-physician radiology interpreters do the initial screening. Whatever it takes to overcome this crisis, Dr. Bevers believes it will come from physicians. "We need to be part of the solution," she said. ●



Mammography and magnetic resonance imaging (MRI) offer different strengths and weaknesses in breast cancer screening and diagnosis. Shown here is a mammogram (A) and an MRI scan (B) of the right breast of a 56-year-old woman. While MRI detected a mass (large arrows in B) that was obscured by dense tissue on mammography (large arrows in A), the mammogram detected calcifications (small arrows in A) that were not seen on MRI.

FOR MORE INFORMATION, *contact Dr. Bevers at (713) 745-8048 or Dr. Whitman at (713) 745-3520.*

HOUSE•CALL

The Role of Alcohol and Tobacco in Head and Neck Cancer

By now, everyone knows that smoking increases a person's risk of cancer, in particular lung cancer and head and neck cancer. The connection between head and neck cancers and tobacco use has been well documented (85% of head and neck cancers, which 45,000 Americans are diagnosed with each year, are related to tobacco use).

Most people are also aware that excessive consumption of alcohol is harmful—the risk of cancers in the mouth, throat, esophagus, liver, and breast increases in those who have an average of more than two drinks per day.

What is not so well known is that alcohol consumption combined with tobacco use is especially dangerous. People who smoke and drink are many times more likely to have cancers of the head and neck than those who do not.

How alcohol and tobacco use can lead to cancer

Researchers know that the lining of mucus that protects head and neck structures such as the mouth and throat can be damaged by exposure to tobacco and alcohol. Furthermore, they have found that to repair this damage, the cells in the lining must grow faster than normal. Chemicals in tobacco damage DNA and thus impede its ability to send instructions for cell repair and growth. Alcohol has not been proven to damage DNA, but it has been shown to aid and increase the penetration of DNA-damaging chemicals into cells. Therefore, it is easy to see that the combination of drinking and tobacco use can be a very harmful one.

■ *Squamous cell carcinoma*

The negative impact of using alcohol and tobacco is most vivid when one looks at studies of squamous cell carcinoma. In the head and neck, the development of this type of cancer is most often associated with alcohol and tobacco use. In fact, the risk of this cancer is 15 times greater in those who use alcohol and tobacco than in those who do not.

■ *Cancer of the esophagus*

Using any tobacco product—cigarettes, cigars, pipes, chewing tobacco, or snuff—increases one's risk of cancer of the esophagus. Specifically, the risk of esophageal adenocarcinoma is doubled in those who smoke at least one pack of cigarettes a day when compared with nonsmokers, and smoking is linked with more than half of all cases of squamous cell carcinomas of the esophagus. Although alcohol use is not as much of a risk factor for these cancers as tobacco use is, the combination of the two carries a greater risk than does either factor alone.

■ *Cancers of the larynx and hypopharynx*

Use of tobacco is the primary risk factor for cancers of the larynx (also known as the voice box) and the hypopharynx, or lower throat. Also, heavy drinkers have a much greater risk of laryngeal cancer than nondrinkers do. Again, use of both alcohol and tobacco multiplies the risk of these cancers. In fact, some studies have shown that individuals who smoke and drink have a risk of laryngeal and hypopharyngeal cancers that is 100 times greater than that in individuals who do not smoke or drink.

■ *Oral cavity and oropharyngeal cancer*

As many as 90% of patients with oral cavity (mouth) or oropharyngeal (upper throat) cancer are smokers or smokeless tobacco users, and 75% to 80% of these patients are heavy drinkers. The combination of tobacco and alcohol use is the deadliest risk factor for these cancers.

Recommendations

Researchers and physicians recommend the avoidance of tobacco in all forms, as it accounts for at least 30% of all cancer deaths and is the number one avoidable cause of illness and death in the United States. Men who drink alcohol should limit their intake to two drinks per day on average, whereas women should average no more than one. A drink is defined as 12 ounces of beer, 5 ounces of wine, or 1.5 ounces of 80-proof distilled spirits.

People who smoke and drink heavily should get regular medical checkups and watch for the warning signs of head and neck cancer, which include swollen lymph nodes in the neck, persistent sores and swelling in the mouth, voice changes, blood in the phlegm or saliva, trouble swallowing, constant throat pain or earaches, and any skin changes on the face, scalp, or neck. If caught in time, many cancers of the head and neck are curable. ●

For more information, contact your physician or contact the M. D. Anderson Information Line:

(800) 392-1611, Option 3, *within the United States, or*

(713) 792-3245 *in Houston and outside the United States.*

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Sexuality after Gynecologic Cancer

Karen Basen-Engquist, Ph.D.
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For many women who survive gynecologic cancers and their treatment, life after cancer includes learning to cope with serious, long-term sexual problems. In a survey of 200 survivors of ovarian cancer, more than half of the women reported that their sex lives had been negatively affected by cancer or its treatment, and 75% described their sex lives as poor to adequate. In studies of women treated for cervical or endometrial cancer, anywhere from 31% to 88% reported problems with sexuality, particularly those who underwent radiotherapy.

Survivors of gynecologic cancer report a range of sexual difficulties; decreased libido, vaginal dryness, and pain during intercourse are the most prevalent. These problems can arise from multiple causes, including vaginal stenosis after radiotherapy, surgical or treatment-related menopause, disturbed body image, and increased psychologic distress.

Given the high prevalence of sexual difficulties after gynecologic cancer, health-care providers should ask patients about sexual functioning problems as a normal part of their follow-up examination. Many patients are reluctant to ask questions, but they need information about the possible causes of problems and how to overcome them. For example, they need to know that vaginal dryness is a common outcome after surgery to remove the ovaries and that various lubricants or hormonal supplements can help remedy the problem. Dilators are helpful to women who have had pelvic radiation, to prevent or treat narrowing of the vagina; however, patients may need instruction in how to use them. Health-care providers should follow up with patients at the next appointment to determine whether the intervention prescribed is working and to suggest alternatives or provide assistance if needed.

Psychoeducational group interventions, which provide opportunities for emotional expression and problem solving, have been shown to improve sexual functioning among gynecologic cancer survivors. Such group programs are not readily available, however, and so some patients and their partners may instead benefit from working with a sex therapist. The American Association of Sex Educators, Counselors, and Therapists (http://www.aasect.org) can assist with identifying a credentialed sex therapy professional.

The American Cancer Society has published two books on sexuality after cancer, one for men and one for women; to request a free copy call the American Cancer Society at 1-800-ACS-2345. The book *Sexuality and Fertility After Cancer*, by Leslie R. Schover, Ph.D., (John Wiley & Sons, 1997) is also an excellent resource.

Through communication, appropriate medical interventions, and education, health-care teams can give survivors of gynecologic cancer the support they need to return to healthy and enjoyable sexual function.

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