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Case Report

Primary squamous cell carcinoma of the breast about one case: presentation of a rare entity

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ABSTRACT

Squamous cell carcinoma of the breast is a rare disease, it is presented as a palpable mass, often of large volume. The clinical aspects are not specific. Squamous cell carcinomas of the breast are not hormone-dependent and are not very lymphophilic. The diagnosis is histological after eliminating the metastatic origin. Overall survival and no recurrence are worse than any other forms of breast cancer. Treatment is similar to the ductal infiltrating carcinomas one and is based on surgery, radiotherapy and chemotherapy. The prognosis is poor. We reported one case of squamous cell carcinoma of the breast collected at the department of gynecology and obstetrics at Mohammed VI university hospital of Oujda through this observation we will focus on the different characteristics of this entity which remains rare.

Keywords: Breast, Squamous cell carcinoma, Breast cancer, Gynecologic oncology, Gynecological cancer, Oncology

INTRODUCTION

Primary squamous or squamous cell carcinomas of the breast are rare. These tumors are part of the metaplastic carcinomas of the breast. There are no specific iconographic features as most of the data are from clinical cases or small series.

Squamous cell carcinoma is defined by the presence of a squamous component in more than 90% of tumor cells and forms associated with a ductal or mesenchymal component. It is globally rare and its incidence is poorly assessed.[1] As a result, it is often treated as the most common form, ductal, whereas it has other characteristics. Its primitive character can only be affirmed after having eliminated all other localizations, including a cutaneous or nipple origin.

The objective of our work, in reporting one case of primary squamous cell carcinoma of the breast, was to clarify some of the characteristics of this particular form of the breast cancer.

CASE REPORT

Patient aged 39 years, nulligest, without antecedents, presented with a breast mass in the right breast evolving for 7 months and rapidly increasing in volume with mastodynia, the senological examination of the right breast objectively revealed an ulceroburgeoning, cauliflower-like, erosive surface, with erythemato-violet indurated edges and fibrinous background, centered by a rounded and deepening ulceration, leaving a purulent liquid, measuring 14 cm/8 cm in diameter and taking the two upper quadrants and spreading to the right axillary extension, there is a retraction of the nipple and inflammatory signs all around the tumor (Figure 1), a 1 cm mobile homolateral axillary adenopathy, the tumor is clinically classified as T4dN1Mx , the examination of the left breast is without any particularity.

A biopsy of the right breast tumor was performed and an anatomical-pathological study showed a well-differentiated keratinizing and infiltrating squamous cell carcinoma.

Figure 1: Macroscopic aspect of tumor: mass occupying right breast ¾ of ulcerous, budding, inflammatory and super-infected appearance, 14/8 cm in size.

An extension workup based on a thoraco-abdomino-pelvic CT scan did not reveal any secondary tumor localization; the CA15-3 was negative.

Echo-mammography of the left breast revealed a lesion of the junction of the internal quadrants of regular contours, hypoechoic, heterogeneous, measuring 17mm/8mm, classified ACR 4, an echo-guided microbiopsy of this left breast lesion noted the presence of breast tissue focal site of a simple cylindrical metaplasia, an anatomo-pathological analysis was performed on a simple lumpectomy of the lesion, the results showed that it was a benign adenofibroma.

The patient benefited from a Patey of the right breast with removal of the pectoralis major muscle (Figures 2-4), the postoperative follow-up was simple. The anatomo-pathological examination confirmed the diagnosis of squamous cell carcinoma of the right breast (Figures 5 and 6), well differentiated, infiltrating and keratinizing, measuring 14 cm, characterized by peri-nervous sheathing, without vascular embolus, without in situ component. The nipple is non-infiltrated and free of Paget's disease, the deep plane is tumoral and the other surgical borders are healthy. Absence of lymph node invasion on 14 lymph nodes sampled. Removal of the pectoralis major muscle is free of tumor extension.

The patient was referred to the oncology department for adjuvant treatment.

Figure 2: Aspect pre-operative of the limits of the surgical incision.

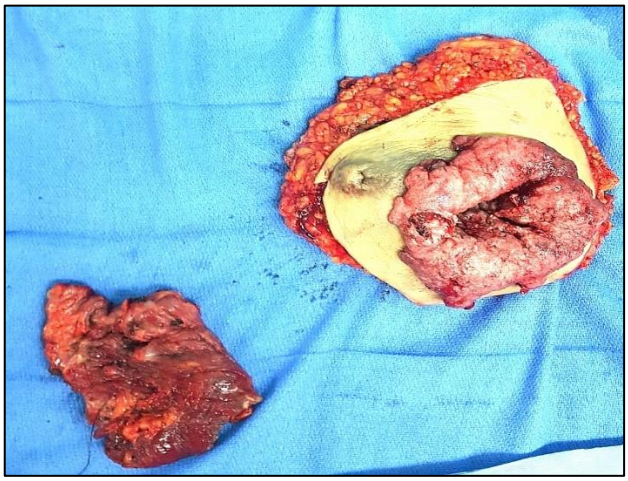

Figure 3: Surgical specimens: part of right mastectomy and part of the excision of right pectoralis major muscle.

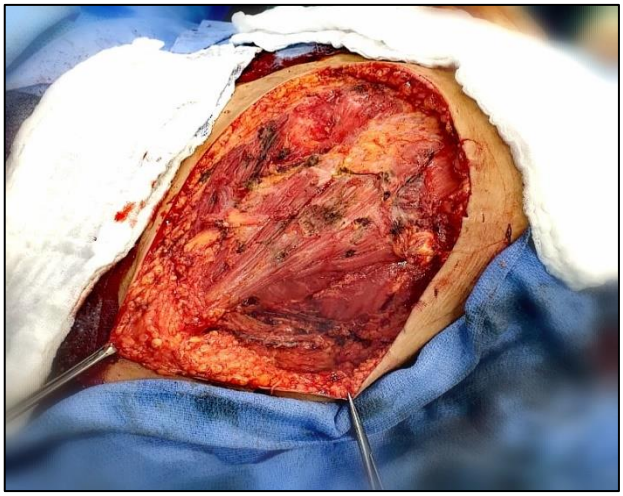

Figure 4: the bed of the right mastectomy after resection of the pectoralis major muscle.

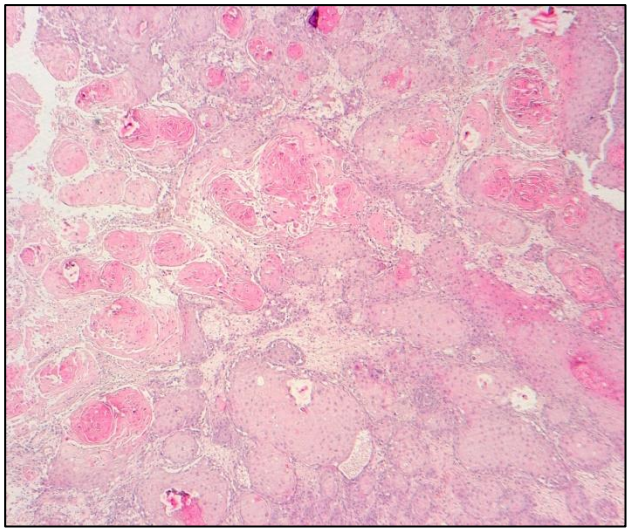

Figure 5: Microphotography showing the infiltration of the dermis by nests and masses of carcinoma cells. These masses are often centered by horny globes. HE, 40X.

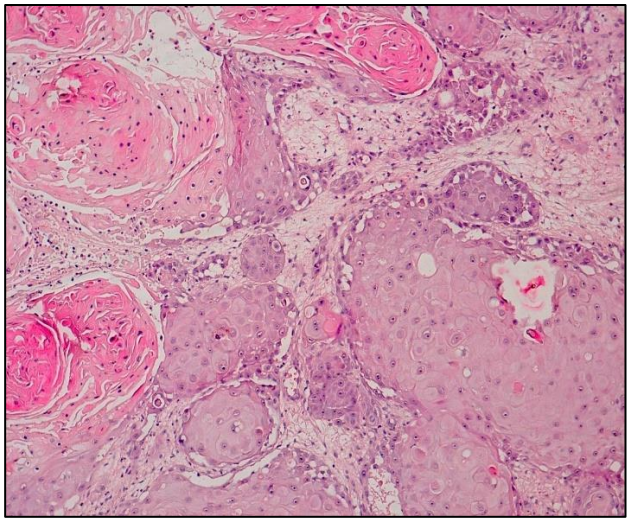

Figure 6: Microphotography showing tumor masses, infiltrates made of large polygonal cells with frankly nucleated nuclei. HE, 100X.

DISCUSSION

Primitive squamous cell carcinomas of the breast are rare, few cases have been described in the literature, their exact incidence is difficult to specify. Squamous cell carcinoma of the breast occurs in women between 30 and 80 years of age, with a predominance at age 55.[2]

According to the WHO, squamous cell carcinoma of the breast is one of the ductal invasive carcinomas with metaplastic changes of the squamous cell type in the absence of any other ductal or mesenchymal neoplastic components and other distant sites of squamous cell carcinoma.[2,3] These tumors arise by total or partial metaplasia, transforming a reserve epithelial, myoepithelial or totipotent cell into another type of epithelial or mesenchymal cell.[3]

On the other hand, they could occur from a mammary dermoid cyst, a chronic breast abscess, or from a phylloid cystosarcoma.[3]

The average tumor size ranges from 3 to 13 cm.[4] Wargotz et al reported 22 cases of primary squamous cell carcinoma of the breast with an average tumor size of 4 cm.[5] In our patient, the reason for referral was the appearance of a breast mass and the size of the mass was 14 cm in diameter.

The histological appearance is reminiscent of squamous cell proliferation with large cells with large nuclei and eosinophilic cytoplasm. Desmosomes as well as keratin may be present. In contrast to adenocarcinomas, squamous cell carcinomas of the breast have no hormone receptors, hence their non-hormone-dependent nature and the amplification of HER 2.

Radiologically, the appearance is non-specific. It is generally a rounded, spicule-free, partially irregular mass with a necrotic or cystic center, which explains the pseudocystic or abscessed appearance.[1,2,6]

Therapeutically, the treatment of squamous cell carcinomas of the breast is no different from the treatment of other mammary carcinomas. Conservative surgery is possible for small tumors. For larger tumors, mastectomy is indicated. Axillary lymph node dissection is recommended, despite the low lymphophile character of these lesions.[7,8] As for adjuvant treatment, it combines radiotherapy and chemotherapy, hormonal treatment has no place.[8] Neoadjuvant chemotherapy is not justified for conservative treatment because of its poor results.[8]

The main prognostic factors are: tumor size, axillary lymph node invasion, fusiform component, necrosis, and cell acantholysis.[10] The prognosis for squamous cell carcinomas remains poor with an estimated mean 5-year survival of 50-63%.[9,10] Future prospects are targeted therapies, notably EGFR receptor therapy, to improve the prognosis.[10]

CONCLUSION

Squamous cell breast cancer belongs to the metaplastic type of cancer, with an unfavorable prognosis. It is often diagnosed at the stage of a large palpable mass.

Primary squamous cell carcinomas of the breast are rare. The study of larger series will provide a better understanding of their histogenesis and predict their evolutionary profile in order to better codify their management.

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REFERENCES

1. Cardoso F, Leal C, Meira A, Azevedo R, Mauricio MJ, Leal da Silva JM et al. Squamous cell carcinoma of the breast. Breast. 2000;9(6):315-9.
2. Belaabidia B, Sellami S, Hamdaoui A, Ait Ben Kadour Y, Abbassi H. Squamous cell carcinoma of the breast review of the literature: illustrated by the report of a case. J Gynecol Obstet Biol Reprod. 2002;31(1):34-9.
3. Rosen PP, Oberman HA. Atlas of tumor pathology: tumors of the mammary gland, 3th ed. Bethesda, Maryland Armed Forces Institute Pathol. 1993;203-6.
4. Melhouf MM, El Amrani N, Daude HM. Les carcinomes épidermoïdes au sein à propos de 5 cas. J le sein 1995;5(3):511-5.
5. Wargotz ES, Norris HJ. Metaplastic carcinoma of the breast VI squamous cell carcinoma of ductal origin. Cancer. 1990;65:272-6.
6. Rokutanda N, Iino Y, Yokoe T, Maemura M, Horiguchi J, Takei H, Koibuchi Y, Iijima K, Oyama T, Morishita Y. Primary squamous cell carcinomaof the breast during lactation: a case report. Jpn J Clin Oncol. 2000;30(6):279-82.
7. Todd BZ, Lawrence K, Robert JC. Pure squamous cell carcinoma of the breast in patient with previous adenocarcinoma of the breast: a case report and review of the literature. Am Surgeon. 2001;67(7):671-3.
8. Wrightson WR, Edwards MJ, Mc Masters KM. Primary squamous cell carcinoma of the breast presenting as breast abscess. Am Surg Dec. 1999;65(12):1153.
9. Hennessy B, Krishnamurthy S, Giordano S. Squamous cell carcinoma of the breast. J Clin Oncol. 2005;23(31):7827-35.
10. Tayeb K, Saâdi I, Kharmash M, Hadadi K, El Omari-Alaoui H, El Ghazi E et al. Primary squamous cell carcinoma of the breast: report of three cases. Cancer Radiother. 2002;6(6):366-8.

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