Chronic vitreous haemorrhage masking fungal endophthalmitis in an open globe injury
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Abstract: Fungal endophthalmitis is a dreaded complication of open globe injury. Warning clues such as progressive decrease in vision and worsening fundus glow may not be present in a patient with persisting vitreous haemorrhage, thereby delaying prompt treatment. Relative afferent pupillary defect may be absent for prolonged periods of time. We report a case of an open globe injury with metal causing low grade fungal endophthalmitis which mimicked post-operative uveitis. Metal injury causing fungal endophthalmitis must be suspected in non-resolving uveitis in post-trauma patients who may initially respond to steroids alone.

Keyword: Fungal endophthalmitis, post traumatic uveitis, Aspergillus, chronic vitreous haemorrhage

CASE REPORT
A ten year old boy from a nearby village presented to the emergency department with alleged history of injury to the left eye with a metal bolt while watching a mechanic at work. The metal bolt ricocheted off a metal device which was being hammered using a metal hammer.

His presenting vision in the injured left eye was perception of hand movements and projection of light was accurate. There was a corneo-scleral tear, crossing the 8 o clock limbus, extending 6mm into the cornea and 4.5 mm into the sclera, the corneal component going through the pupillary axis. There was iris and vitreous prolapse and cataract was noted. There was no view to the posterior segment. CT scan of the orbit did not show any intraocular foreign body. (figure1) figure No.1: sagittal and axial CT images of the left globe showing globe rupture A posterior capsular breach was noted during corneo-scleral tear repair and lens matter aspiration

Intravitreal injections of Cefazidime, Vancomycin and Amphotericin were given. Intravenous Ciprofloxacin 10 mg/kg dose twice a day was also initiated and continued orally for the next five days.

The following day, he was noticed to have dispersed hyphema and vitreous haemorrhage. His best corrected visual acuity persisted to be less or equal to 1/60 over the next few weeks. Two months post trauma, he developed dense anterior uveitis in the same eye. His vision was counting fingers at one meter and there was no relative afferent pupillary defect. The view to the posterior segment persisted to be poor due to non-resolving vitreous haemorrhage. (Figure 2) B-Scan showed anterior and mid vitreous echoes which was thought to be due to possible retained lens matter and vitreous haemorrhage. As the anterior chamber reaction improved considerably with topical steroids, the same line of management was continued.

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In a retrospective series from India of patients who developed fungal endophthalmitis over a 14 year period, out of the 48 post-traumatic fungal endophthalmitis cases, 40% of eyes had injury with metal (27.1% with wires and 12.5% with hypodermic needles). In this study, they found lens disruption in 16 of the 48 studied eyes (33.3%), with vitreous prolapse in 13 out of 48 (27.1%). Dense vitreous exudates causing absence of red reflex were present in 6 cases (12.5%). The overall mean latent period for developing clinical signs of endophthalmitis was 6.5 days and none of the eyes had vitreous haemorrhage. Aspergillus was found to be aggressive, with a mean latent period of endophthalmitis of about 9.4 days. Aspergillus was the predominant organism in the series, forming 60.9% of cases, having the worst outcomes. The other species which were isolated were Candida spp. (13%), melanised fungi (13%) and Fusarium. In our case, the presentation was of a more indolent chronic type, with features suspicious of endophthalmitis presenting much later.

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improve inflammation initially even in cases of infection. Fungal endophthalmitis is devastating despite all forms of therapy - topical, intravitreal and systemic. Any patient that presents with a grade 4 injury or worse (Ocular Trauma Classification group) with lens injury and vitreous prolapse must keep the Ophthalmologist alert and initiate early intervention keeping the possibility of an endophthalmitis in mind, however atypical the findings may seem. References

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