

**Epidermal cyst of breast – A rare lesion**

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**Abstract**

Epidermal cyst is a common clinical diagnosis. It can occur at any site, but its occurrence in the breast tissue is very rare. It may be congenital or occurring after trauma or as a result of squamous metaplasia of the columnar epithelium within an ectatic duct. Diagnosis of this entity is essential as it can rupture spontaneously and result in inflammation and Abscess. We present a rare case of epidermal cyst of a breast in a 45 years old female patient to highlight its rare occurrence.

**Keywords:** Benign breast lesion, breast lump Epidermal inclusion cyst.

**Introduction**

Epidermal cyst results from proliferation and implantation of epidermal elements in the dermis. They are common in head, neck, trunk and in the extremity regions <sup>1,2</sup>. Occurrence of epidermal cyst in the breast tissue is very rare <sup>3</sup>. Importance of diagnosing this lesion lies in the differential diagnosis of other neoplastic breast lesions <sup>4</sup>

We present a rare case of epidermal cyst of breast in a 45 years old female patient to highlight its rarity and clinical presentation.

**Case report**

A 45 years old female patient presented with lump in breast since 15 years, initially it was pea sized which gradually progressed in size. No axillary lymph nodes were palpable. There was no history of trauma or previous breast surgery. Sono mammo graphy revealed a well circumscribed lesion in the right breast in upper outer quadrant suggesting a diagnosis of fibroadenoma.

Figure 1:



Excision biopsy was done and the specimen was sent for histopathological examination.

Gross examination revealed 4.5 x 3.5 x 3 cm. cystic lesion which was soft to firm. Cut section showed a unilocular cyst with pultaceous material.

Figure 2:

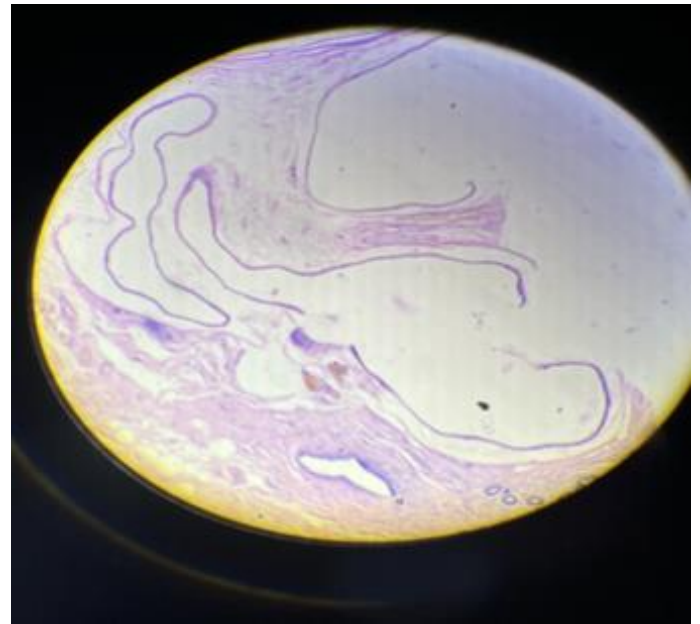


On microscopic examination, the cyst was lined by keratinized stratified squamous epithelium with lamellated keratin inside.

Figure 3:



Figure 4:



Adjacent breast parenchyma was unremarkable. Diagnosis was given as epidermal inclusion cyst.

#### Discussion

Epidermal cyst of breast is very rare. The first histologically diagnosed case of this type was reported in 1900 at John Hopkins Hospital Baltimore<sup>5</sup>. Exact pathogenesis of epidermal cyst in breast is poorly understood. Few theories regarding its etiology are reported. It can result from damage to epidermis which gets implanted within the breast tissue and it may recur after trauma, reduction mammoplasty or needle biopsy. Second theory is it can result from squamous metaplasia of columnar cells lining ducts in a fibroadenoma, fibrocystic change or phyllodes tumor. Other possibility is congenital occurrence along the lines of embryonic closure<sup>6</sup>.

In our case the mechanism may be congenital or squamous metaplasia of lining ducts as there was no history of previous surgery or trauma.

From the literature it can be seen that epidermal cyst of breast are seen in fifth decade of life and affect male patients also<sup>7</sup> our case presented at age of 45 years.

Clinically the lesion presents with a localized breast lump which grows deep inside the breast tissue. The diagnosis is usually made by breast ultrasound, mammography, fine needle aspiration cytology and biopsy. Ultra Sonography reveals a solid, circumscribed and complex mass<sup>8</sup> Differential diagnosis of this lesion includes fibroadenoma or phyllodes tumor.<sup>9</sup>

spontaneous rupture and secondary infection is commonest complication of this lesion. Rarely it can turn into malignancy. Malignant transformation appears more frequently in epidermal inclusion cyst of breast as opposed to epidermal cyst at other sites (0.045 to 1.9%). This may be associated with squamous metaplasia of mammary duct epithelium<sup>10</sup>. Treatment of epidermal cyst of breast is total excision along with its capsule to prevent its omplication<sup>11</sup>.

On histopathological examination these cysts are lined by stratified squamous epithelium with agranular keratin layer.<sup>11</sup>

### Conclusion

Epidermal cyst of breast is a rare is a rare entity and is prone to complications like rupture, secondary infection and malignancy. Excisional biopsy is recommended for definitive histopathological diagnosis.

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