

Epidermal Inclusion Cyst Mimicking as Carcinoma Breast: A Rare Case Report

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Abstract

Epidermal inclusion cyst (EIC), a benign lesion occurs due to proliferation and implantation of epidermal elements in dermis. Usual sites are head and neck region, trunk and extremities; location on breast is extremely rare. It is a diagnostically challenging entity in breast because whenever a female patient presents with a solid painless nodule/mass in breast, malignancy is the first differential arising in a clinician's mind. So it is recommended, although rare, EIC should always be considered among differentials in such cases.

Keywords: Epidermal inclusion cyst, Breast, Rare.

Introduction

Epidermal inclusion cyst (EIC) is a benign cyst arises from ectodermal tissue, historically having lot of synonyms like infundibular cyst, epidermoid cyst and keratinous cyst. The term infundibular cyst indicates its usual origin from infundibulum of hair follicle. Although the name is epidermal inclusion cyst, it is located in dermis in the form of well-circumscribed nodule. These cysts occur most commonly on the scalp and in the skin of the neck and back, whereas occurrence of these cysts in breast skin and parenchyma is very rare.¹

The origin of this cyst is considered mainly congenital, traumatic and surgery (iatrogenic).² In trauma and surgery, it results due to implantation of epidermal elements into dermis. The cyst is lined by stratified squamous epithelium that contains a granular layer and is filled with concentric layers of lamellated keratin.³

Only a few cases of epidermal inclusion cyst located on breast have been reported so far. They can mimic malignant or benign lesions of breast. Described here is one such case in a menopausal female who presented with a solid painless lump in breast and was suspected for breast malignancy clinically.

Case Report

A 48-year-old female presented at the surgery outpatient department with a painless lump in the left breast since last 6 months. On local examination, mass was located in outer upper quadrant, non-mobile, hard

in consistency measuring 3×2 cm (Fig. 1). There were no associated symptoms of nipple discharge, tenderness and no history of trauma. Skin over the swelling was normal. Opposite breast and bilateral axilla were normal. Systemic examination was within normal limits.

FNAC (fine needle aspiration cytology) smears from the mass showed many anucleate squames and few benign nucleated squamous cells along with few clusters of ductal epithelial cells with preserved myoepithelial component (Fig. 2). On the basis of these features, diagnosis of epidermal inclusion cyst was given which was further confirmed on histopathology.

Discussion

EIC is seen in various parts of the body with most common presentation on scalp, face and neck, trunk and extremities. Its occurrence in breast is rare. Based on the literature reviews, very few cases of EIC developing in the breast have been reported.

A few theories regarding their etiology have been proposed, namely, congenital development of the cyst secondary to obstructed hair follicles, injury to the epidermis resulting in epidermal fragments being implanted more deeply within the breast tissue or developed following squamous metaplasia of normal columnar cells within a dilated duct in cases of fibrocystic disease, or within a fibroadenoma or phyllodes tumors.^{4,5}

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Figure 1. 48-Year Female Presenting with Enlarged Breast with EIC on Breast in Outer Upper Quadrant

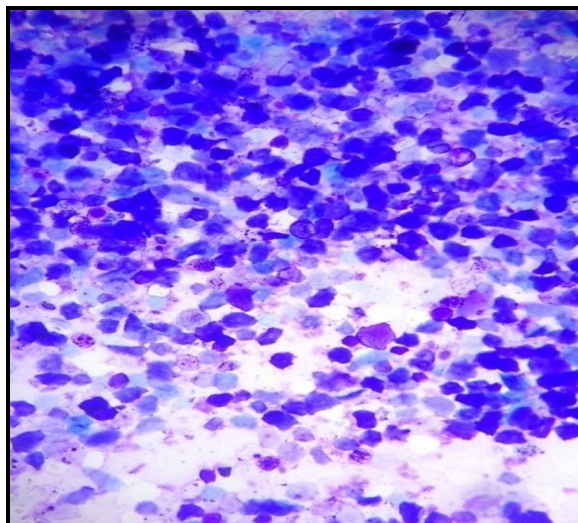


Figure 2. FNAC Smear Showing Anucleate Squames and Few Clusters of Ductal Epithelial Cells

In this case the female was 48 years old belonging to peak age group of breast cancer and also the location of lump was on the outer upper quadrant which is a preferred site of breast cancer. But on doing FNAC, all doubts were cleared and a diagnosis of epidermal inclusion cyst was given which was further confirmed on histopathology, which is a gold standard for diagnosis.

Asymptomatic stable lesions do not require treatment; and usually biopsy is unnecessary but sometimes in case of diagnostic uncertainty it should be recommended.

Excision is the most appropriate treatment, which eliminates the possible risk of malignancy in the lump. As malignant transformation, rupture and abscess formation and risk of recurrence has been reported in about 3% cases.⁶

Conclusion

Although rare, EIC should be kept among differential diagnoses of breast masses. FNAC is a simple, quick and reliable tool for its diagnosis but histopathology is both diagnostically and therapeutically beneficial.

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Conflict of Interest: None

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