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# POST CATARACT SURGERY CONJUNCTIVAL INCLUSION CYST: A CASE REPORT.

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**ABSTRACT**

**Aim**
To report the development of conjunctival inclusion cyst after manual SICS, highlight its features and possible causes.

**Case Report**
A 69-year-old gentleman underwent an uneventful small incision cataract surgery. Two months later he presented with ocular discomfort and a cystic swelling over the incision site. The cyst reoccurred 2 weeks after a needle puncture and was eventually excised.

**Discussion**
Conjunctival inclusion cyst is an uncommon complication of cataract surgery. It can present with or without symptoms and occurs due to implantation of the conjunctival epithelium underneath the stroma. Unstable scleral tunnels, mishandling of the conjunctiva among others has been implicated as causes. It can be treated by needling or excision.

**Conclusion**
Complete excision of a conjunctival cyst can prevent its recurrence and paying attention to the surgical technique can prevent the development of this complication.

**Key Words:** cataract, surgery, conjunctiva, inclusion cyst

## Introduction

Conjunctival inclusion cyst also known as retention cysts or tenons cyst are thin -walled lesions of the conjunctiva containing clear or turbid fluid.[1,2,3] They can be primary lesions or occur secondary to surgeries involving the conjunctiva. It can also occur due to lymphangiectasia and the latter may be complicated by haemorrhage. Acquiredor secondary inclusion cysts developfollowing implantation of conjunctival epithelium underneath the stroma.[3,4]

The incidence of post cataract surgery conjunctival cysts has been reported as between 1% and 7.7%.[5]

There are very few literatures identified that have reported on this complication of cataract surgery and none of this was from Nigeria. This case report is aimed at reporting the development of this complication in South East, Nigeria, and highlight its featuresand possible causes.

## Case Report

Mr. XA a 69-year-old known glaucoma patient was referred to the eye clinic for poor vision in the right eye. The loss of vision was painless and gradually progressive.

He was not hypertensive or diabetic and had no known systemic disorder.

Ocular examination revealed a visual acuity of count fingers (CF) in the right eye and 6/24in the left eye. The latter improved with pin hole to 6/9.

He had a mature cataractin the right eye and immature cataract (cortical, nuclear and posterior subcapsular) in the left eye. His cup- disc ratio was0.6 in the left eye and intraocular pressures 18mmHg and 10mmHgrespectively for the right and left eyes.

He was on topical travoprost nocte and dorzolamide/timolol combination twice a day.

With no contra-indications for surgery, he had an uneventful manual small incision cataract and a good post-operative recovery.

Two months post-surgery, he reported with complaints of ocular discomfort, heaviness, and mild drop in vision. On examination, his visual acuity was unchanged, and he had a small, vascularized cyst (bleb- like) over the surgery incision site measuring about 0.5cm x 1.0cm in size with clear fluid. The surgical incision was fairly close to the limbus.

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Figure 1: A solitary cyst overlying the incision.

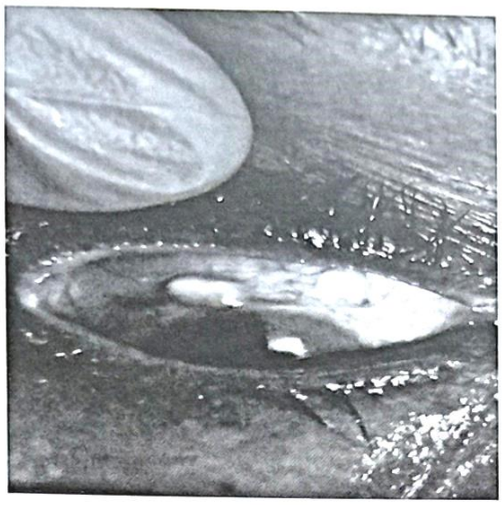

Figure 2: After needle puncture of the cyst

Figure 3: Recurrent cyst after the needle puncture

The anterior chamber was well formed, and the intraocular pressure was 12mmHg. He had a needle puncture under topical anaesthesia and placed on prophylactic topical antibiotic and anti-inflammatory drops. The cyst collapsed but there was no change in the anterior chamber depth. A week later he was feeling much better, and the eye was no longer injected. Two weeks after the initial puncture, the cyst re-accumulatedand appeared bi-lobed but this time, he had no symptoms. He had a cystexcision,but the cyst ruptured while excising it from the base. There was no positive Siedel's test however, sutures were placed over the incision site to strengthen the wound. He was placed on prophylactic topicalsteroid and antibiotics.

Eastern Heartland Journal of Medicine
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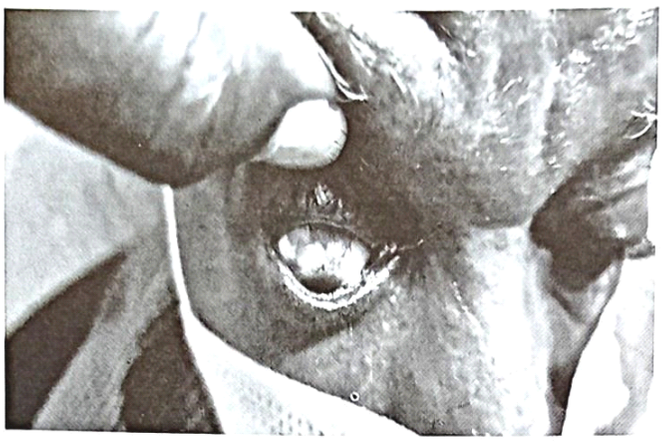
Figure 4: Six weeks post-cystectomy



## Discussion

Conjunctival inclusion cyst is not an uncommon complication of surgeries involving the conjunctiva. It has been reported following strabismus surgery, pars plana vitrectomy, phacoemulsification, subtenons injection, and cataract surgery.[6,7,8]

They usually occur as a result of implantation of the conjunctival epithelium underneath the stroma following trauma or surgery.[4]They can present at various times after an uneventful surgical procedure ranging from 2 months after surgery as in the index case to 2 years.[5,6]

While it has been reported as being largely asymptomatic, some patients may present with symptoms of foreign body sensation and cosmetic problems.[3,5]

The index case complained of ocular discomfort and heaviness but also reported a drop in visual acuity which may be attributed to the concurrent mild inflammation with conjunctival injection.

Needle puncture under topical anaesthesia was the initial method of treatment adopted in the out-patient clinic which resulted in the flattening of the cyst. Recurrence has been reported following this technique as in the index case and in other reports.[5]

However, bleeding within the ruptured cyst can promote adhesion of the cyst walls to prevent recurrence.[1]Where this fails, cyst wall excision is recommended.Needle puncture of the cyst has also been used to identify inadvertent blebs formed as a result of wound gapes resulting in direct communication between the anterior chamber and the cyst.[5]In such cases, the anterior chamber slowly shallowed following the puncture of the cyst.[9]

Suturing, autologous conjunctival autograft, and scleral cauterization are different techniques that has been adopted to prevent recurrence after excision of the cyst.[2,5,6]

While we await the long-term result of the excision carried out on the index case, other studies have reported non-recurrence after 6 months to 2 years follow-up.[2,5]

Conjunctival inclusion cysts occurring after manual SICS has been attributed to various factors which need to be considered during surgery. They include unstable scleral tunnels, poor wound healing which may be attributed to excessive cauterization and failure to recognize microleaks intraoperatively.[2,5]Minimal dissection and careful handling of the conjunctiva during surgery and implanting the IOL has been advised.

Thin unhealed sclera may act as a filtering tissue filling the bleb.[2]

Possible complications if left untreated include cyst rupture, over-filtration, hypotony and hypotony maculopathy in severe cases and endophthalmitis.

Histologically, the cyst is usually lined by a double epithelial layer.[1]

## Conclusion

Conjunctival inclusion cyst developing after MSICS can be treated by excision to prevent recurrence. However, care must be taken to avoid this complication by paying attention to the scleral tunnel formation and the other aspects of the surgery particularly the handling of the conjunctiva to prevent its development and the attendant complications that may follow.

## Conflict of Interest

Nil

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