

Epidermal Cyst Subareolar Region of Breast – A Rare Benign Entity

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Abstract: Epidermal cyst arising from breast is an uncommon benign condition. Its rarity accounts for it being erroneously misdiagnosed. The patient may not seek medical attention because of small painless swelling, unless the lump increases in size or becomes painful. Symptomatic cases should be readily excised and need histological correlation to rule out any potential complications that can arise in these cysts.

Keywords: Benign breast lesions, breast lump, epidermal cyst.

I. Introduction

Epidermal cysts refer to cysts that result from the proliferation and implantation of epidermal elements within a circumscribed space in the dermis. Such cysts can occur anywhere in the body although they are more common on the face, trunk, neck, extremities and scalp. The occurrence of epidermal cyst in the skin of the breast is rare. Here in we report one such case.

II. Case Report

A 40-year old woman was referred to the department of surgery, JNUIMSRC hospital, Jaipur- India, in January 2017 due to painful and rapidly growing palpable mass in her left breast of 3 months duration. The medical history of patient was of undergoing twice surgery for breast lump located in subareolar area 8yrs and 3yrs back. Physical examination detected a round, cystic, non compressible mass in subareolar region of left breast. Ultrasonography exhibited a solid, heterogeneously hypoechoic, well circumscribed lesion measuring 3cmx3.5cm. An excision biopsy was performed (photo 1), pathological examination of mass detected epidermal cyst (photo 3).

Comments:

Breast epidermal cyst may arise due to various mechanisms that may result in damage to epidermis which further gets implanted deep within the breast tissue (congenital cyst secondary to obstructed hair follicles/pores, post trauma, needle biopsy)[1]. In present case implantation of epidermal cells due to previous trauma may be a reason or may be a residual cyst at previous surgeries which has recurred. Clinically, in general epidermal cysts at other sites occur as macroscopic firm nodular protrusions from the skin. Breast has flexible fat and mammary gland tissue under its skin, thus epidermal cyst grows deep inside the subcutaneous tissue and is difficult to distinguish from a breast tumor. The patient may not seek medical attention because of small painless swelling; unless the lump increases in size or becomes painful. Radiologically on mammography epidermal cyst appears as non-calcified, well circumscribed lesion, and on ultrasonography it appears as solid, circumscribed and complex mass. An onion ring pattern with alternating concentric hyperechoic and hypoechoic rings has been described corresponding to the multiple layers of lamellated keratin in epidermal cyst.[2,3]

Since epidermal cyst in breast is an uncommon lesion, its rarity accounts for it being erroneously misdiagnosed. FNAC is confirmatory in the presence of a typical pultaceous aspirate and cytomorphological features of epidermal inclusion cyst [4]. However, other author [5] did not find a single case, inspite of extensive review of literature, where the diagnosis was first made on fine needle aspiration cytology.

Epidermal cysts can cause severe complications; potential ones include spontaneous rupture leading to inflammation and abscesses. Although these cysts are benign, they may rarely have malignant transformation into squamous cell carcinoma (SCC). Cameron and Hilsinger [6] reported that malignant transformation of the cyst wall epithelium occurs very rarely (0.045%). Asymptomatic small sized lesions (<2cm diameter), if diagnosis is certain, do not require treatment [7]. Symptomatic, palpable lesions causing the patient physical and psychological discomfort, should be readily excised and need histological correlation to rule out any potential complications that can arise from these cysts [8]. The removal of entire cyst wall is recommended for pathological analysis and to prevent recurrence or malignant transformation. In our case twice surgery at same site may be due to incomplete removal of cyst wall in previous surgeries.



Photo 1 : Showing excision of cyst by peri-areolar incision



Photo 2 : shows excised specimen

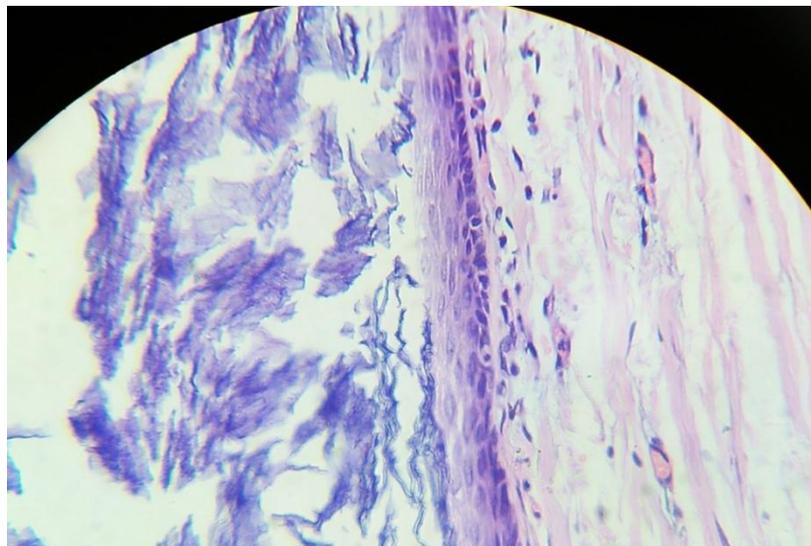


Photo 3: Showing cyst wall & Keratin

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