

Primary Multifocal Squamous Cell Carcinoma of the Breast: A Closer Look to Biological Characteristics

E. Tamer ELKIRAN¹, Bilge AYGEN¹, Aziz KARAOĞLU¹, İbrahim ÖZERCAN²

¹ Fırat Üniversitesi Tıp Fakültesi, İç Hastalıkları Anabilim Dalı

² Fırat Üniversitesi Tıp Fakültesi, Patoloji Bilim Dalı, ELAZIĞ

ABSTRACT

Primary squamous cell carcinoma (SCC) of the breast is an extremely rare neoplasm. Clinical and biological characteristics are not well-known. There is also no consensus for the adjuvant treatment of this tumor. Herein we present a 37-year-old woman with a diagnosis of multifocal SCC. We also discuss clinical, biological characteristics of this rare tumor in the light of pertinent literature.

Key Words: Squamous cell carcinoma, Breast, Chemotherapy, Prognosis

ÖZET

Memenin Primer Multifokal Skuamöz Hücreli Karsinomu: Biyolojik Özelliklerin Gözden Geçirilmesi

Memenin primer skuamöz hücreli kanseri oldukça nadir görülmektedir. Klinik ve biyolojik özellikleri iyi bilinmemektedir. Ayrıca, bu tümörün adjuvan tedavisi ile ilgili fikir birliği yoktur. Bu çalışmada memenin multifokal skuamöz hücreli kanserli 37 yaşında bayan hasta sunulmuştur. Ayrıca, mevcut literatür ışığında bu nadir tümörün klinik ve biyolojik özellikleri de tartışılmıştır.

Anahtar Kelimeler: Skuamöz hücreli kanser, meme, Kemoterapi, Prognoz

INTRODUCTION

Primary squamous cell carcinoma (SCC) of the breast is an extremely rare neoplasm. It is diagnosed when more than 90% of the diagnosed malignant cells are of the squamous squamous type type. For its diagnosis, a skin primary carcinoma and metastasis of distant site SCC should be excluded. The prognosis of this type breast cancer remains the subject of controversy with some series suggesting an indolent clinical course and a relatively good prognosis. However, there is still no consensus regarding the role of primary or adjuvant therapy (1,2).

A 37-year-old woman presented with a painful, firm, well-defined breast mass located at the upper outer quadrant of the left breast. Mammography demonstrated a well-defined, lobuled, circumscribed mass, and 3 cm in size. She did not have a family history of breast cancer. Based on these findings, an excisional biopsy was performed and pathology was consistent with SCC. Clinical and radiological evaluation including abdominal-pelvic tomography did not show any primary site of squamous carcinoma. A left modified radical mastectomy including axillary lymph node dissection was carried out. Histopathological assessment of the mastectomy specimen was multifocal tumor, 2 and 1 cm in sizes with the features of well-differentiated SCC (Figure 1). There were no metastases in the 13 dissected axillary lymph nodes, and no other cutaneous tumor elsewhere was found. The tumor was estrogen and progesterone receptor negative. She did not have any other site of squamous carcinoma. There was no evidence of metastases. The patient received adjuvant radiotherapy and six courses of adjuvant chemotherapy consisting of cisplatin and etoposide. After completion of the treatment, she was disease-free for about 2 years.

DISCUSSION

SCC of the breast is rare condition, accounting for only 0.16%–2.0% of all cases of breast cancer (3). The histogenesis remains controversial; it has been explained as arising from dermoid cyst of the breast, chronic abscesses, complete metaplasia of metaplastic change in ductal epithelium of the nipple or other, malignant tumors (4, 5). The diagnosis of this rare tumor is possible after excluding a pri-

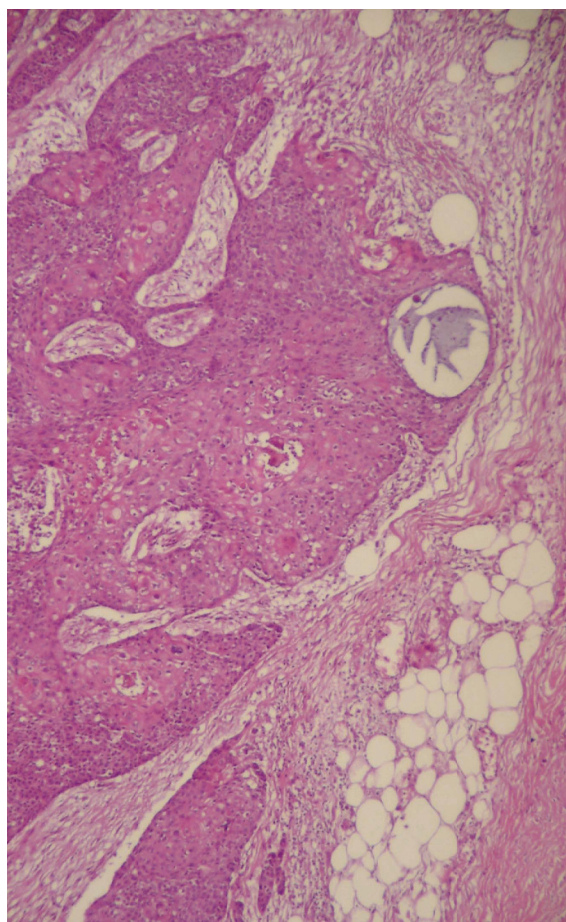


Figure 1. Microscopically, the tumor showed features of well-differentiated squamous cell carcinoma (H&E stain; original magnification=100x).

mary skin tumor or an SCC of a distant site (6). The most common primary sources for metastatic SCC in the breast are the lung, uterine cervix, urinary bladder, oesophagus and oropharynx. Clinical and radiological appearances are not specific for primary breast SCC. Most of these tumours have been reported to be estrogen receptor (ER) and progesterone receptor (PgR) negative, and nodal involvement is rare as in our cases (7,8). In our patient, primary site other than breast was excluded. Prognosis of this type of breast cancer is variable (6-8). The treatment of SCC of the breast is similar to other types of breast carcinoma, and based on surgery associated to radiation therapy and chemotherapy (6). One of the biggest series for breast SCC came from M.D. Anderson Center (9). They retrospec-

tively analyzed 33 patients. Of these patients, 2 presented with metastases at the the time of diagnosis. In contrast to literature, almost half (17/31) of these patients had a nodal disases. Most of the patients were triple negative cancer (HER-2, ER and PgR). Interestingly, epidermal growth factor receptor (EGFR) expression was positive in 17 of 21 tested tumor in this study. Drugs used as an adjuvant treatment were anthracyline, taxanes, and cisplatinium.

In conclusion, breast SCC is rare tumor with peculiar clinical and biological charecteristics. Besides the use of conventional chemotherapeutic agents in the adjuvant treatment of this tumor, biologically targeted therapy against EGFR in combination with chemotherapy might be reasonable approach in the management of these patients.

REFERENCES

1. Cardoso F, Leal C, Meira A et al. Squamous cell carcinoma of the breast. *Breast* 9:315-319, 2000.
2. Toikkanen S. Primary squamous cell carcinoma of the breast. *Cancer* 48: 1629-1632, 1981.
3. Eggers JW, Chesney TM. Squamous cell carcinoma of the breast: a clinicopathologic analysis of eight cases and review of the literature. *Hum Pathol* 15: 526-531, 1984.
4. Pricolo R, Croce P, Voltolini F et al. Pure and primary squamous cell carcinoma of the breast. *Minerva Chir* 46: 215-219, 1991.
5. Otto H, Breining H. Benign and malignant breast tumors with squamous cell differentiation. *Radiologe* 27: 196-201, 1987.
6. Zoltan TB, Konick L, Coleman RJ. Pure squamous cell carcinoma of the breast in a patient with previous adenocarcinoma of the breast: a case report and review of the literature. *Am Surg* 67: 671-673, 2001.
7. Behranwala KA, Nasiri N, Abdullah N et al. Squamous cell carcinoma of the breast: clinico-pathologic implications and outcome. *Eur J Surg Oncol* 29: 386-389, 2003.
8. Tayeb K, Saadi I, Kharmash M et al. Primary squamous cell carcinoma of the breast. Report of three cases. *Cancer Radiother* 6: 366-368, 2002.
9. Hennessy BT, Krishnamurthy S, Giordano S et al. Squamous cell carcinoma of the breast. *J Clin Oncol* 23: 7827-7835, 2005.

Corresponding Address:

Dr. Emin Tamer Elkiran
Firat Üniversitesi, Firat Tıp Merkezi
Tıbbi Onkoloji Bölümü
23119 ELAZIĞ

e-mail: telkiran@yahoo.com
Tel: (0.424) 233 35 55
Faks: (0.424) 238 80 96