LARGE EPIDERMAL INCLUSION CYST OF THE MALE BREAST: A CASE REPORT

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ABSTRACT

A case of a large epidermal inclusion cyst was diagnosed in a 40 year- old man, presented with a left breast mass. Mammogram demonstrated a well- circumscribed mass occupying almost the entire left breast. Ultrasound showed a well-defined heterogeneous hypoechoic mass with through-transmission. Surgical excision of the mass revealed an epidermal inclusion cyst.

INTRODUCTION

Epidermal inclusion cyst of the breast is rare, particularly in the male breast. We report mammographic and ultrasonographic features of a large epidermal inclusion cyst in a 40 year- old man. Surgical excision was performed and the pathologic result verified the diagnosis.

CASE REPORT

A 40 year-old man presented with a painless left breast mass for ten years. The mass was growing slowly. Physical examination revealed a firm mass occupying almost the entire left breast. It's palpable size was measured approximately 5 x 8 cm (Figure 1). There was no skin change or axillary adenopathy. Mammographic study showed a 4.2x6.1x6.4 cm well-circumscribed mass, without microcalcification. Minimal subareolar fibroglandular tissue was seen in the right breast (Figure 2). Ultrasonography (US) of the breast showed a large well -defined oval shaped heterogeneous hypoechoic mass with posterior enhancement. No vascular flow was detected within the mass (Figure 3). The patient underwent surgical excision of the breast mass due to its large size and possible malignant transformation. Histologic study revealed an epidermal inclusion cyst without malignancy (Figure 4-5).

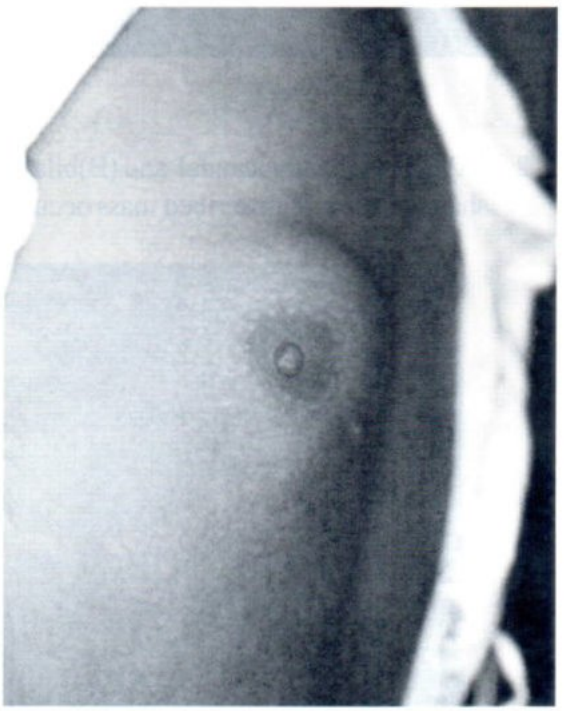

Fig. 1 Photograph shows a large mass in the left breast.

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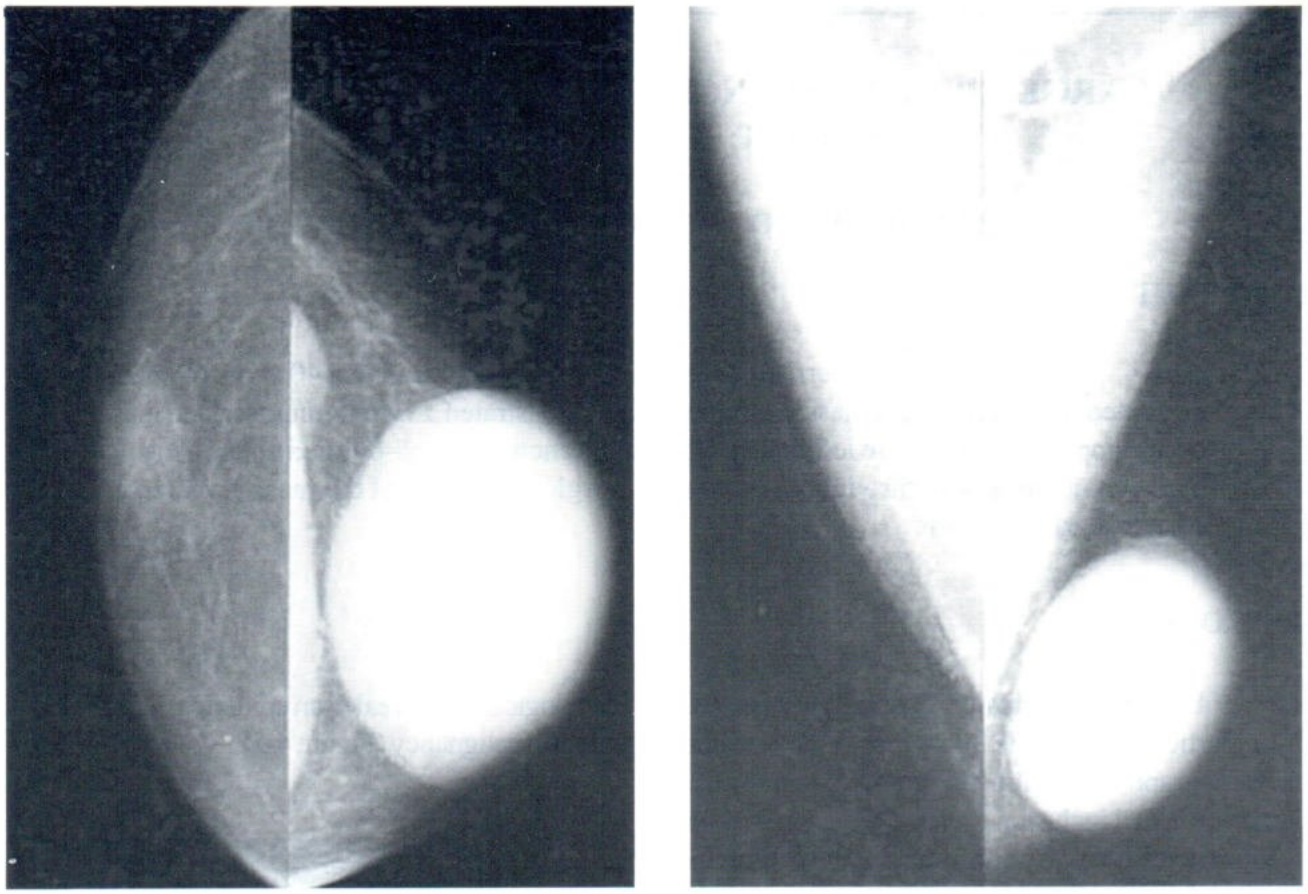


A B

Fig. 2 (A) Bilateral craniocaudal and (B)bilateral mediolateral oblique mammograms shows a large oval shaped well-circumscribed mass occupying almost the entire left breast.

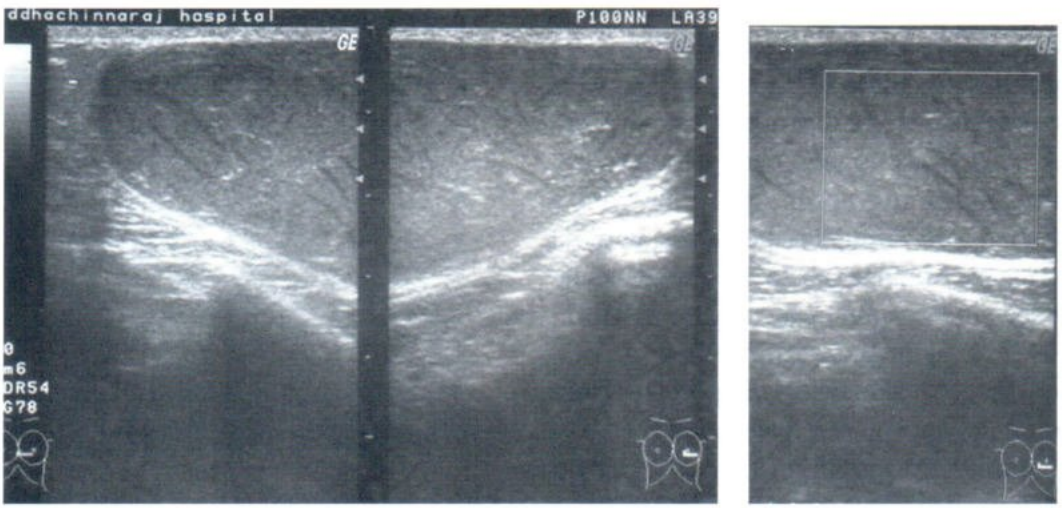
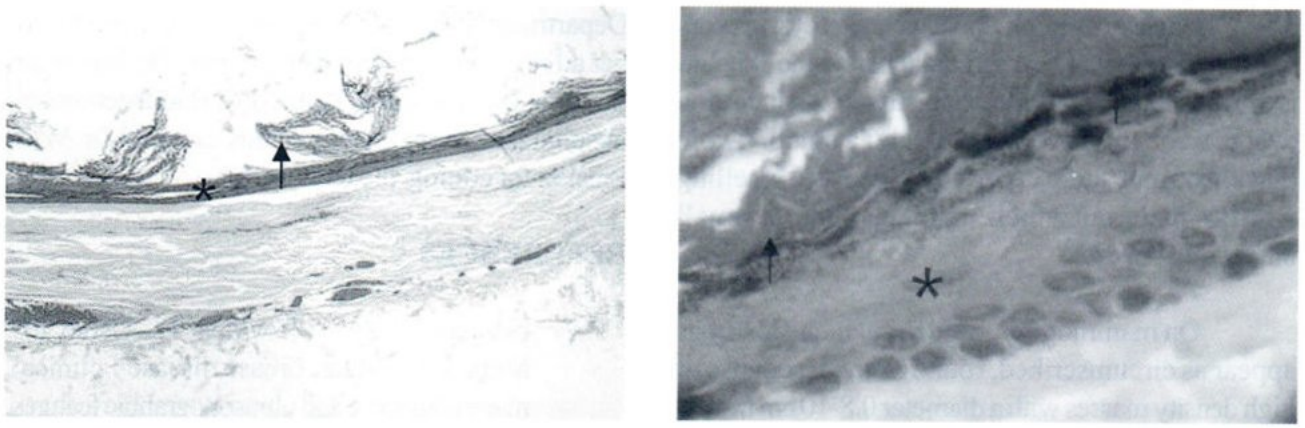


Fig. 3 (A) Transverse US scan shows a large well-circumscribed hypoechoic mass with posterior enhance ment. (B) Color Doppler US scan shows no vascular flow inside the mass.

Fig 4 Gross specimen shows an encapsulated mass.



A B

Fig 5 Photomicrographs (A) Low power magnification(H&Ex100) shows well-defined cyst wall, lined by attenuated squamous epithelium(asterisk). The cyst contains laminated keratin content(arrow) (B) High power magnification(H&Ex400) shows attenuated squamous epithelium (asterisk) and laminated keratin(arrow).

DISCUSSION

Epidermal inclusion cyst of the male breast is rare, about 0.004 % of Gunhan-Bilgen series.[1] Epidermal inclusion cyst, the most common epithelial cyst, can be found at any site of the skin surface and also involved breast, usually found near the inframammary fold or near the axilla.[2-4] It's often erroneously referred to as a sebaceous cyst. Sebaceous cyst applied only to epithelial cysts that contain sebaceous glands and appear on mammogram as radiolucent lesion because of the fatty component.[2, 5-6] Epidermal inclusion cysts are composed of stratified squamous epithelium that is nearly identical to that of the epidermis and do not contain sebaceous glands. These cysts are filled with keratin. Calcifications may be found within the keratin debris. Epidermal inclusion cysts may be congenital or may arise from obstructed hair follicles,squamous metaplasia of the ductal epithelium or trauma and even post biopsy or reduction mammoplasty.[2-3, 7-9]

Clinically, an epidermal inclusion cyst appears as a round smooth firm mass attached to the skin but is movable against the underlying tissue. An inclusion cyst is frequently accompanied by a small visible blackhead and there is periodically a foul smelling whitish material which exudates from a small blackened pore.[2,4,9]

On mammogram, epidermal inclusion cysts appear as circumscribed, round or oval isodense or high density masses with a diameter 0.8-10 cm in size, and rarely more than 2 cm. It may contain microcalcifications.[2-4, 8-9] US appearance of epidermal inclusion cysts has been described as a well-circumscribed,hypoechoic and solid or complex -appearing mass due to thick keratin content. Through transmission is present. Most cases are located between the echogenic lines that represent the superficial and the deep dermal layers. This appearance suggested cutaneous origin.[2,4,10]

Complications of an epidermal inclusion cyst include spontaneous rupture with inflammation and infection, hemorrhage and malignant transformation have been reported. If the epidermal inclusion cyst was ruptured, it may show lobulated contour. Color Doppler signals are absent in most cases, but some vascularity can be found in ruptured or complicated cysts.[2,4,10-11]

In conclusion, breast mass in males is rare and a large epidermal inclusion cyst is even rarer. Its large size gave an appearance of malignancy. Mammographic and ultrasonographic appearance of a well-circumscribed mass is suggestive of a benign lesion. However, biopsy may be necessary for the differentiation of epidermal inclusion cyst from a circumscribed malignancy.[2,12-14]

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