

Primary squamous cell carcinoma of the breast

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ABSTRACT

Breast cancer is the most common cancer in women. The most common histological type is infiltrating ductal carcinoma. Lobular, papillary, mucinous and medullary types have relatively lower incidence. Primary squamous cell carcinoma (SqCC) of the breast is a rare disorder (1). Although approximately 100 cases of SqCC of the breast have been documented in the literature, there are only few series documenting the management and clinical outcome of these tumors. The treatment principles are controversial and more information about SqCC of the breast is needed. Herein we report a 64-year-old woman with primary SqCC of the breast who was treated with cisplatin containing chemotherapy. [Turk J Cancer 2009;39(1):26-27]

KEY WORDS: Breast, squamous, carcinoma

CASE REPORT

A 64-year old woman was admitted to the hospital with the complaint of rapidly growing right breast mass for two months. Examination with mammography and breast ultrasound (USG) revealed a 3.3 x 3.4 cm lobulated mass in her right breast on the retroareolar area. Incisional biopsy revealed a solid neoplasm noninvasive to the skin and areolar complex consistent with squamous cell carcinoma (Figure 1). To rule out another primary site; thorax computed tomography (CT), upper gastrointestinal

system endoscopy and gynecological examination were performed. No other primary site was detected. She had a past medical history of right upper lobectomy of the lung because of cyst hydatid, 15 years ago. Fiber optic bronchoscopic (FOB) examination was performed. Except right upper lobectomy FOB was normal.

After determining that there are no distant metastasis by abdominal USG and bone scintigraphy she underwent right modified radical mastectomy. The histological finding was squamous cell carcinoma; estrogen receptor (ER) and progesterone receptor (PR) were negative and 22 lymph nodes were uninvolved in the axilla. The tumor size was 5.5 cm and there were no vascular and neural invasion.

The patient received adjuvant 6 cycles of CAP (cyclophosphamide, adriamycin and cisplatin) chemotherapy and radiotherapy (50 Gy, 200 cGy x 25 fractions). The patient is alive and disease-free, 2 years after the diagnosis.

DISCUSSION

Primary SqCC of the breast is believed to arise directly from the epithelium of the mammary ducts although another theory is that the tumor arises from foci of squamous metaplasia within a pre-existing adenocarcinoma of the breast. Some cases of primary SqCC were reported to arise from the capsules surrounding the silicone breast prostheses (2).

Metastasis to axillary lymph nodes in primary SqCC are uncommon with an incidence of 0 to 22%. In contrast,

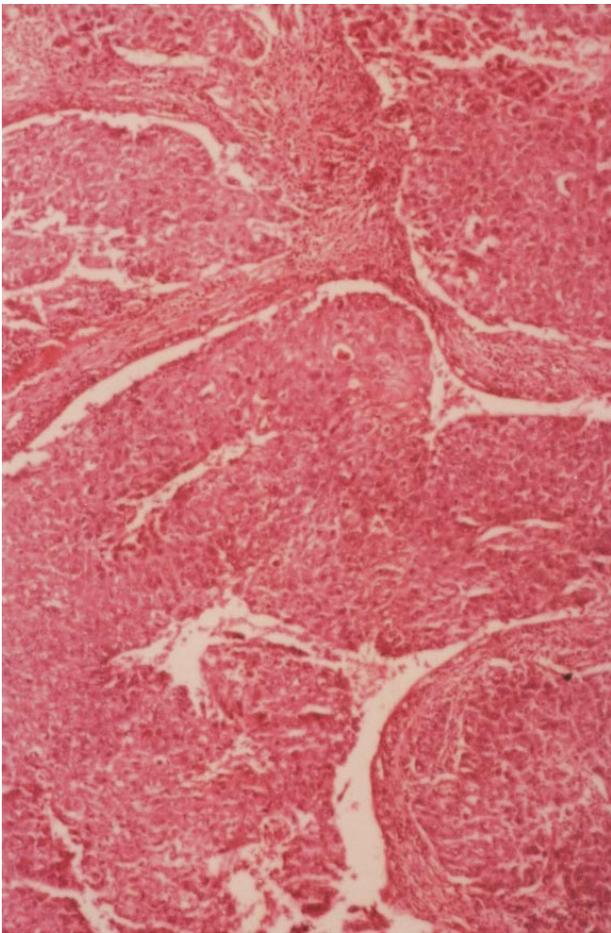


Fig 1. Malignant squamous cells with dense nuclei and keratinization (H&E, x40)

rates of axillary involvement as high as 40% to 60% have been reported at presentation in infiltrating ductal carcinoma of the breast. In our patient the tumor was 5.5 cm in diameter and she had no metastatic involvement of axillary lymph nodes.

No consistent mammographic findings have been described for SqCC. Calcification in the squamous tissue is occasionally seen on mammography. In our case multiple heavily calcified fibroadenomata was seen in the mammography.

References

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SqCC of the breast is mostly ER and PR negative. This is the expected way of presentation of a tumor comprised solely of squamous cells. Hormone receptors were negative in our patient.

When we diagnose SqCC in the breast, it is necessary to exclude the presence of metastasis from an extramammary primary or a possible occult primary on detailed clinical assessment, investigations and follow-up. The most common sources of metastatic SqCC to the breast are the lung, uterine cervix, esophagus, skin and oropharynx. Further special investigations should be governed by clinical presentation. Our patient had a history of cyst hydatid operation from her lung and we performed FOB to exclude the lung cancer.

As there are fewer cases of primary SqCC than adenocarcinoma of the breast, optimal treatment and the prognosis are both unclear. Postoperative role of adjuvant radiation therapy remains unclear in the absence of clinical trials. But SqCC is usually radiosensitive, although sporadic reports are conflicting. Adjuvant chemotherapy is often suggested rather than endocrine therapy because of ER and PR negativity (1). The optimum choice of chemotherapeutic agents is unknown. One review suggests that SqCC of the breast is not sensitive to chemotherapeutic agents commonly used for ductal adenocarcinoma such as cyclophosphamide, methotrexate, 5-FU and adriamycin (3). Stevenson et al. (4) suggested combining cisplatin, 5-FU and adriamycin, and Behranwala et al. (1) suggested mitomycin and mitoxantrone in the adjuvant treatment of the disease. Our patient was treated with 6 cycles of CAP (cyclophosphamide, adriamycin and cisplatin) chemotherapy and adjuvant radiotherapy and there is no evidence of disease for thirteen months of follow-up. Since cisplatin is the main drug in the treatment of squamous cell carcinoma and cyclophosphamide and adriamycin is the standard of adjuvant treatment of breast cancer we suggest that combining these three chemotherapeutics can be considered to be the ideal adjuvant treatment for SqCC of the breast.