



Corneal Melt with Perforation after Pterygium Excision

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ABSTRACT: We report a case of corneal melt with perforation due to Pterygium excision. A 46-year-old male presented with sudden diminution of vision, redness and pain in the left eye since four days. He underwent primary Pterygium excision in the left eye 60 days back and repeated pterygium excision surgery 13 days back elsewhere. At the site of pterygium head excision, the cornea showed a 4× 4mm perforation with iris prolapse through it. Patient was diagnosed as Corneal perforation with iris prolapsed and an immediate full thickness corneal patch grafting was performed in the left eye.

Keywords: pterygium excision, corneal perforation, corneal patch graft.

I. CASE REPORT

A 46-year-old male presented with sudden diminution of vision, redness and pain in the left eye since four days. He underwent primary Pterygium excision in the left eye 60 days back elsewhere. A history of repeated pterygium excision surgery done 13 days back was given by the patient after which he developed the current symptoms. On examination, the visual acuity was counting finger at 3 metres with pinhole improvement of counting finger 6 metres. At the site of pterygium head excision, the cornea showed a 4 × 4 mm perforation with iris prolapse through it (Figure 1). The surrounding cornea was edematous and Descemet membrane folds were present. No infiltrate or hypopyon were seen. The anterior chamber was collapsed. Patient was diagnosed as Corneal perforation with iris prolapse post pterygium excision. An immediate full thickness corneal patch grafting was performed in the left eye. The prolapsed iris tissue was excised and a 5 × 5 mm full thickness corneal patch graft was taken and sutured accordingly (Figure 2). The anterior chamber was formed. Patient was prescribed 0.5 % moxifloxacin drops 12 times per day, Fortified ceftazoline eye drop 12 times per day, Atropine eye drop thrice a day, timolol eye drop twice a day, and lubricants 6 times per day in the left eye. Orally tablet doxycycline 200 mg BD and tablet Vitamin C 500 mg BD was given for 15 days, tablet

Acetazolamide 250 mg BD was given for 5 days. On first postoperative day, corneal haze was noted, patch graft was in situ with intact sutures and anterior chamber was well formed with visual acuity of finger counting close to face. On tenth postoperative day, few Descemet membrane folds noted, patch graft was in situ with

intact sutures, lens was clear and anterior chamber

was formed with visual acuity of finger counting 3 meter improving upto 6 metres with pinhole. On one-month follow-up, patch graft was in situ and remained clear, anterior chamber was quiet and no infiltration seen with uncorrected visual acuity of 6/36 Snellen's equivalent improving with pinhole upto 6/12. There were no signs of graft rejection on one-month follow-up. (Figure 3) and treatment was changed to combination of 0.5% moxifloxacin and 0.5% loteprednol eyedrop four times per day, timolol eye drop two times per day and lubricants 1% four times per day.

II. DISCUSSION

Pterygium is a proliferative epithelial hyperplasia with a fibrovascular growth of the subconjunctival tissue which originates at the corneo-conjunctival junction and grows onto the cornea. Surgical excision is effective for treatment of pterygium but recurrence is common. The surgical options available include the bare sclera technique combined with adjuvant postoperative beta irradiation, intraoperative or postoperative use of mitomycin C, conjunctival autograft, conjunctival limbal autograft and amniotic membrane transplantation. Serious complications include corneoscleral dellen, scleral necrosis, corneal edema and corneal perforation. If the melt leads to a perforation, like in our case, immediate patch grafting is indicated to restore the corneal integrity and prevent visual disability. Dadeya and Fatima reported one case of corneoscleral perforation after pterygium excision with a single intraoperative application of mitomycin C. Dougherty et al reported a similar case as a complication of an uneventful pterygium surgery that was performed with mitomycin C and was treated with a lamellar



keratoplasty. Corneal perforation exhibits a high ocular morbidity that can lead to further corneal damage, cataract formation, glaucoma development, endophthalmitis and even eye loss. In conclusion, corneal perforations are rare complications of an uneventful bare sclera technique. when corneal perforation is noted, lamellar keratoplasty is an optional procedure, as noted in our patient.



figure 1: Cornea showing a 4× 4 mm perforation with iris prolapse through it at the site of pterygium head excision.



Figure 2: first postoperative day of full thickness patch grafting showing a 5mm*5mm graft and a well-formed anterior chamber. Corneal haze noted.



Figure 3: One month post corneal patch grafting showing a clear and healthy graft.

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