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Case report

Squamous cell carcinoma of the breast: About a case

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ABSTRACT

Squamous cell carcinoma of the breast is a rare metaplastic breast tumor whose histogenesis is controversial. Its prevalence is estimated between 0.06 % and 0.2 % of all breast neoplasms. The histogenesis remains obscure. The clinical aspects are not specific. Squamous cell carcinoma is characterized by a rapid evolution and by an uncodified treatment. The objective of our work, by reporting a new case of primary squamous cell carcinoma of the breast, is to specify through a literature review some characteristics of this particular form of breast cancer.

Squamous cell carcinoma of the breast is a rare tumor belonging to the heterogeneous group of metaplastic carcinomas. The clinical and radiological presentations are not specific. The prognosis.

1. Introduction

Squamous cell carcinoma of the breast is a rare metaplastic breast tumor whose histogenesis is controversial. Its prevalence is estimated between 0.06 % and 0.2 % of all breast neoplasms [1]. The histogenesis remains obscure. The clinical aspects are not specific. Squamous cell carcinoma is characterized by a rapid evolution and by an uncodified treatment [2].

The objective of our work, by reporting a new case of primary squamous cell carcinoma of the breast, is to specify through a literature review some characteristics of this particular form of breast cancer.

The work has been reported with respect to the SCARE 2020 criteria [19].

2. Observation

A 42-year-old patient followed for type 2 diabetes on insulin therapy with no personal or family history of neoplastic disease consulted for a mass in the left breast evolving 6 months before admission. Examination found a 6 cm mass in the inferior-internal quadrant of the mobile left breast with respect to both planes, without inflammatory signs or nipple discharge associated with a 3 cm ipsilateral axillary lymphadenopathy (Fig. 1).

Mammography found type 3 breast density with the presence of two increased opacity in the left lower-inner quadrant with irregular spiculated contours (Fig. 2).

On ultrasound, we noted the presence of a hypoechoic lesion in the lower inner left quadrant with irregular contours measuring 1.6 × 2.2 cm associated with a cyst with echogenic content measuring 1.1 × 1.3 cm in regular course; rated ACR Birads 5 (Fig. 3).

Breast mass biopsy confirmed the presence of SBR grade III invasive squamous cell metaplastic breast carcinoma, hormone receptors were not expressed, as well as HER 2 amplification, Ki67 was at 40 % with tumor cells express CK5/6.

The extension assessment made of abdominal and pelvic CT scan and bone scintigraphy, was negative.

The patient had benefited from a patey of the left breast, after discussion in multidisciplinary consultation meeting, with the anatomopathologic study: The Scarff-Bloom et Richardson (SBR) grade III invasive squamous cell metaplastic breast carcinoma the size was 5 cm, positive vascular embolism, resection limits were healthy, axillary lymph node dissection was positive: 2 lymphadenopathy affected from 6 (2 N+/6 N). According to the TNM classification our patient is classified: p T2N1.

The patient is then put on chemotherapy: 3 courses of Anthracyclines and 3 courses of Taxanes, then radiotherapy 40 Grays; with a follow-up of 30 months.

3. Discussion

Primary squamous cell carcinoma of the breast is rare. Its prevalence is estimated between 0.06 % and 0.2 % [1].

It is part of the heterogeneous group of metaplastic breast carcinomas.

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Fig. 1. Clinical appearance of tumor: Mass of 6 cm in the lower inner quadrant of the breast left.

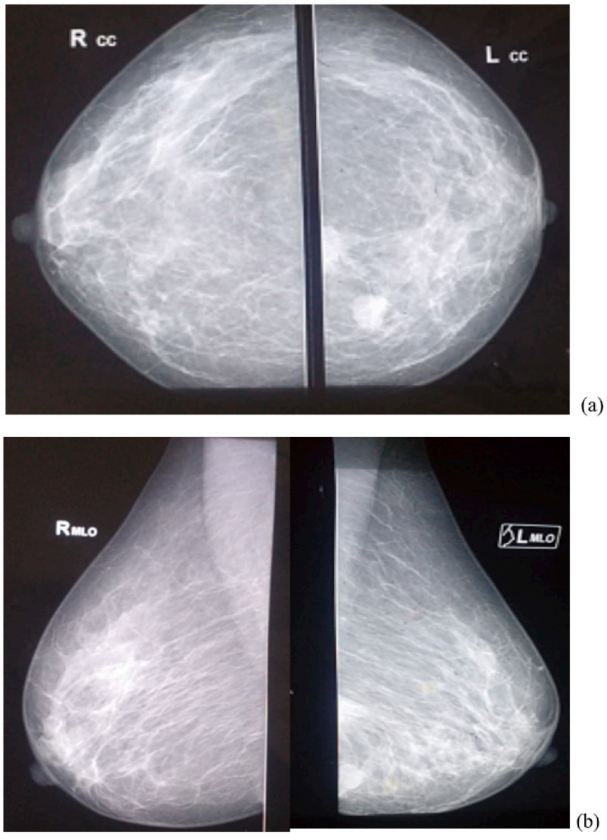

Fig. 2. Mammography image showing the increased opacity (a) face view and (b) oblique incidence.

According to the WHO, squamous cell carcinoma of the breast belongs to infiltrating ductal carcinomas comprising metaplastic changes of the squamous cell type, in the absence of any other ductal or mesenchymal neoplastic component and of any other focus of distant squamous cell carcinoma [3].

The metaplastic origin of these tumors is well established but their histogenesis is controversial.

For some, the origin is glandular, for others it is myoepithelial [2]. Squamous cell carcinoma of the breast affects women between the ages of 30 and 80 with a predominance at the age of 55 [4].

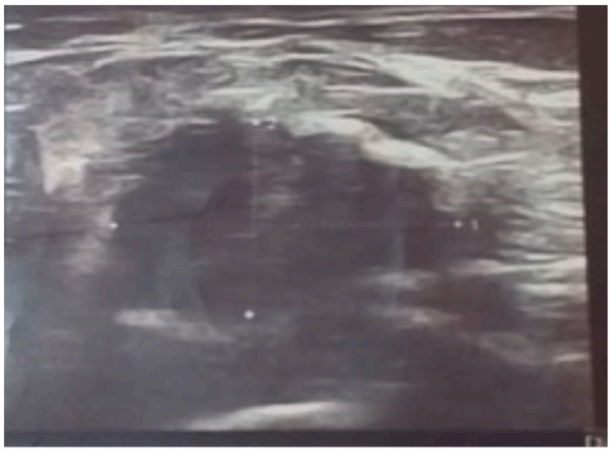

Fig. 3. Sonographic appearance of the tumor.

Clinically, the tumor generally manifests as a mass comparable to a benign tumor with an average size of 5 cm and extremes of 2 to 16 cm. The evolution is usually rapid. It can also be revealed by mastodynia, inflammatory signs, nipple discharge, retraction of the nipple, ulcerations of the skin opposite or sometimes a breast abscess [5].

Lymph node involvement is rarely associated [6]. Our patient presented with ipsilateral axillary adenopathy.

Radiologically, the aspect is not specific. It is generally a rounded mass, without a spicule, partially irregular with a cystic or necrotic center, which explains the pseudocystic or abscessed appearance found [7].

Calcifications can be seen within necrotic squamous tissue [8]. Ultrasound breast may show a hypoechoic mass with cystic components resembling a complex breast cyst [9].

The diagnosis of squamous cell carcinoma of the breast is retained after having ruled out parenchymal invasion by a squamous tumor of the skin covering, the existence of a primary tumor at a distance, or the existence of another component other than squamous cell at the within the tumor [10].

Histologically, squamous cell carcinoma of the breast has an architecture and cytonuclear characteristics identical to other squamous cell carcinomas developing in another site [9]. Immunohistochemistry shows expression of epithelial tumor cells of high molecular weight cytokeratins, in particular CK14 CK5/6 and CK17 [11].

Hormone receptors are generally negative as well as HER 2 [12]; Our patient was also triple negative as in the literature.

Given the rarity of this type of tumor, the appropriate treatment is poorly codified [13]. The treatment is similar to that of infiltrating ductal carcinomas of the breast, it usually involves mastectomy with axillary lymph node dissection followed by chemotherapy and radiotherapy [4]. Indeed, neoadjuvant chemotherapy is not justified to consider a conservative treatment since its results are mediocre [18].

Most chemotherapy regimens have combined 5-fluorouracil and cisplatin with some success [14].

Given the usual negativity of hormone receptors, hormone therapy has little place in the therapeutic arsenal for squamous cell carcinoma of the breast [10].

The prognostic factors are mainly represented by the size of the tumor, lymph node involvement [15]. The presence of a fusiform component, necrosis or cellular acantholysis is considered predictors of an unfavorable outcome [16].

The prognosis of breast squamous cell carcinoma remains pejorative with the occurrence during the first five years of metastases in the lung, liver, bone or brain [17]. The average survival at 5 years is estimated between 50 and 63 % [2].

4. Conclusion

Squamous cell carcinoma of the breast is a rare tumor belonging to the heterogeneous group of metaplastic carcinomas. The clinical and radiological presentations are not specific. The prognosis remains pejorative. Treatment is based on surgery with axillary lymph node dissection. Adjuvant treatment combines radiotherapy and chemotherapy, the type of which remains to be specified, hence the interest of studies allowing a better knowledge of their evolutionary profile for a better codification of their management.

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Ethical approval

I declare on my honor that the ethical approval has been exempted by my establishment.

Consent

Written informed consent for publication of their clinical details and/or clinical images was obtained from the patient.

Author contribution

El Qasseh Rajaa: Corresponding authore writing the paper
Fares el arab Khadija: study concept
Moutahir Maria: study concept
Benhessou Mustapha: study concept
Ennachit Mohammed: study concept
EL Karroumi Mohammed: correction of the thesis and operating surgeon.

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Declaration of competing interest

The authors declare having no conflicts of interest for this article.

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