CASE REPORT – OPEN ACCESS

International Journal of Surgery Case Reports 51 (2018) 17–20

Contents lists available at ScienceDirect

International Journal of Surgery Case Reports

journal homepage: www.casereports.com

Unusual presentation of epidermoid cyst mimicking breast cancer involving the areola—Case report

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ARTICLE INFO

Article history:
Received 24 February 2018
Received in revised form 3 August 2018
Accepted 7 August 2018
Available online 13 August 2018

Keywords:
Areola
Sebaceous cyst
Epidermal cyst
Epidermoid cyst
Tumor

ABSTRACT

INTRODUCTION: Epidermoid cyst is very common benign lesion of the skin. And may appear anywhere on the surface of the body. Diagnosis is made in most cases by clinical examination, but histological evaluation may be needed in unusual cases.
PRESENTATION OF CASE: We report a rare case of a 44 year-old woman who presented with a rapidly growing inflamed mass localized to the left areola, which grew to 4 cm in diameter within a few months. The diagnosis of malignancy was ruled out following pathology examination consistent with epidermoid cyst. After a course of antibiotics, she underwent surgery with nipple sparing and reconstruction of the areola.
DISCUSSION: Preoperative diagnosis based on biopsy enable limited surgical excision and preservation of the nipple. Reconstruction of the areola by local areolar flap enable good aesthetic result.
CONCLUSION: It is important to be aware of this entity of epidermoid cyst mimicking breast cancer, and the treatment options available in these cases.

1. Introduction

Epidermoid cyst, also called epidermal cyst, is the most common cyst of the skin. It is derived from the follicular infundibulum, and can occur anywhere on the surface of the body, most commonly on the face. It usually presents with a central punctum [1–5]. Solitary or multiple cysts may occur and the progression to the progression to skin cancer like basal cell carcinoma or squamous cell carcinoma is very rare [1–6]. The diagnosis is made by clinical examination or biopsy with histological evaluation. Histologic examination shows a cystic cavity with keratin, and inflammatory infiltrates may or may not be present [1–6]. Treatment may include observation, steroid injection, complete excision, or incision and drainage of infected cysts [1,6].

The work has been reported in line with the SCARE criteria [14].

2. Case

A healthy forty-four-year-old woman presented to our breast clinic with a rapidly growing mass localized to the left areola, which reached 4 cm in diameter within a few months (Fig. 1A). The mass did not cause pain and no discharge was reported. The patient was a healthy female with no prior history of cancer, family history of breast or ovarian cancer or any other major risk factor. Physical examination of the left breast revealed a solid polypoid irregular mass involving the upper outer part of the areola without apparent involvement of the nipple. Mammography showed a lobular mass involving the areola and measuring 22 mm × 38 mm (BIRADS 0). ultrasound (US) showed a 4 cm mass with local edema and an axillary lymph node with a thick cortex (BIRADS IVa). Histopathology of an US guided Tru-Cut biopsy from the breast mass revealed an epidermoid cyst with inflammation and no evidence of malignancy. Similarly, the lymph node was negative for metastases.

Under general anesthesia, the patient underwent complete excision of the mass and involved areola with preservation of the nipple and reconstruction of the areola with rotation flap of the areola by a board-certified plastic surgeon and an oncology breast surgeon. The postoperative course was uneventful and the patient was satisfied with the aesthetic result. Histology showing skin with subcutaneous fat tissue and widened infundibula of the hair follicles, characteristic of epidermal cysts, surrounded by chronic inflammation and fibrosis (Fig. 2). There was no evidence of malignancy. No evidence of recurrence was detected after eight months follow-up (Fig. 1B).

3. Discussion

Epidermoid cysts are very common cutaneous cyst which can usually be easily diagnosed by clinical examination alone. Unusual presentation, especially in anatomic locations where they are not considered may make correct diagnosis difficult. To date, only a few cases of similar lesions have been described involving the nip-

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https://doi.org/10.1016/j.ijscr.2018.08.010

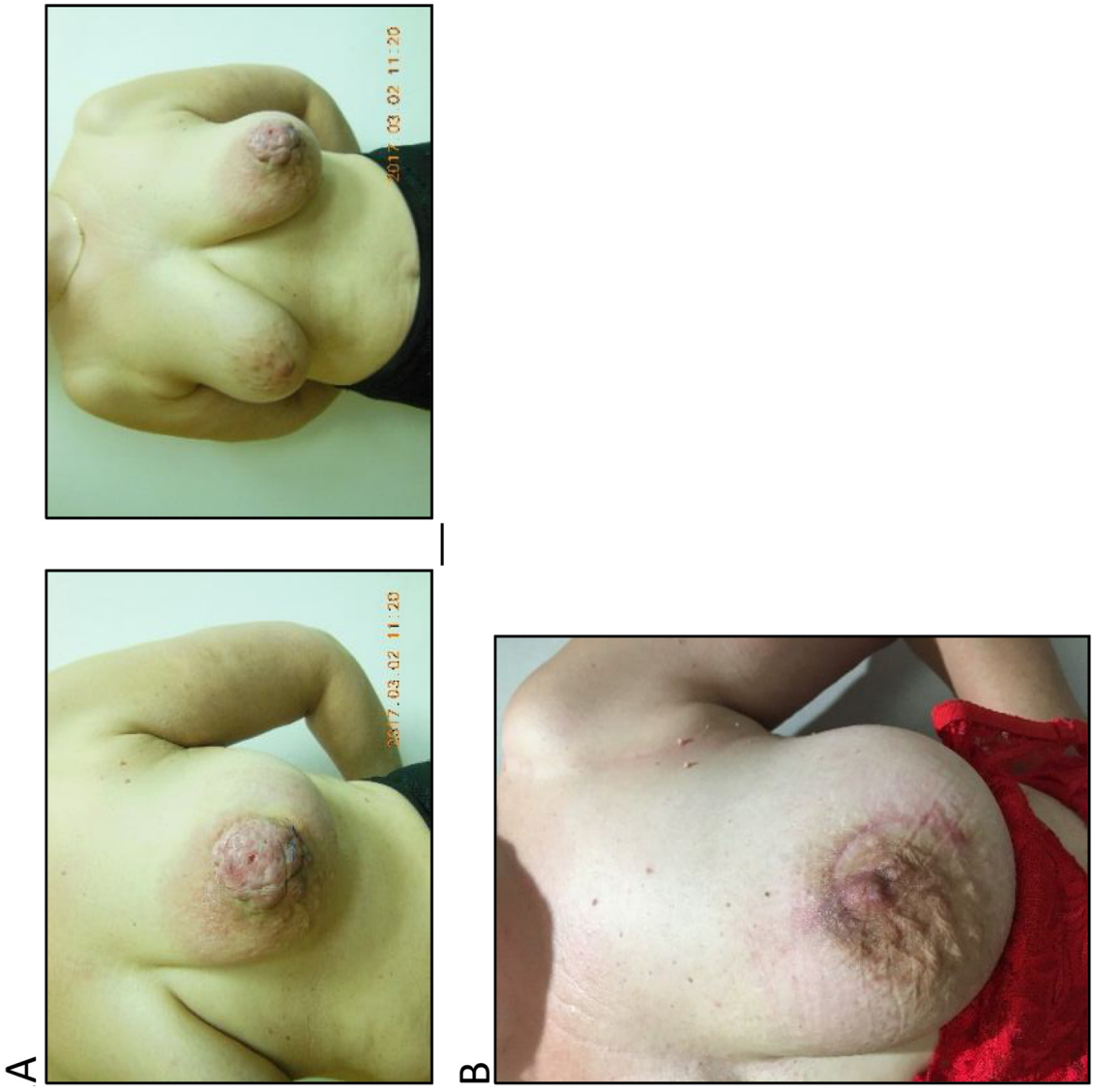

Fig. 1. (A) Epidermoid cyst in the areola of the patient. (B) Follow up after eight months following surgical excision.

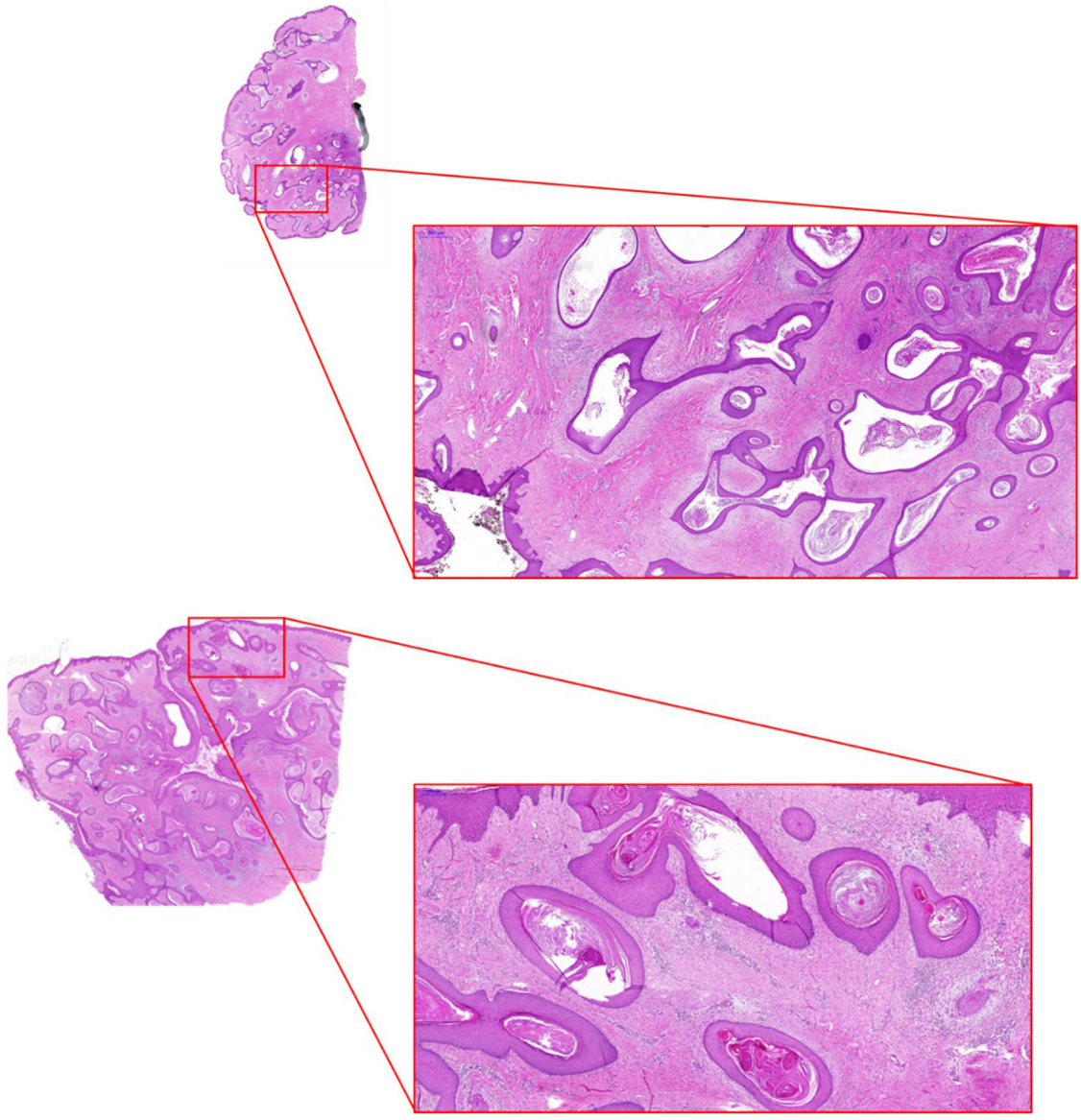

Fig. 2. Histopathologic specimen of the lesion compatible with epidermoid cyst.

ple [7–10]. To the best of our knowledge, this is one of the few, if any, described aggressive cases of an epidermoid cyst located at the areola without involvement of the nipple. In the cases described in the literature, an association was made with a previous biopsy, surgery or blunt trauma [11–13]. In our case, none of these factors were found. The clinical appearance, as well as the mammographic and sonographic features of lesions as described above may lead initially to misdiagnosis of suspected malignant tumor of the breast [1,6,7,12,13]. It is therefore important to be aware of this entity and the treatment options available particularly in young women, in order to avoid mal-treatment.

Preoperative diagnosis based on biopsy facilitated limited surgical excision and preservation of the nipple. Reconstruction of the areola by local areolar flap enable good aesthetic result and left a conspicuous scar on the areola periphery.

Conflict of interest

None.

Sources of funding

None.

Ethical approval

Ethical approval has been exempted by our institution.

Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

Author contribution

Dr. Ben Naftali – study concept or design, data collection, data analysis or interpretation, writing the paper.

Prof Hershko and Dr, Shoufani – surgeon, study concept or design, data collection, data analysis or interpretation, writing the paper.

Dr,Yehudith –Krausz - pathology.

Registration of research studies

No human research.

Guarantor

Dr. Yeela.

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