

Primary intracystic squamous cell carcinoma of breast

Memenin primer intrakistik skuamöz hücreli karsinomu

Sümeyye EKMEKCİ¹, Evren UZUN², Merih Güray DURAK², Pınar BALCI³, Ali İbrahim SEVİNÇ⁴, Tülay CANDA²

¹Tepecik Eđitim ve Arařtırma Hastanesi Patoloji Bölümü, İzmir, Türkiye

²Dokuz Eylül Üniversitesi Tıp Fakültesi Patoloji Anabilim Dalı, İzmir, Türkiye

³Dokuz Eylül Üniversitesi Tıp Fakültesi Radyoloji Anabilim Dalı, İzmir, Türkiye

⁴Dokuz Eylül Üniversitesi Tıp Fakültesi Genel Cerrahi Anabilim Dalı, İzmir, Türkiye

ABSTRACT

Primary squamous cell carcinoma (SCC) of the breast accounts for less than 0.04% of all breast carcinomas. Ultrasonographic imaging of a 41-year-old female showed a lesion compatible with complex cyst with a symmetric thick-walled septations in the right breast, with a dimension of 8x7.5 cm. Histopathologic examination showed nests of squamous neoplastic cells with occasional intercellular bridges and atypical mitotic figures infiltrating the breast parenchyma, as well as dysplastic squamous cells lining the cyst wall. Targeted treatment modalities need to be developed to achieve better clinical outcome in these tumors, therefore more extensive series of studies are required.

Keywords: breast, breast carcinoma, intracystic squamous cell carcinoma

ÖZ

Memenin primer skuamöz hücreli karsinomu tüm meme karsinomlarının %0,04'ten azını oluşturur. Kırk bir yaşında kadın hastanın sağ memesinde ultrasonografik görüntülemesinde, 8x7,5 cm boyutlarında, asimetric, kalın duvarlı, septasyonlar içeren kompleks kist ile uyumlu lezyon izlenmiştir. Histopatolojik incelemede kist duvarını döşeyen displastik skuamöz hücreler yanı sıra meme parenkimini infiltre eden, gruplar oluşturmuş, yer yer intersellüler köprüler içeren skuamoid görünümlü neoplastik hücreler ile arada atipik mitotik figürler izlenmiştir. Memenin SHK'ları da dahil metaplastik karsinomlarında daha iyi klinik gidişe ulaşabilmek için hedefe yönelik tedavi modelleri geliştirilmesi gerekmektedir. Bu nedenle de bu tümörlerde daha geniş serilerde çalışmalara gereksinim duyulmaktadır.

Anahtar kelimeler: meme, meme karsinomu, intrakistik skuamöz hücreli karsinom

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Yazışma adresi: Uzm. Dr. Sümeyye Ekmekci, Tepecik Eđitim ve Arařtırma Hastanesi Patoloji Kliniđi, İzmir - Türkiye

e-mail: ekmekcisumeyye@gmail.com

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INTRODUCTION

Breast cancer is the most common malignancy in women and the second leading cause of death. Primary squamous cell carcinoma (SCC) of the breast accounts for less than 0.04% of all breast carcinomas ⁽¹⁾. Similar to other metaplastic carcinomas of the breast, the prognosis of SCC is worse than invasive ductal and lobular carcinomas of the breast ⁽²⁾.

CASE REPORT

Ultrasonographic imaging of a 41-year-old female showed a lesion compatible with a 8x7.5 cm complex cyst of the right breast containing symmetric thick-walled septations. Fine-needle aspiration biopsy revealed a malignant tumor. The excision material consisted of irregular tissue fragments reminiscent of cyst wall, the largest being 6 cm in diameter (Figure

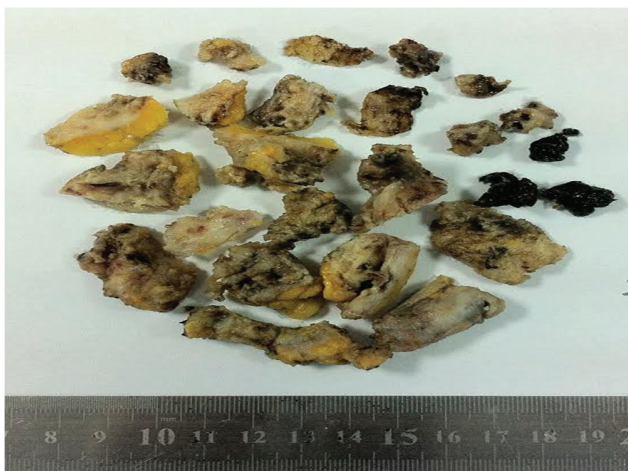


Figure 1. Gross specimen consisting of tissue fragments representing the cyst wall.

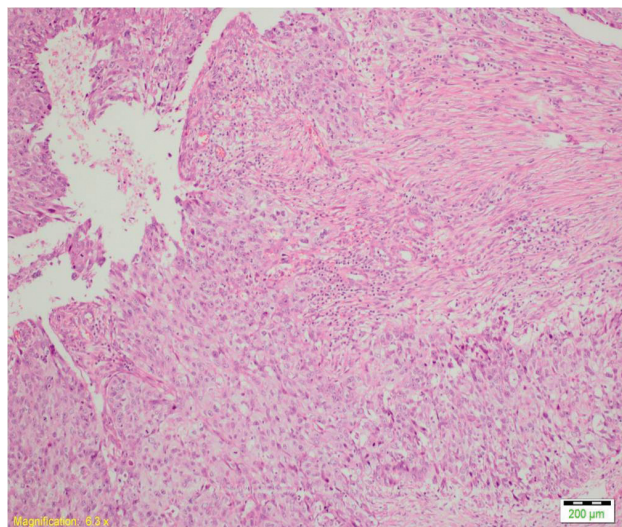


Figure 2b. Nests of pleomorphic squamoid neoplastic cells with large eosinophilic cytoplasm are prominent (H&E, x100).

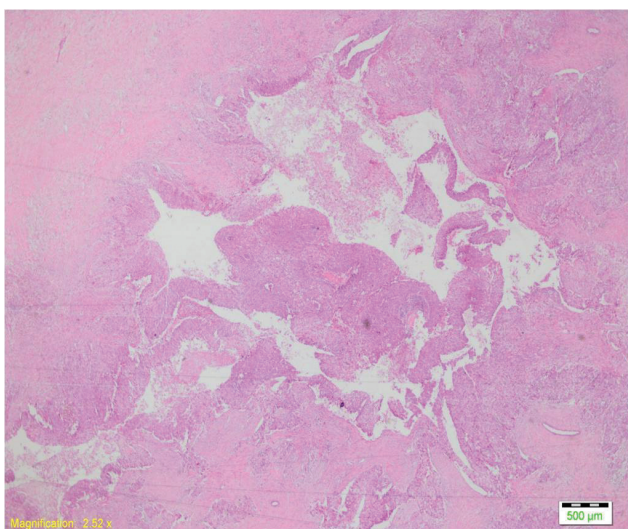


Figure 2a. Histologically, squamoid tumor cells lining the cystic space are seen (H&E, x40).

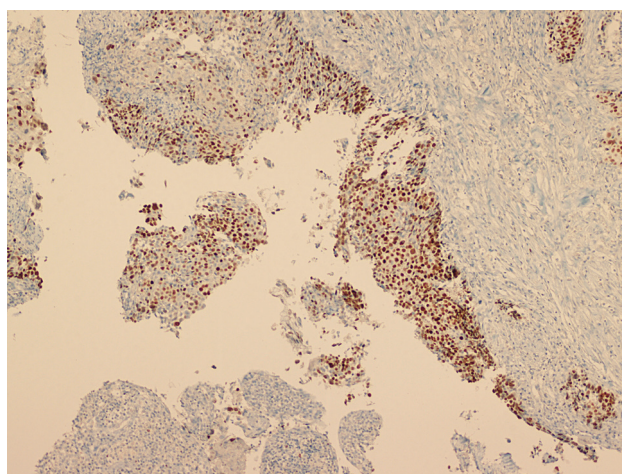


Figure 3. Immunohistochemically, tumor cells showed diffuse nuclear p63 staining (x100).

1). Histopathologic examination showed nests of squamous neoplastic cells with occasional intercellular bridges and atypical mitotic figures infiltrating the breast parenchyma, as well as dysplastic squamous cells lining the cyst wall (Figure 2a-b). These cells were diffusely immunoreactive for p63 (Figure 3). No lymphovascular invasion was detected. Simultaneously performed cyst aspiration fluid showed similar clusters of atypical cells (Figure 4). Immunohistochemically, tumor cells were negatively stained for estrogen and progesterone receptors.

HER2 was also negative. Ki-67 proliferative index of the tumor was 40%. The patient was diagnosed as primary intracystic SCC of the breast. Subsequently, simple mastectomy and sentinel lymph node biopsy were performed. Residual tumor with similar morphology was present in the specimen, around the cavity, that was 17x10 mm in size. The tumoral cells also invaded the deep dermis. No metastasis was detected in the sentinel lymph node. The patient received chemotherapy and radiotherapy, and she is well without disease at postoperative 28th month.

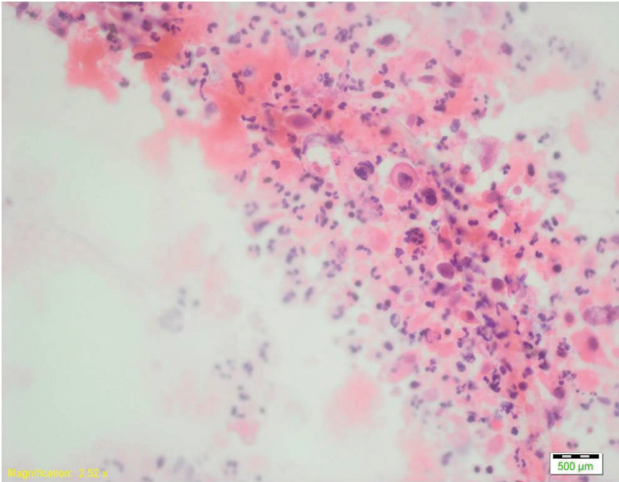


Figure 4. Cyst aspiration fluid of the tumor showed similar clusters of atypical squamoid cells (x400).

CONCLUSION

Metaplastic carcinoma of the breast include low-grade adenosquamous carcinoma, fibromatosis-like metaplastic carcinoma, SCC, spindle cell carcinoma, and carcinoma with mesenchymal differentiation, according to WHO classification of tumors of the breast ⁽³⁾. Squamous differentiation should be more than 90% of the tumor in order to diagnose as primary SCC of the breast. The most important differential diagnosis is metastatic SCC from other sites, especially skin ⁽⁴⁾. Precise clinical history and careful examination of the specimen for the presence of in situ carcinoma is helpful in these cases. Some cases may develop from benign tumors, such as adenofibroma, cyst, chronic inflammation or abscess ⁽¹⁾. It is hypothesized that, squamous metaplasia that occurs in these benign tumors may provide basis for the development of a malignant tumor.

Different morphological patterns may be prominent in these tumors, such as keratinization, acantholysis, cystic, papillary changes, or spindle or clear cell morphology ⁽⁵⁾. Primary SCCs of the breast are generally cystic lesions that may reach large sizes. The majority are triple-negative with aggressive beha-

viour and poor prognosis. Distant metastasis is observed in 30% of the cases.

Treatment modalities and effects are not clear due to their rare occurrence and limited case series, and may include surgery, chemotherapy and radiotherapy similar to other breast cancers. Hormonal therapy is not a treatment option, since majority of the cases are triple-negative tumors.

To summarize, primary SCC of the breast should be diagnosed after exclusion of metastasis. It should be also kept in mind that metaplastic benign squamous cells may be present in other necrotizing and inflammatory conditions, such as cystic lesions, fatty necrosis, intraductal papilloma and mastitis. Targeted treatment modalities need to be developed to achieve better clinical outcomes in these tumors, therefore larger series of studies should be performed.

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