Conjunctival inclusion cyst, an uncommon complication of a common surgery: a case report and review of literature

Abstract

 Conjunctival inclusion cysts are benign cysts filled with serous fluid and slimy mucous secretions. They can either be congenital or acquired in origin. The acquired variety occurs due to implantation of conjunctival epithelium. It has been reported following trauma and surgeries. The incidence rate of unintended filtering bleb formation after cataract surgery is between 1% and 7.7%. To the best of our knowledge, this case report is one of the few reported in Indian literature emphasizing on the importance of factors responsible for conjunctival cyst formation and the methods to decrease its occurrence.

Keywords: conjunctival inclusion cyst

Abbreviations: SICS, small incision cataract surgery, sutureless cataract surgery

Introduction

 Conjunctival inclusion cysts are benign in nature and filled with serous fluid containing shed cells and slimy mucous secretions. They can either be congenital or acquired in origin. The acquired variety occurs due to implantation of conjunctival epithelium. It has been reported following trauma and surgeries. The incidence rate of unintended filtering bleb formation after cataract surgery is between 1% and 7.7%. To the best of our knowledge, this case report is one of the few reported in Indian literature emphasizing on the importance of factors responsible for conjunctival cyst formation after small incision cataract surgery (SICS) and its effects on vision, and the methods to decrease its incidence.

Case report

 A 65-year-old female presented with the complaint of swelling in the right upper eyelid, cosmetic concerns and foreign body sensation for the past two months. It was painless and has gradually increased in size over a period of one year. She had undergone SICS with posterior chamber intraocular lens implantation (IOL) in the right eye two years back. On examination, her best-corrected visual acuity (BCVA) was 20/20 in both pseudophakic eyes. Slit lamp examination of the right eye showed the presence of a solitary spherical cystic swelling at the superior limbus, overlying the previous scleral tunnel construction which was used for SICS. The cyst was meticulously excised with no recurrence. To the best of our knowledge, this case report is one of the few reported in Indian literature. It highlights the factors responsible for conjunctival cyst formation and the methods to reduce its occurrence.

Figure 1 (A) Photograph of the patient showing conjunctival inclusion cyst at the superior limbal region. (B) Slit lamp photograph showing conjunctival inclusion cyst with blood vessels over it and presence of serous fluid inside it.

Figure 2 Photographs showing steps of the surgery. (A) Incision around the conjunctival cyst. (B) Meticulous blunt dissection to expose the cyst. (C) Examining the integrity of the scleral wound. (D) Closure of conjunctiva.
Discussion

Conjunctival inclusion cysts can be congenital or acquired in nature. Acquired conjunctival inclusion cysts occur following trauma or surgery like SICS, phacoemulsification, strabismus surgery, pars plana vitrectomy, scleral buckling, Ahmed glaucoma valve surgery and ptosis surgery. They are most commonly seen following strabismus surgery.

The probable cause of formation of conjunctival cyst following SICS could be implantation of the conjunctival tissue in the tunnel wound or due to dragging of conjunctiva along with IOL during IOL implantation. These patients are usually asymptomatic but they may occasionally present with complaints of a gradual increase in the size of the cyst, cosmetic concerns, and foreign body sensation.

One of the most important differential diagnosis is a filtering bleb. In glaucoma surgery, a filtering bleb is intentionally created to allow for the passage of aqueous humor into the sub-conjunctival space so as to control the IOP. It might be formed unintentionally following SICS. Jain et al., observed on gonioscopy the fish mouthing of the internal opening in a cataract surgery case with unplanned filtering bleb formation. The possible complications of these postoperative conjunctival cysts could be endophthalmitis, hypotonic maculopathy, and epithelial in growth through the tunnel wound. These cysts may spontaneously disappear; however, in persistent cases, surgical management is required. Surgical excision of the cyst is the best treatment.

Conclusion

Thus, to conclude this case report emphasizes on the fact that this complication of conjunctival cyst formation following SICS can be avoided by meticulous reflection of the conjunctiva before scleral wound construction and by avoiding the IOL contact with the conjunctiva during IOL implantation.

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