

Bilateral Synchronous Breast Cancer

Ana Šoštarić Zadro¹, Jurica Fudurić², Ivan Frketić², Matija Miletić², Zvonko Zadro³, Miran Martinac³, Žarko Rašić³, Mario Kordić⁴ and Damir Rošić⁵

¹ Special Hospital for Lung Diseases, Department of Radiology, Zagreb, Croatia

² General Hospital Karlovac, Department of Surgery, Karlovac, Croatia

³ University of Zagreb, »Sveti Duh« University Hospital, Department of Surgery Zagreb, Croatia

⁴ University Hospital Mostar, Department of Urology, Mostar, Bosna and Herzegovina

⁵ University of Zagreb, School of Medicine, Department of Anatomy, Zagreb, Croatia

ABSTRACT

We report a rare case of synchronous bilateral breast cancer in 79-year old female patient treated at our hospital. The tumors were discovered one year ago after a complete clinical and radiological (mammography, US) examination with cytopunction of tumor masses. Results came back and showed carcinomas of both breasts. Patient underwent surgical removal of the both breasts with bilateral axillary lymphadenectomy. Later histological examination confirmed earlier diagnosis of invasive ductal carcinoma in both breasts in a G3 stage. After surgical removal of the tumors patient was also treated with radiotherapy. One year after bilateral mastectomy and axillary lymphadenectomy, clinical and radiological examination that included mammography and ultrasound of breast with tumor marker C15-3 which was 2.8, we did not found recurrence of the tumor.

Key words: *synchronous, bilateral, carcinoma, breast*

Introduction

Rare clinical entity ass bilateral breast cancer is event that accounts for approximately for 0.3–12% of all breast cancers^{1,2}. It is defined as synchronous when contralateral cancer occurs within time period of 6 months or by some authors in time period of 3 months³.

Risk factors that are associated with bilateral breast cancer include positive familial history or heredity, young age, lobular and invasive histological findings, multicentric localization and radiation exposure. Some authors and reports showed that prognosis of bilateral breast cancer is worse than that with unilateral³. But recent results and research have found no difference in survival for women with bilateral breast cancer⁴, on the contrary, small study in Japan and their data reveal that metachronous bilateral breast cancer is associated with shorter disease – free survival than synchronous or unilateral breast cancer although overall survival is not different among patients with unilateral and those with bilateral⁵.

We present a case of bilateral synchronous breast cancer with same histological findings.

Case Report

We present a case of 79-year-old female patient with positive familial history for breast cancer in which, routine physical examinations found clear signs of palpable tumorous masses in both breasts. Three months after initial examination she visited surgeon with mammography and ultrasound of the both breasts. The mammography clearly showed two solid like formation in the right breast, 40 and 30 mm in diameter and one solid formation in the left breast 20 mm in size (Figures 1 and 2). Ultrasound of the right breast showed in the upper right quadrant one formation with infiltrative characteristics same size as described earlier and one formation 30 mm in size with same characteristics. Left breast had in the upper lateral quadrant 16 mm formation in size with one large lymph node in the inframammary region.

Leading sign of the breast cancer was presence of the skin retraction with mild inflammatory reaction on the both breasts and palpable both axillary lymph nodes. A cytopunction of the breast masses was performed and confirmed tumorous cells. After talking with the patient and getting to know the patient findings suggest further

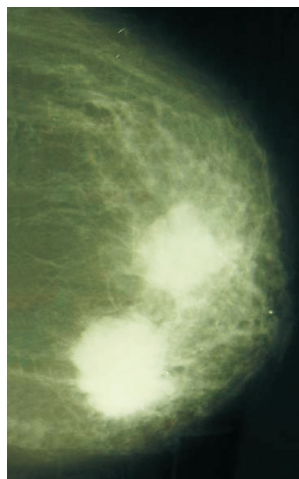


Fig. 1. Mammogram of the right breast showing two large tumorous formations.

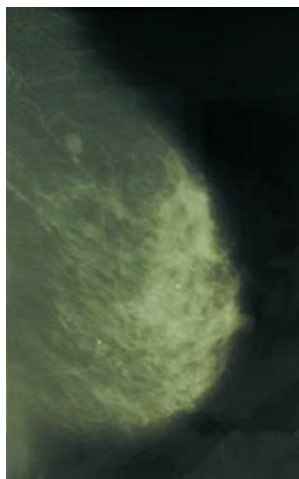


Fig. 2. Mammogram of the left breast showing one tumor formation in the outer quadrants with visible two smaller nodes 5 and 10 mm in diameter.

treatment in the form of a biopsy ex tempore of these masses. The pathologist received two samples from right breast both sizes approximately 45 mm in diameter and one from the left breast 30 mm in diameter. In both breast pathologist confirmed invasive cancer of the breast. Based on preoperative discussion with the patient we performed a bilateral mastectomy with evacuation of the both axillary lymph nodes. The postoperative period passed without complications, as well as the rehabilitation process. What followed was a detailed examination of breast tissue and lymph nodes in both axillary regions by the pathologist. From right axillary region pathologist found 23 lymphatic nodes with maximum diameter of 20 mm in size in which three of them were infiltrated by tumor without penetrating through capsule. From left axillary region there were 13 nodes with maximum diameter of 20 mm without any signs of tumor infiltration.

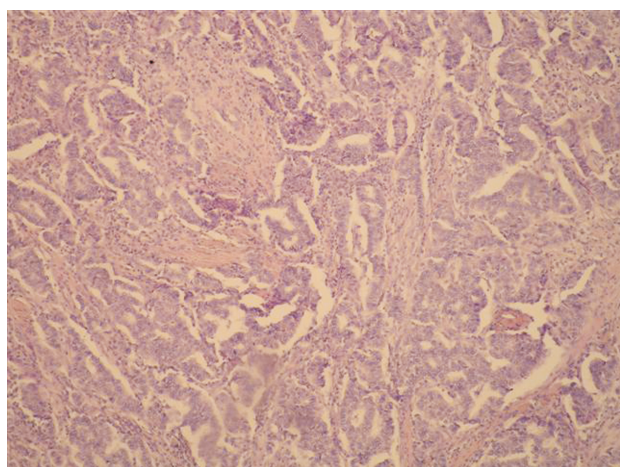


Fig. 3. HE stain of right breast demonstrating small, blue cells with hyperchromatic nuclei with the present perineural and lymphovascular invasion, Bloom-Richardson grade 3.

So, histopathological examination of the right breast confirmed invasive ductal carcinoma with positive lymphatic nodes, negative estrogen and progesterone receptors cells, positive HER2 and Ki67 was 32.5%.

The lesion from the left breast also confirmed invasive ductal carcinoma but with negative axillary lymphatic nodes, negative progesterone receptor cells, 20% positive estrogen receptor cells, negative HER2 and Ki67 proliferative index was 34% (Figure 3 and 4).

After surgical therapy we consulted an oncologist who reviewed medical history and histopathological finding, and despite patient high age recommended radiation therapy which was performed exactly a year later after palpable tumor was revealed.

Patient very well tolerated therapy and on the regular surgical exams there were no signs of disease recurrence.

Discussion and Conclusion

Breast cancers can present themselves either like unilateral solid tissue masses or they can affect both breasts. The incidence for breast cancer varies from 1.4% to 12%⁶. Bilateral breast cancers can be synchronous or metachronous, which are more often found in female population. Synchronous breast cancers account for approximately 0.2 to 2% of all breast tumors⁷. This large variation in incidence is because of conflicting cut of times^{8,9}. Some studies show that patients with BBC have worse survival prognosis, but other authors came to conclusion that this is not true. Patient with synchronous bilateral breast cancer have similar prognosis then those with unilateral carcinoma¹⁰. The most common histological subtype of the bilateral breast carcinoma is infiltrating ductal carcinoma as earlier described in our case report¹¹.

Our patient had palpable tumor in both breasts with increased axillary lymph nodes. Preoperative it has been done mammography, ultrasound, cytological puncture and

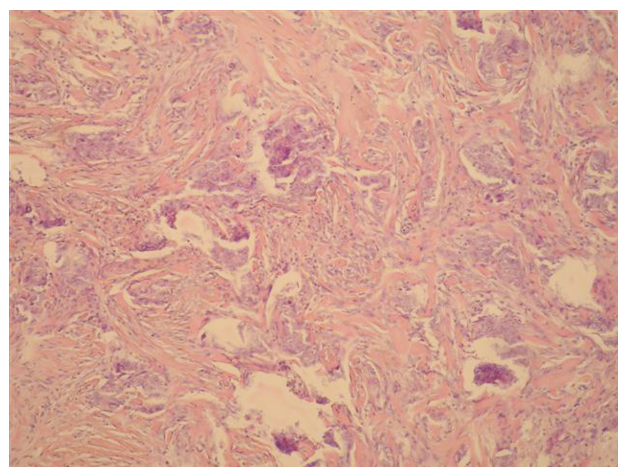


Fig. 4. HE stain of left breast tissue with same histological findings.

then a biopsy (ex tempore) of all three formations. A biopsy confirmed invasive ductal carcinoma in both breasts and bilateral mastectomy with evacuation of lymph nodes from both axillary regions was indicated. The patient

responded well to admitted therapy. On regular examinations through the next year there was no evidence of recurrence.

REFERENCES

1. BRANICA VB, SMOJVER JS, JUROŠ Z, NERALIĆ MI, KRIŽANAC Š, Coll Antropol, 34 (2010) 701. — 2. TOUSIMIS E, Breast Cancer Online, 8 (2005), accessed 29.04.2005. Available from: URL: www.bco.org — 3. PRVULOVIĆ I, KARDUM-SKELIN, SUSTERČIĆ D, JAKIĆ-RAZUMOVĆ J, MANOJLOVIĆ S, Coll Antropol, 34 (2010) 99. — 4. BECKMANN KR, BUCKINGHAM J, CRAFT P, DAHLSTROM JE, ZHANG Y, RODER D, HARRIS RS, the Breast, 20 (2011) 158. DOI: 10.1016/j.breast.2010.10.004. — 5. TAKAHASHI H, WATANABE K, TAKAHASHI M, TAGUCHI K, SASAKI F, TODO S, Breast Cancer, 12 (2005) 196. DOI: 10.2325/jbcs.12.196. — 6. KIM MJ, KIM EK, KWAK JY, PARK BW, KIM SI, OH KK, Am J Roentgenol, 190 (2008) 208. DOI: 10.2214/AJR.07.2714. —
7. DALAL AK, GUPTA A, DALAL U, SINGAL R, ATTRI AK, JAIN P, SHARMA A, GUPTA S, J Med Life, 4 (2011) 94. — 8. KHAIRY GA, GURAYA SY, AHMED ME, AHMED MA, Saudi Med J, 26 (2005) 612. — 9. INTRA M, ROTMENST N, VUJALE G, MARIANI L, BONANNI B, MASTROPASQUA M, GALIMBERTI V, GENNARI R, VERONESI P, COLLEONI M, TOUSIMISE E, GALLI A, GOLDBIRSCH A, VERONESI U, Cancer, 101 (2004) 905. DOI: 10.1002/encr.20452. — 10. KOLLIAS J, ELLIS IO, ELSTON CW, BAMEY RW, World J Surg, 25 (2001) 1117. DOI: 10.1007/BF03215857. — 11. ČUPIĆ DF, TEŠAR EC, ILLJAŠ KM, NEMRAVA J, KOVAČEVIĆ M, Coll Antropol, 35 (2011) 2.

J. Fudurić

*General Hospital Karlovac, Department of Surgery, Dr. Andrije Štampara 3, 47000 Karlovac, Croatia
e-mail: juricafuduric@yahoo.com*

BILATERALNI SINHRONI RAK DOJKE – PRIKAZ SLUČAJA

SAŽETAK

Prikazujemo rijedak slučaj istovremenog obostranog dukalnog karcinoma dojke u 79-godišnje pacijentice liječne u našoj ustanovi. Tumorozne tvorbe su otkrivene prije godinu dana i to na temelju kompletnog kliničkog, radiološkog (mamografija, UZV) i citološkog pregleda. Po dobivenim rezultatima ustanovilo se da je riječ o obostranim karcinomima dojke. Pacijentici se kirurški učini obostrana mastektomija uz obostranu aksilarnu limfadenektomiju. Kasniji histološki nalaz potvrdi ranije postavljenu dijagnozu karcinoma i to invazivnog dukalnog karcinoma G3. Po kirurškom odstranjenju tumora u liječenje je također uključena i terapija zračenjem. Godinu dana po obostranoj mastektomiji i aksilarnoj limfadenektomiji, kliničkim, radiološkim pregledom koji uključuje mamografiju i UZV pregled te vrijednostima tumorskog markera C15-3 koje su iznosile 2,8 ne nađe se recidiva tumora.