

## Conjunctival Epithelial Inclusion Cyst

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### Abstract

We present a case of conjunctival inclusion cyst which was misdiagnosed as a lid swelling at first instance. The swelling moved upwards on lid closure mimicking a mobile chalazion. On lifting up the lid, the transilluminant conjunctival cyst was revealed at scleral tunnel. Histopathological examination confirmed the diagnosis of inclusion cyst. This case depicts the importance of lifting the lids and thorough examination in all cases of lid swelling because of potential underlying pathologies arising from inner coats of eye ball that can closely mimic it.

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A 67 year old male presented with complaints of painless swelling in left upper eyelid since 1 month. He had previous history of scleral fixated IOL (Intra ocular lens) implantation by X-NIT technique, 5 months back. Spot diagnosis of upper lid chalazion was made (Figure 1). Interestingly there was change in position of swelling on lid closure (Figure 2). On lifting the eyelid, cystic swelling was found at the superior scleral tunnel (Figure 3). Provisional diagnosis of conjunctival/tenon's cyst was made and excision biopsy was done. Histopathological examination confirmed the diagnosis of conjunctival epithelial inclusion cyst.

Conjunctival inclusion cysts are benign cysts filled with clear serous fluid containing shed cells or gelatinous mucous material<sup>1</sup>. It can be of congenital or acquired origin with acquired being most common. They are considered as implantation cysts where surface epithelium gets implanted into substantia propria by surgery, trauma or inflammation. It is mostly reported following pterygium, strabismus, pars plana vitrectomy, scleral buckling and SICS surgeries.<sup>1,2</sup>



Figure 2: Swelling moved upwards on lid closure

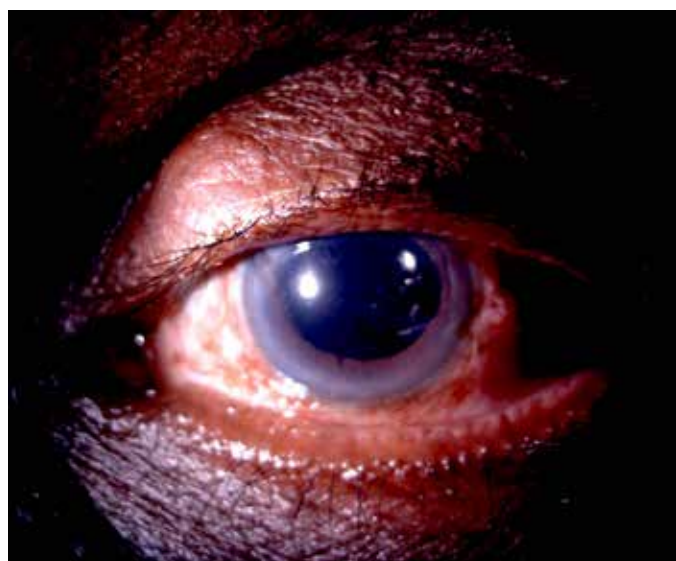


Figure 1: Upper lid swelling mimicking a chalazion



Figure 3: Superior conjunctival cyst with minimal transillumination

These cysts may disappear spontaneously, however, persistent and symptomatic cases require treatment. Since the inner epithelial lining of cyst is secretory, it usually recurs after cyst needling or just aspiration of its fluid. Hence marsupialization or complete surgical excision of cyst is the best treatment.<sup>2</sup> It has high recurrence rate due to incomplete excision because of poor visualisation of cyst margin and fragility of cyst wall. To address this, newer techniques has been devised such as staining of cyst wall using Indocyanine green (ICG) and trypan blue (TB) combined with use of ophthalmic viscosurgical devices (OVDs) to hinder its collapse during excision. Other methods proposed for removal of cysts include destroying the cyst cells by intracyst injection of isopropyl alcohol, thermal cautery, argon laser photo ablation and high-frequency radio wave electrosurgery.<sup>3</sup>

Conceivable theories for inclusion cysts at SICS scleral tunnel, as in the present case are, accidental implantation of conjunctiva during tunnel construction with poor reflection of conjunctiva following peritomy and possible dragging of conjunctiva into anterior chamber during IOL implantation. This can be avoided by making careful conjunctival peritomy with adequate exposure and good cautery.

The chief differential diagnosis for a cyst at SICS wound can be an unintended filtering bleb (UFB) post cataract surgery.<sup>4</sup> Main differentiating features are, these are usually larger, progressive and demonstrates considerable internal illumination. Associated fish mouthing of the tunnel, and internal wound gape confirmed by gonioscopy can be an added sign of leaky wound. These cysts should not be needled as it can precipitate infection and hypotony. Complete wound exploration and adequate closure of tunnel with sutures is the treatment of choice. UFB certainly depends on strength of scleral tunnel that determines its stability. Therefore care should be taken while scleral tunneling and excess cauterization should be avoided since it might interfere with primary wound healing. Adequate hydration of side port at the end of surgery normalizes the intraocular pressure which closes the roof and floor of the tunnel. If the tunnel is found unstable, closure with sutures is mandatory.

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