

# Management of Post Cataract Surgery Induced Necrotising Scleritis (SINS) - A Case Report

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**Abstract:** We report a case of surgically induced necrotising scleritis after cataract surgery without any combined procedure neither a trabeculectomy nor a pterygium surgery or any retinal surgery. The patient was successfully treated with a scleral patch graft.

**Keywords:** Surgery Induced Necrotising Scleritis, Scleral patch graft, Cataract surgery, Post-operative complication

## 1. Introduction

Surgically induced necrotising scleritis (SINS) typically presents postoperatively as a focal area of intense scleral inflammation occurring adjacent to the site of previous scleral or limbal incision.<sup>[1]</sup> Surgically induced necrotizing scleritis (SINS) is a delayed hypersensitivity reaction occurring after any ocular surgery involving scleral incisions. It has commonly been reported after pterygium excision and cataract surgery.<sup>[1,2]</sup> Cataract surgeries are the second most common type of surgery associated with SINS (17.5%).<sup>[2]</sup> Early diagnosis and aggressive treatment significantly improves the outcome. Necrotising scleritis is commonly associated with collagen vascular disorders and other autoimmune diseases. But when it is seen following an ocular surgery as in our case status post a cataract case near the previous incision, it is termed as surgically induced necrotising scleritis (SINS).

It has been reported after various ocular surgeries including pterygium excisions<sup>(2)</sup>, cataract surgeries,<sup>[3]</sup> retinal detachment surgeries,<sup>[4]</sup> trabeculectomies,<sup>[5]</sup> strabismus surgeries and various implants<sup>[5]</sup> as well.

## 2. Case

We report a 51 year old male patient who presented with scleral thinning with uveal show at the previous site of cataract surgery operated elsewhere came to us for further management.

On examination, the patient had 10x5 mm wide scleral thinning at the site of previous superior scleral incision with uveal show. The glycerol scleral tissue was precisely cut using a drape sheet to the size of the scleral thinning area just like a template. It is more precise when we measure the defect first with callipers and the same may be cut through same size and shape of the drape sheet using sterilized markers and then a thoroughly dissected scleral tissue may be started to fill the diseased scleral defect.

In this case, the scleral patch graft was fitted in, using 10-0 Nylon anchoring sutures in a direction to match edge to edge from anterior to posterior extent. The key point is before laying down patch graft, thorough peritomy should be done using a normal saline to balloon up the surrounding conjunctiva and blunt dissection of tenons' capsule needs to be undermined. At the end of surgery, the entire scleral patch graft should remain covered by the conjunctiva else leading to dessication of scleral patch graft and in turn turning to a failure.

The reason of us, doing anterior to posterior direction superimposition of graft was to make sure if any border at the last remains superimposed above the other, there should be scope of fine trimming at the last but well beneath conjunctiva at the posterior border and not at the anterior border near the limbus, which can lead to irregular edges, leading to dellen formation.

The patient has been followed up for 4 weeks post operatively and has BCVA OF 6/9.

## 3. Discussion

The incidence is higher for limbal incisions than for clear corneal incisions as limbal approach causes more vascular disruption and excessive cautery to catch hold of bleeders is yet another cause.<sup>[2]</sup>

## 4. Conclusion

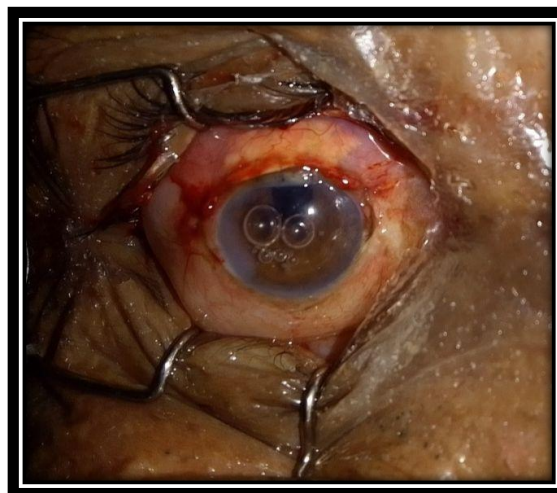
The take home message is that early diagnosis and aggressive medical and/or surgical management is necessary in surgically induced necrotising scleritis cases (SINS), and a thorough planning of proper measurements of graft and suturing expertise is a must to get good results preserving the integrity of the globe and the visual as the outcome of the surgery.

## References

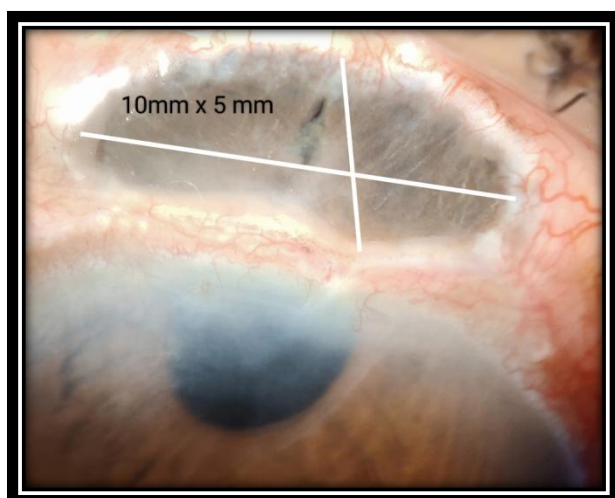
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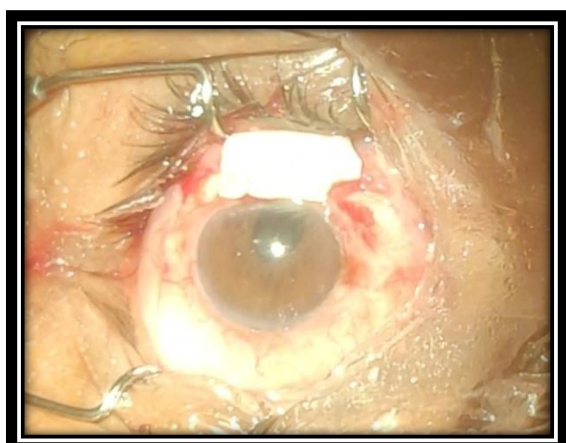
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**Figure 3:** Showing well covered scleral patch graft



**Figure 1:** Showing 10x5mm scleral thinning with uveal show



**Figure 2:** Showing per-operative scleral patch grafting