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Introduction

A dermoid cyst is a developmental choristoma, lined with epithelium and filled with keratinized material. The majority of such cysts are located in the eyelids and orbit. Most dermoid cysts appear at birth, and 70% are visible by age 5. They present as soft, rubbery, mobile subcutaneous tumors. Etiologically dermoids are derived from dermal and epidermal tissues trapped in the cranial fusion lines as the neural tube closes during embryogenesis. The most common location for the dermoid cyst is the lateral one-third of the eyebrow. They are generally divided into superficial and deep lesions with deep lesions presenting later in life. Prior et al. did not find any correlation between the localization of the dermoid cyst and sex, histology, or age of the patient. [1]

Case Report History- A 27 years old male complained of swelling near the left lateral 1/3rd of the upper eyelid for 8 months, which was painless and gradually increased in size. (Fig 1) Clinical features- General & systemic examination of the patient was normal. The visual acuity of the patient was 6/6 in both eyes. Local examination- The swelling was 1.0×0.7×0.4cm, just below the right eyebrow over the lateral 1/3rd of the upper lid (Figure 1). The swelling was soft, non-tender, freely mobile, and not adherent to the overlying skin as the skin was freely mobile. Clinically it appeared that the mass was not arising or not involving the superior orbital margin as a finger was going freely between the mass and the superior orbital margin. Other examination- Extra ocular movements, anterior segment and fundus examination of both eyes were normal.

Investigation- Haemogram, Radio imaging (chest x-ray) were within normal limits. X-ray orbit showed no bony involvement. There was no intracranial involvement as suggested by the CT scan (Figure 2). Management- With proper consent from parents and anesthetic fitness the cyst was excised (Figure 3) and sent to histopathological examination. Histological examination showed a cyst lined by attenuated flat cuboidal lining. At places, columnar epithelium also seen with brownish pigment. Subepithelium shows moderate chronic inflammatory infiltrate consisting of lymphocytes, plasma cells, and histiocytes with congested capillaries. There was no evidence of malignancy.

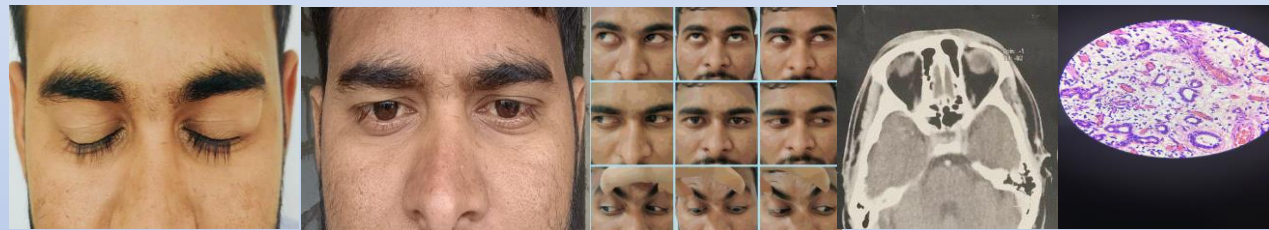
Discussion

Dermoid cyst accounts for 3-9% of orbital tumors in children and is one of the most common non-inflammatory space-occupying orbital lesions in the pediatric population. Dermoid cysts are generally thought to be congenital lesions of childhood with the vast majority presenting in the first few years of life. However, deep lesions can go undiagnosed for years and may present for the first time in late adulthood. Superficial lesions typically present earlier in life as subcutaneous, slow-growing masses and are found most commonly in the superior-temporal aspect of the orbit (external angular dermoid), arising from the frontozygomatic suture [2]. The superonasal lesions (internal angular dermoid) arising along the fronto-lacrimal suture represent the second most common type (10–46%)[3,4]. The treatment of dermoid cysts is mainly surgical.

However, With a broad differential diagnosis for lesions in this region, including encephalocele, meningocele, haemangioma, lipoma, and sebaceous cyst, multiple disease processes must first be ruled out[5,6,7]. The primary goal of excision is to remove the dermoid with the cyst wall intact without causing an iatrogenic rupture to prevent significant inflammation and recurrence. In our case since the dermoid cyst was localized and not adherent to any surrounding tissue or orbital margins simple excision of the cyst was done.

Conclusion

Periocular dermoid cysts, though often asymptomatic, require removal for both cosmetic reasons and to prevent potential complications such as bony molding and rare teratogenic transformation later in life. This case demonstrates that dermoid cysts, while typically presenting in childhood, can remain undiagnosed and manifest in adulthood. The successful surgical excision of the cyst in this 27-year-old male patient, without any adhesion to surrounding tissues or orbital margins, emphasizes the effectiveness of this approach in managing such cases. Clinicians must recognize the presentation of dermoid cysts and consider them in the differential diagnosis of orbital tumors, ensuring timely and appropriate intervention.



Pre-op

Figure 1

Post-op

Figure 3

Figure 2

Figure 5

References:

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