

## Case Report-A Large Epidermoid Cyst

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### Introduction :

Epidermoid cysts are congenital, benign, slow growing, smooth, raised, round, firm, non-tender, freely mobile masses usually less than 1 cm in diameter. They arise from hair follicles or rarely from traumatic implantation of epidermal tissue. Histologically an epidermoid cyst from both these types are identical.

### Case report :

A 16 yr old boy presented to us with a large mass measuring 4mm x2.5 mm in the superolateral aspect of the right orbit. The mass was reported to be present at birth but was smaller in size. It was painless at all times but grew with age of the child. Now due to its very big size, there was mechanical ptosis due to which his lateral vision was restricted. On clinical examination, the mass was smooth, round, firm in consistency, freely mobile involving forehead and the right upper eyelid. Supraorbital rim was not palpable below the mass. The mass had no signs of active inflammation. Anterior segment evaluation was normal. Funduscopy was normal. Gonioscopy revealed widely open angles with no other abnormalities. Unaided visual acuity was 6/6 in both eyes. Systemic evaluation revealed no abnormality.

Non-contrast CT scan showed a hypodense lesion with well defined margin measuring 43 x 28 mm in the right supraorbital region at its lateral aspect. The lesion showed attenuation value ranging from -6 to + 1.5 HU. There was no bony erosion around the mass and no intraorbital extension. These findings were suggestive of an epidermoid cyst. X ray right orbit AP and lateral view showed a soft tissue lesion without any calcification within. The superior and inferior margin of the orbit appeared normal. Based on these facts, the mass was diagnosed as epidermoid cyst and excision biopsy was planned. The mass was excised by an incision measuring 3 cm on the

lateral part of the mass. It was separated in toto, excised and the bed sutured in layers. Wound was closed with interrupted sutures. The mass was sent for biopsy. Histopathological examination revealed keratin (cheesy material) covered with squamous epithelium devoid of any other skin appendages, confirming our diagnosis. Post operatively patient had lid edema, ecchymosis and mechanical ptosis. Vision was unaffected. Ocular movements were full. Patient was put on local steroid-antibiotic drops and antibiotic ointment. The patient was followed up. Gradually the ptosis improved as the lid edema subsided. Sutures were removed on the seventh postoperative day.

### Discussion :

Epidermoid cyst is type of choristoma which is a primary orbital tumour. A choristoma is a congenital proliferation of histologically mature tissue elements not normally present at the site of occurrence. Epidermoid cyst involves a large single or multiloculated cyst cavity lined by epidermis i.e. stratified squamous epithelium which has a distinct granular layer. They are filled with keratin and typically located in the dermis. The keratin is laminated and grossly appears like a cheesy material. Sometimes the epithelium is flattened and atrophic resembling a sudoriferous cyst. In contrast to a dermoid, an epidermoid cyst contains no dermal appendages in its walls. Cyst is usually small in size < 1cm and tends to occur most characteristically in the superotemporal aspect of the orbit, often anterior to the septum orbitale but can occur in any periorbital location. In developmental terms, they result from sequestration of surface ectoderm pinched off at bone suture lines or along lines of embryonic closure. Rarely an epidermoid cyst may originate in the diploic space of the orbital bone called an Intradiploic epidermoid cyst. Epidermoid cysts are usually solitary but may be multiple in Gardner's syndrome. The cyst may ulcerate or

rupture either spontaneously or following blunt trauma leading to release of contents into soft tissues. The released keratin content incites a foreign body giant cell granulomatous inflammation. This can mimic orbital infection but radiologic evaluation revealing a cystic tumour is helpful. Tissue evaluation may reveal a foreign body granuloma as well as chronic inflammatory infiltrates. Rarely squamous cell carcinoma may develop in the cyst. Preoperative orbital imaging is indicated in if the entire cyst cannot be palpated or if orbital extension is suspected. Treatment is complete surgical excision. These lesions are very well circumscribed and can be easily dissected around the circumference leaving the lesion intact on excision. Complete excision, on the first surgical attempt eliminates the potential for cyst recurrence and rupture.



### Conclusion :

Periorbital epidermoid cyst mimic dermoid tumours. Their removal is useful to confirm the diagnosis. Other reasons for removing these lesions are to relieve symptoms created by the mass in periorbital region, to eliminate the likelihood of an inflammatory reaction after blunt trauma secondary to cyst rupture and to improve cosmesis.

### References :

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*Our duty is to encourage every one in his struggle to live up to his own highest idea, and strive at the same time to make the ideal as near as possible to the Truth.*

*Truth can be stated in a thousand different ways, yet each one can be true.*

*- Vivekananda*