Abstract Synchronous bilateral invasive breast cancer is a rare event. The etiology of bilateral breast cancer is uncertain, but most evidence supports independent tumors and not metastasis spread from one of the primary tumors. The prognosis of bilateral breast cancer was once thought to be poor, but recent data has suggested a similar survival for bilateral breast cancers as compared to unilateral disease.

Keywords: Bilateral breast cancer; Invasive breast cancer; Synchronous
tumor is with mammography. This supports the role of careful screening of the contralateral breast and follow-up of all patients diagnosed with breast cancer [4,5]. The most common histologic subtype is infiltrating ductal carcinoma; however, the incidence of invasive lobular carcinoma and the finding of lobular carcinoma in situ (LCIS) is slightly higher amongst synchronous bilateral carcinomas as compared to unilateral disease. Histopathologically, several studies have shown that synchronous bilateral breast tumors tend to be of lower histologic grade with a higher rate of estrogen receptor (ER) and progesterone receptor (PgR) positivity [3,6].

Surgical management and cosmesis

Considerable controversy has existed regarding the surgical management of patients with synchronous bilateral breast cancer. Traditionally, most clinicians have approached bilateral breast cancer more aggressively than unilateral disease. Most studies have shown a disproportionately higher incidence of bilateral mastectomy for bilateral breast cancer. This aggressive approach was employed to treat what was once thought to be a disease with a worse prognosis and outcome. However, several studies have shown that the prognosis of patients with bilateral breast cancer seems similar to unilateral disease. Gollamudi et al. retrospectively reviewed patients with SBBC and showed that they do not have a worse prognosis and can be safely treated with bilateral breast conservation. The cosmetic outcome was comparable to patients who underwent unilateral breast conservation. Heron et al. also demonstrated that bilateral breast conservation treatment does not compromise cosmesis, outcome or overall survival in this group of patients [7]. Currently, the overall consensus is that bilateral breast cancer is amenable to bilateral breast conservation treatment without compromising survival and maintaining patient cosmesis [1].

Survival

Survival data has been difficult to interpret because of different definitions used to describe bilateral breast cancers. For example, calculations of survival from the time of the first and not the second primary can have a significant impact on the reported survival rates [7]. There is also a question of multifocality/multicentricity associated with these tumors affecting local recurrence rates. In a prospective study of SBBC, 18% of the bilateral breast cancer patients had the presence of multifocality on both sides [3]. This incidence of multifocality compares with the reported incidence in many bilateral breast cancer series. Similarly, others have evaluated breast tumors for multicentricity and found that the presence of multicentric tumors was a significant risk factor for bilateral breast cancer. This higher incidence of multifocal/multicentric disease may explain the slightly higher local recurrence seen after breast conserving surgery [8]. Despite this slightly higher local recurrence rate, most evidence supports a similar disease free and overall survival compared to patients with unilateral disease [1,8]. Therefore, the presence of bilateral invasive breast carcinomas have not been clearly shown to exert a negative impact on patient survival.

Conclusion

SBBC is a rare event warranting physician awareness and screening of the contralateral breast in patients with unilateral breast cancer. The etiology of bilateral breast cancer is uncertain, but most evidence supports independent tumors rather than metastatic spread from the primary tumor. The contralateral tumor is usually diagnosed by mammography and is commonly the lower staged tumor. The prognosis of bilateral breast cancer was once thought to be poor, which explained the high rate of bilateral mastectomies. However, recent data has suggested a similar survival for bilateral breast cancers as compared to unilateral disease for patients treated with breast conserving surgery. Furthermore, the cosmesis for bilateral breast conservation has been comparable to unilateral disease. Therefore, bilateral breast conservation may be offered as a viable surgical treatment option for patients with synchronous bilateral breast cancer without compromising outcome.

References


