Case Report

Scleral Necrosis in a Case of Seasonal Hyperacute Panuveitis Successfully Treated with Amniotic Membrane Graft: A Case Report

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ABSTRACT

Introduction: Seasonal hyperacute panuveitis (SHAPU) is still a dilemma in the field of ophthalmology. Every alternate odd year from September until January, children usually present with unilateral painless red eyes if not treated in a timely manner, rapidly progressing to phthisis bulbi.

Case: Case was also diagnosed as a case of SHAPU.

Observations: However, during the treatment, the patient developed spontaneous scleral necrosis, which has not been reported to date.

Conclusion: SHAPU may have different clinical presentation, therefore cases of SHAPU should be monitored and evaluated properly before initialting the treatment

Keywords: Amniotic membrane graft; scleral necrosis; seasonal hyperacute panuveitis.

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INTRODUCTION

Seasonal hyperacute panuveitis was first noticed in 1975 when several young patients presented with unilateral painless red eyes and leukocoria during September until January due to vitreous exudate progressing to phthisis bulbi if left untreated (Upadhyay and Shrestha, 2017). However, this disease entity at that time was named malignant hypotension because it rapidly led to phthisis bulbi. Since then, every odd year in Nepal, especially around the hilly region, we have been facing this peculiar disease. In 1978, Malla et al. first reported these diseases as endophthalmitis in children. Later, Upadhya et al. coined the name "Seasonal Hyperacute Panuveitis" for this disease, as it was seen during a specific season in a particular area of Nepal, Pokhara.

CASE REPORT

An immunocompetent boy in his 20s presented with redness and painless diminution of vision in the left eye for 4 days. He did not give a history of direct contact with moths, but there were moths in his surrounding environment. History of penetrating trauma to his eyes was ruled out. He gave a history of using topical medicine bought from a local pharmacy that did not improve his symptoms, but there was no documentation. Therefore, he presented it to our hospital.

At the presentation, his vision in the right eye was 20/20 and hand movement (HM) in the left eye. The right eye was clinically unremarkable, but the cornea in the left eye was hazy due to infiltration, and minimal hypopyon was noticed. Sclera was intact and had no sign of penetrating eye injury. The fundus was not visible. He was admitted with the diagnosis of severe SHAPU and was treated according to the protocol of SHAPU management.He received topical antibiotics ofloxacin eye drops every hour and prednisolone eye drops one hourly, subconjunctival injection of antibiotics Gentamicin and dexamethasone 0.3 ml once a day along with intravitreal injections of antibiotics Vancomycin 1mg, Ceftazidime 2.25 mg and Dexamethasone after vitreous tap as well as intravenous antibiotics ciprofloxacin and oral Tablet Cortilone 40mg and Tablet Ranitidine 150 mg once a day. With this treatment, his symptoms and vision gradually improved on the 7th day of admission to 20/80. On the 10th day, his vision in the left eye was 20/40, but we noticed a blackish lesion in the inferior fornix. On careful examination, scleral necrosis was noticed with exposure of uveal tissue (Fig 1). The size of the scleral perforation was 4mm x 3mm which was located approx. 9mm inferior to 6 O'clock limbus.

After 9 days of daily treatment there was improvement in signs and symptoms. Hypopyon has resolved and red glow was visible with indirect ophthalmoscopy. We planned to treat scleral necrosis with amniotic graft. Under aseptic precaution, a double-layer amniotic graft was placed over the necrosed sclera and secured with 8-0 Vicryl sutures. Protection of the eye shield at night to avoid unconscious rubbing of the eye. The fundus became visible with minimal vitreous haze. He was discharged with topical and oral antibiotics plus topical ofloxacin and oral cortilone. After two weeks of follow up his vision was 20/40 in both eyes. After more than 18 months of amniotic membrane graft, the patient is asked to send his picture which we have included in the figure caption (Fig 2).

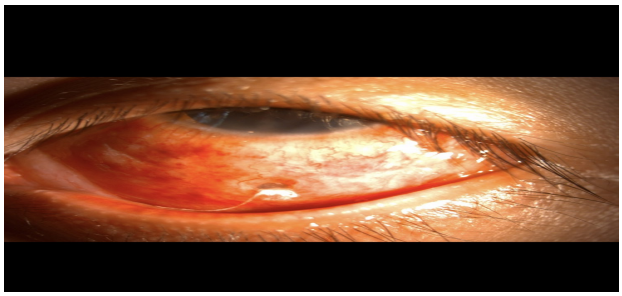

Figure 1: Picture showing scleral necrosis above the inferior fornix

Figure 2: Image showing completely healed scleral necrosis after more than 18 months.

DISCUSSION

Seasonal hyperacute panuveitis has been reported by various authors since 1978(Malla et al., 1978, Upadhyay MP, 1984, Byanju et al., 2003, Manandhar et al., 2008, Shrestha, 2010, Manandhar, 2017, Kharel Sitaula et al., 2019) with similar ocular findings: painless panuveitis affecting only one eye leading to phthisis bulbi mostly in children. The youngest reported to date is a 38 day old baby(Kharel Sitaula et al., 2019). Seasonal hyperacute panuveitis coincides with tussock moths in the environment(OK., 1978); however, later, Gazellina, a member of the Processionary moth family Notodontidae, was reported (Manandhar, 2011). These moths are seen in the environment in the post Monsoon season in hilly areas especially in and around Pokhara (Upadhyay et al., 2021) except for three patients reported in summer (Gurung et al., 2021) and Manandhar et al has also reported summer outbreak in one of the articles published in 2018(Manandhar et.al). Therefore, this disease entity is mostly from Nepal only, but few have been reported from other hilly countries such as Bhutan (Rai et al., 2020, Tamang et al., 2023). However, to date, SHAPU has a characteristic disease pattern, and no case of scleral necrosis has been reported. This case fits severe SHAPU according to the classification system (Kharel Sitaula et al., 2022). Extensive choriocapillaris nonperfusion due to choroidal inflammation can lead to necrotizing scleritis and uveal exposure (Ebrahimiadib et al., 2021).

CONCLUSION

SHAPU is still a mysterious disease with atypical presentation; however, there may be different clinical presentations. Therefore, cases of SHAPU should be evaluated thoroughly to look for scleral complications and treated immediately accordingly.

Patient consent:

Written consent was obtained from the patient to publish the data.

Disclosures:

Authors disclose no financial conflicts of interest and no other conflicts of interest.

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