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A Rare Case of Epidermal Inclusion Cyst over Left Lower Eyelid

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Abstract: ***Epidermal inclusion cyst presents as a cystic swelling over the lid either spontaneously or secondary to trauma. Eyelid lesions are usually solitary, mobile, and less than 1cm in diameter. They may be confused with other eyelid lesions such as milia and pilar cyst. Histopathological examination shows a keratin filled cyst lined by stratified squamous epithelium, giving a final diagnosis. Here we present a case of epidermal inclusion cyst.***

Keywords: epidermal inclusion cyst, transilluminant cyst, keratin.

Key Message: Epidermal inclusion cysts appear as slow-growing, round, firm lesions of the dermis or subcutaneous tissue. These cysts usually arise from traumatic implantation of surface epidermis. Cysts may become infected or may rupture, producing a surrounding foreign body granulomatous reaction. They may be associated with Muir- Torre syndrome and Gardner syndrome, and may undergo carcinomatous change.

1. Introduction

Epidermal inclusion cyst over lid is of rare occurrence. Here we present a case of a 40 year old female who came with a complaint of a painless swelling over the left lower lid.

2. Case Report

A 40-year old female from Guntur, a cook by profession came to our OPD with a complaint of a swelling over the left lower lid anterior to the lower punctum. It started as a small swelling five years ago and gradually increased in size to reach the present size. There were no complaints of pain, irritation, diminution of vision or foreign body sensation, No history of discharge or redness, no complaints of fever or other signs of systemic infection and no history of similar swellings elsewhere in the body. There was no history of trauma and no history of any surgical procedure on the eyelid. There was no history of eye makeup usage or frequent rubbing of eyes. Patient is not a known diabetic or hypertensive.

On examination, a swelling of 5mm*5mm. was present anterior to the punctum of the left lower lid. The swelling was cystic in nature, mobile, and there was no tenderness or local rise of temperature. Visual acuity of both eyes were 6/6. On slit lamp examination, the swelling was found to be transilluminant. Conjunctiva was normal, cornea clear, pupil round and reacting to light and the lens was clear. The lacrimal duct patency was normal. The other eye was normal. Investigations done were testing Urine for albumin and sugar which were nil. B-scan was done for posterior segment pathology and it was normal. Blood pressure was 110/80 mm of Hg. Stool was tested for microova and cysts and the result was negative.

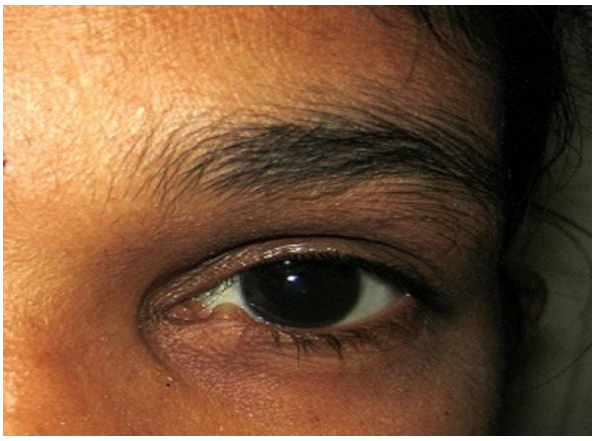

Figure 1: Preoperative photograph showing the cyst over the left lower lid

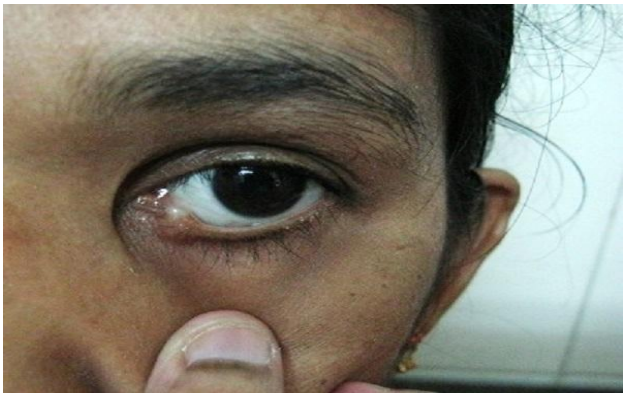

Figure 2: Photograph showing the location of the cyst anterior to the punctum

The surgical procedure was done under topical anaesthesia. Incision and drainage was done with a hypodermic needle, during which yellowish fluid was drained out. This was sent for histopathological examination, which showed that the cyst was filled with keratin, thus an epidermal inclusion cyst. Postoperative treatment was Aceclofenac and Paracetamol tablets for two days and systemic Ciprofloxacin to prevent secondary infection. Local Moxifloxacin antibiotic eyedrops were prescribed. Follow up was done on the next day, one week and two weeks later, which showed no recurrence.

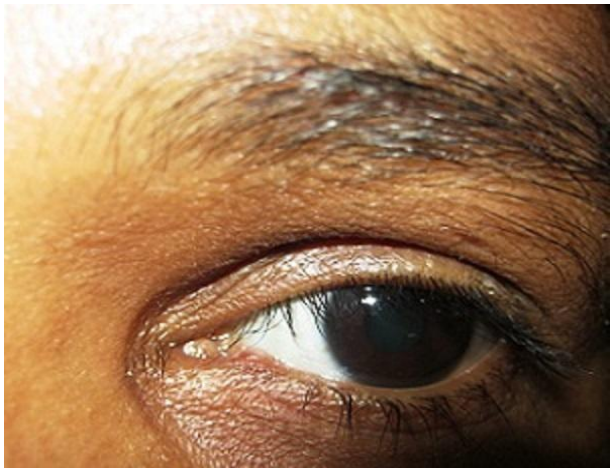

Figure 3: Photograph on the first postoperative day

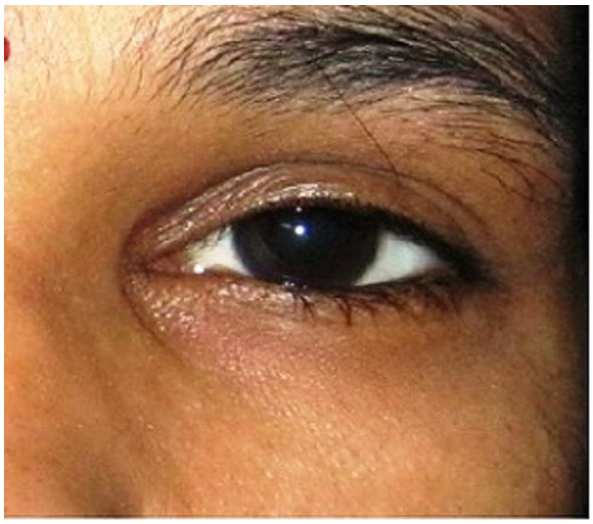

Figure 4: Postoperative photograph after one week

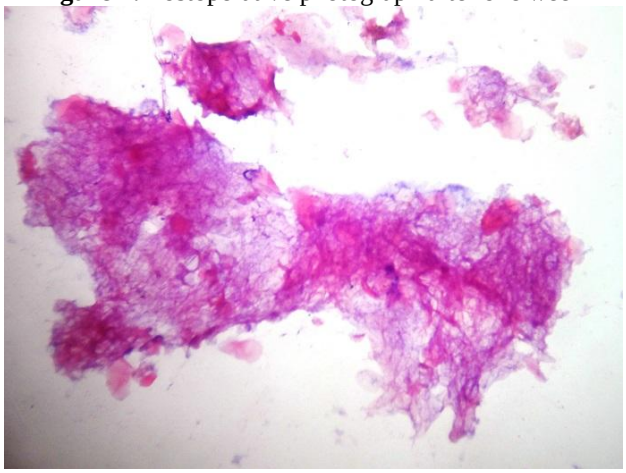

Figure 5: Histopathological examination in high magnification showing keratin

3. Discussion

Epidermal inclusion cyst is a smooth yellow freely movable subcutaneous lesion. It can be congenital or acquired, secondary to trauma or surgery. It probably arises from occluded surface epithelium or pilosebaceous follicles carried into the subepithelium. It may spontaneously rupture and cause an inflammatory reaction. Secondary infections with Staphylococcus aureus and Streptococcus pyogenes are not uncommon. Carcinomatous change is extremely rare. Associated syndromes include Muir-Torre syndrome and Gardner syndrome, both of which are associated with bowel cancer and other internal and cutaneous lesions. Torre's syndrome includes multiple sebaceous gland tumours, other cutaneous tumours and visceral carcinomas, especially of the colon. Gardner's syndrome is associated with intestinal polyposis, multiple osteomas of facial bones, fibromas and epidermal inclusion cyst of the skin, fibromatosis of the abdominal wall and breast.

Differential diagnosis includes dermoid cyst, pilar cyst, milia, lipoma, neurofibroma. Incision and drainage is an easy and fast method, but recurrence may occur. Marsupialization can be done. Larger cysts may require complete excision of the cyst along with the cyst wall.

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