ORIGINAL RESEARCH PAPER
Volume - 9 | Issue - 7 | July - 2020 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

INFECTED KERATINOUS CYST OF THE FOREHEAD - A CASE REPORT

Surgery

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ABSTRACT

Epidermal inclusion cyst is a slow growing asymptomatic benign mass which can occur in any part of the body. We are reporting a case with recurrent symptomatic lesion on the forehead which was diagnosed histopathologically as keratinous cyst with foreign body reaction. We identified a rapid growth of cyst which demonstrated the infectious process and spilling out of cystic lining which leads to acute foreign body granulomatous reaction. We suggest that complete surgical excision should be performed to avoid recurrence and must be routinely subjected to histopathologic evaluation to ensure that there is no malignancy.

KEYWORDS

INTRODUCTION

Among the cutaneous cysts, epidermal inclusion cyst is a slow-growing asymptomatic benign mass which can occur in any part of the body with variable clinical features. The primary inclusion cyst originates from infundibular region of the hair follicles where plugging of follicular orifice displays a central punctum clinically. Whereas secondary epidermal inclusion cyst arises after the implantation of follicular epithelium to dermis due to trauma.[1] With the underlying infection, the rupture of the epidermal inclusion cyst with extrusion of its content results in localized cellulitis, pain, and erythema. The higher likely hood of reoccurrence due to incomplete excision or conservative management is yet another complication.[2]

Here we are reporting a case where the patient presented with a recurrent symptomatic lesion on the forehead, and its surgical management which was diagnosed histopathologically as keratinous cyst with foreign body reaction. The case report aims to highlight the clinical presentation of the cyst as well as its management and surgical outcomes.

CASE REPORT

A 32 year old gentleman had reported to the Department of Plastic and Reconstructive Surgery of Saveetha Medical College Hospital, Chennai, with complaints of swelling and pain on the forehead region since one month. He had noticed a swelling on the forehead on left side since one year, which was spontaneous in onset with no inciting event or trauma associated. He had undergone incision and drainage else where

Physical examination revealed a soft solitary lesion of approximately 2x2 cm which was tender, with a smooth surface, non-compressible, and without overlying skin change. No punctum or discharge was noticed. Baseline investigations were performed and oral antibiotics were prescribed prior to surgical planning. Lidocaine with epinephrine is infiltrated via supraorbital nerve block and intradermally at the lateral brow. With a lateral brow incision, excision was done and dissection through subcutaneous tissue superiorly. The lesion was isolated and dissected out in toto, and skin closure performed in layers. (Figure 1) Profuse bleeding was present intraoperatively. Hemostasis was achieved after the excision of the lesion.

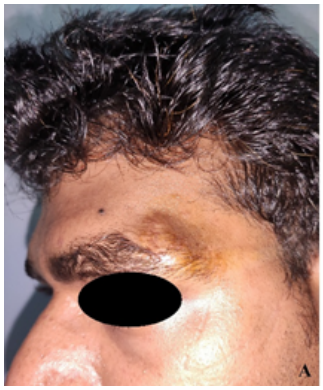
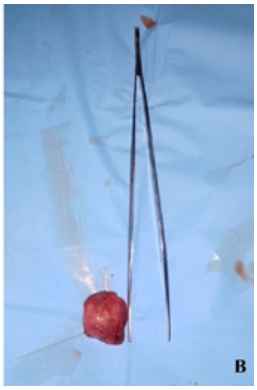


Figure1A:Clinical appearance of lesion on fore head.



1b: Lesion Completely Excised

The histopathological evaluation shows fibrocollagenous muscular wall lined by mixed inflammatory cells composed of neutrophils, lymphoplasma cells, and foreign body giant cells around the keratinous material. (Figure 2) Patient complaint of no local recurrence on regular follow up for 6 months and afterward.

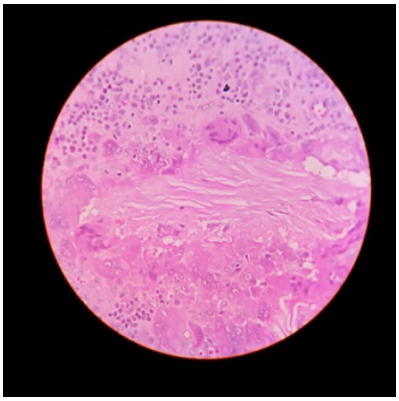


Figure 2: Fibrocollagenous Muscular Wall Lined By Mixed Inflammatory Cells Composed Of Neutrophils, Lymphoplasma Cells, And Foreign Body Giant Cells Around The Keratinous Material

DISCUSSION

Usually, epidermal inclusion cyst is benign, slow-growing sporadic, solitary lesion but may manifest as multiple in Gardner's syndrome, Basal cell nevus syndrome, or as a complication of cyclosporin therapy.[3] They are predominantly found in males (M:F=2:1).[4] Histopathologically, cyst are lined with stratified squamous epithelium that contains a granular layer and central lumen with laminated keratin.[5] The synonym of sebaceous cyst was inappropriate because of the absence of sebaceous gland in cystic lining, and it is considered as a variety of a keratinous cyst.[6,7] The complications of epidermal inclusion cyst reported were abscess formation, bleeding, and malignant change.[8]

The presented case reported a rapid growth of cyst which denotes the underlying infectious process. Rupture of the cyst with spilling out of cystic lining may lead to acute foreign body granulomatous reaction. The histopathological evaluation in our case was differed may be due to infected keratinous recurrent form. The surgical management through lateral brow yields better access as well as cosmetic results.

The study by Nigam J.S. et al on clinicopathological analysis with emphasis on unusual findings of epidermal cyst showed a size of cyst ranged from 0.3 to 9 cm and unusual locations with histopathological findings included rupture of the cyst with giant cell reaction, melanin pigmentation, and association with keloid and lipoma.[3] The malignant transformation to basal cell carcinoma or squamous cell carcinoma have been reported rarely.[7,9,10]

In conclusion, epidermal inclusion cyst, a benign tumour may present as infected keratinous cyst. The inflammatory reaction with keratin release may mimic abscess. The management with antibiotics and drainage may result in recurrence. The complete surgical excision should be performed to avoid recurrence and must be routinely subjected to histopathologic evaluation to ensure that there is no malignancy.

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