Bilateral synchronous breast cancer. *A clinical dilemma*

Salman Y. Guraya, *FRCS,*
Gamal A. Khairy, *FRCS.*

Synchronous bilateral breast cancer is uncommon (1-2.6% of all patients with breast cancer) but its incidence is likely to rise due to earlier detection by mammography and longer survival rates of patients with unilateral breast cancer. The striking feature of the disease is reflected by the worse histological grade which necessitates an urgent risk-reduction multi disciplinary approach for such patients. The incidence of synchronous bilateral breast cancer (SBBC) ranges from 0.8-3%.[1] Patients with an index breast cancer have an increased risk of the development of a second breast cancer. The calculated average risk of development of a second breast cancer is approximately 0.7% per year and the cumulative incidence of bilateral breast cancer (BBC), synchronous and metachronous, has been reported to be 4-26%.[2] There is no general consensus of the optimal treatment for SBBC which is defined as cancer diagnosed in both breasts simultaneously or within 3 months of the diagnosis of the first tumor.[3] The patients are often treated with bilateral mastectomy rather than breast conservation and the prognosis is worse than a unilateral breast cancer.

We managed a 42-year-old Filipino lady at King Khalid University Hospital Riyadh, Kingdom of Saudi Arabia, admitted with the history of a palpable lump in her left breast found accidentally at approximately 3 months back. The patient had 3 children and she breast-fed all of them. Her family history was unremarkable of breast cancer, and she did not take contraceptive pills in the past. Examination of the left breast revealed a 5x6 cm firm; non-tender mass in upper and inner quadrants of the breast with ill defined edges. At the same time, on physician's examination, the patient's right breast also demonstrated a 4x3 cm hard lump with irregular borders in upper and outer quadrants. There was no associated nipple retraction, skin tethering, muscular attachment or axillary lymphadenopathy on both sides. The mammographic findings of both breasts are illustrated in **Figures 1 and 2**. Fine needle aspiration cytology (FNAC) reported infiltrating ductal carcinoma of the left breast and suspicious dysplastic cells in the right breast. Radionuclide bone scan, computerized tomography scan of the chest and abdomen were unremarkable and her serum CA 153 was found to be 34.6 (normal is 0-22). The patient underwent left mastectomy with

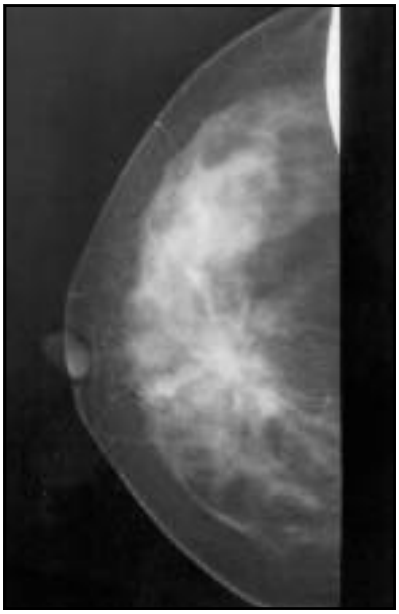

Figure 1 - Mammogram of the right breast revealed a 3.5x3 cm irregular mass lesion with tissue distortion in retro areolar region. The striking feature was the prominent spiculation radiating away from the lesion.

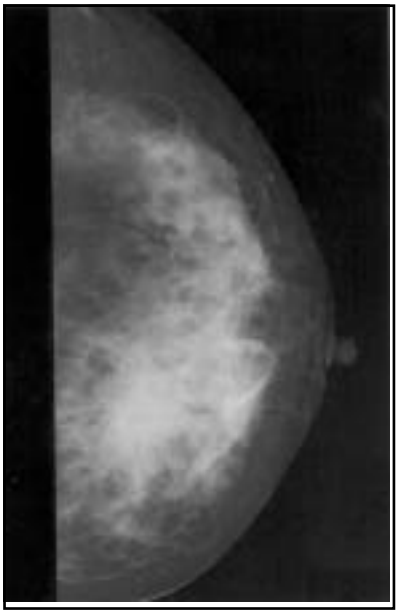

Figure 2 - Mammographic findings of the left breast demonstrated a round opacity with pronounced parenchymal distortion in the central area of the breast.

level II axillary dissection and wide local excision of the right breast mass. She had uneventful postoperative recovery. Histopathological examination reported grade III infiltrating ductal carcinoma with lymphovascular invasion and free resection margins in both breasts. Four out of 28 left axillary lymph nodes were involved by metastatic spread. The tumors showed positivity for estrogen and progesterone receptors and C-erb. Later on, medical oncology consultation was sought for further adjuvant therapy.

In general, patients with SBBC tend to have a worse prognosis. Jobsen et al[1] reported the 10-year disease-specific survival of patients with SBBC to be 41% as opposed to 84% for those with unilateral breast cancer. As illustrated in a retrospective review of patients with bilateral breast cancer,[4] contra lateral breast carcinomas were diagnosed by mammogram at an earlier stage than cancers of the index breast. This observation emphasizes the incredible diagnostic yield of mammography and reinforces the need for mammographic screening of the contralateral breast in patients with unilateral breast cancer. The incidence of bilateral breast cancer is expected to rise as a direct result of improved diagnostic capabilities and therefore a greater risk free interval. Contra lateral prophylactic mastectomy and mirror image breast biopsy had been frequently advocated in the past for patients with bilateral breast cancer. Although mirror image breast biopsy may diagnose contra lateral breast cancer in a substantial number of patients, most breast surgeons did not perform this procedure mainly these studies have not shown improved survival with this modality.[5] Similarly, contra lateral prophylactic mastectomy is not routinely indicated except in patients with difficult breast examinations due to pronounced fibrocystic disease and in subjects with a high level of anxiety.[6] We performed left mastectomy and right lumpectomy as bilateral mastectomy would have been more mutilating for the patient with no added advantage. Kollias et al[7] have concluded in their series of 3210 cases that survival of women with bilateral breast cancer was worse than those with unilateral disease. A high total-body cancer burden, multi-focal disease and immense psychological impact contribute to such adverse prognosis and jeopardize the survival perspective. The histological result of our patient showed grade III infiltrating ductal carcinoma with lymphovascular invasion in both breasts. This finding is consistent with the published reports that bilateral breast cancers manifest at an advanced stage with a worse histological grade 1.

In conclusion, synchronous bilateral breast cancer is a clinical dilemma. Liberal use of mammography for surveillance of breast cancer is recommended and breast conserving surgery, rather than bilateral mastectomies is attended with favorable results.

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From The Division of General Surgery, Department of Surgery, College of Medicine and King Khalid University Hospital, King Saud University, Riyadh, Kingdom of Saudi Arabia. Address correspondence and reprint requests to: Dr. Salman Y. Guraya, PO Box 286896, Riyadh 11323, Kingdom of Saudi Arabia. Tel. +966 (1) 4671474. Fax. +966 (1) 4679493. E-mail: drsyg7@yahoo.com

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