

Conjunctival vegetative foreign body in a child mimicking shield ulcer

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Key words: Conjunctival foreign body, shield ulcer, vegetative foreign body

Case Report

A 3-year-old female child was brought by her parents with complaints of pain, redness, watering, and severe photophobia in the right eye for 5 days. There was no definitive history of trauma. The child had been started on topical antibiotics from elsewhere but showed no improvement. Slit-lamp biomicroscopy demonstrated a shield-like ulcer with basal deposits on the superior portion of her right cornea. There were diffuse conjunctival chemosis, congestion, and mild eyelid swelling. The child was given topical antibiotics, tear substitutes, and cycloplegics and was planned for examination under anesthesia (EUA).

EUA of the right eye showed mild chemosis, superficial conjunctival congestion, and a shield-like pentagonal ulcer with a corneal epithelial defect of size 4.5 mm × 4 mm located in the superior portion of the cornea, with edematous rounded margins [Fig. 1a and b]. No obvious signs of vernal keratoconjunctivitis (VKC) such as Horner-Tranta's spots, limbal hypertrophy, or conjunctival papillae were noted. However, on eversion of the upper eyelid, a deeply embedded vegetative foreign body covered with pseudomembrane was seen. The foreign body [Fig. 1d] was removed using forceps, and the ulcer base was scrapped with No. 15 blade to remove the pseudomembrane and sent for microbiological assessment. To expedite healing of epithelial defect, a bandage contact lens was inserted. Injection Moxifloxacin 0.3% was given in the fornix at the site of foreign body lodgment.

Microscopic examination revealed a yellowish-brown foreign body of size approximately 7.5 mm × 5.5 mm,

looking like the twig of a plant [Fig. 1e]. Gram stain of the pseudomembrane adhering to the foreign body showed pus cells with encapsulated lanceolate-shaped Gram-positive diplococci [Fig. 1f]. KOH mount did not reveal any fungal element. The material was inoculated into Robertson's cooked-meat broth and blood agar. After overnight incubation at 37°C aerobically, alpha-hemolytic colonies were observed on blood agar [Fig. 1g] which were confirmed by matrix-assisted laser desorption/ionization-time-of-flight mass spectrometry (Bruker Daltonics GmbH, Bremen, Germany) as *Streptococcus pneumoniae*. Sensitivity was done by disk diffusion method. The isolate was found to be susceptible to levofloxacin, ampicillin, erythromycin, vancomycin, and resistant to co-trimoxazole.

Postoperatively, the child was relieved of the symptoms. Bandage contact lens was kept *in situ* to hasten re-epithelialization. Topical levofloxacin 0.5% was given 2 hourly along with frequent lubrication with tear substitutes. After 3 days, epithelial defect was completely healed, leaving behind a nebular corneal opacity [Fig. 1c].

Discussion

The shield-like ulcer in the superior half of the cornea without definitive history of trauma can be misdiagnosed as VKC. However, in this case, unilateral symptoms and very young age of the patient were not supportive. Superficial conjunctival foreign bodies can lodge in the superior cul-de-sac or the sulcus subtarsalis and can often be missed if upper eyelid is not everted.^[1] Undiagnosed subconjunctival foreign bodies can present as foreign body granulomas if not removed early.^[2,3] The patient showed prompt recovery after foreign body removal and responded well to topical levofloxacin 0.5% drops.

Conclusion

Pediatric keratitis can sometimes be challenging to manage. Trauma should always be considered in the differential diagnosis of such patients even in the absence of definitive

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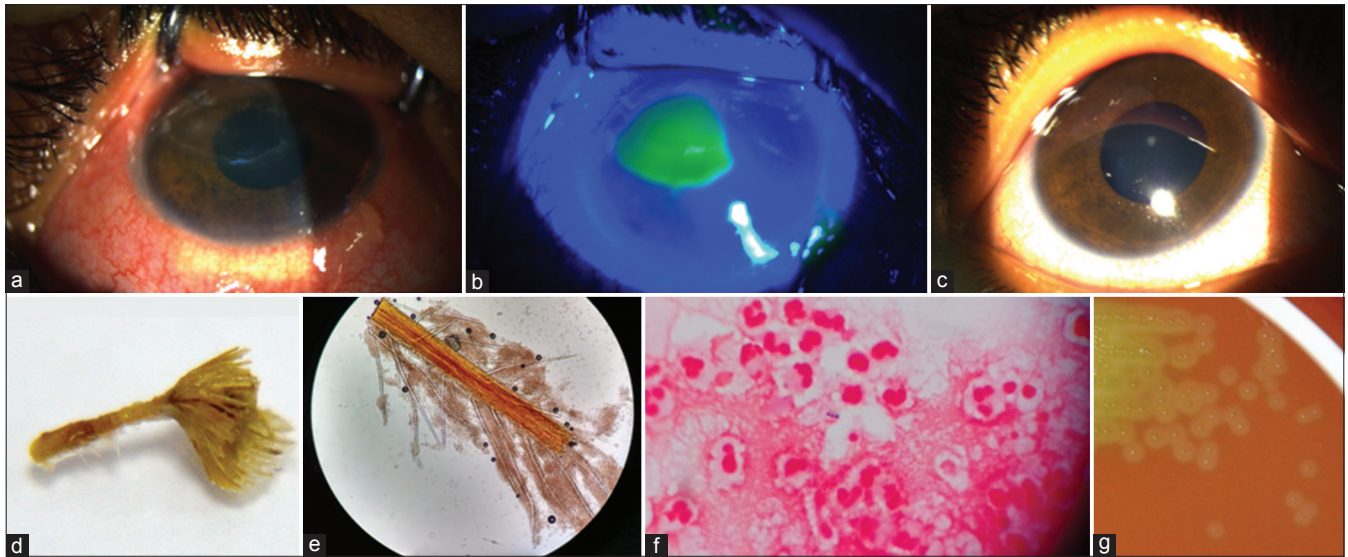


Figure 1: (a) Slit-lamp photograph showing epithelial defect of 4.5 mm × 4 mm. (b) Fluorescein staining of the right cornea. (c) Postoperative picture showing healed epithelial defect with nebulous corneal opacity at the site of lesion. (d) Gross photograph showing vegetative foreign body. (e) Microscopic view of the foreign body suggesting its vegetative nature, with small stem and vegetative outgrowths. (f) Gram-stain of the pseudomembrane showing the presence of lanceolate-shaped Gram-positive diplococci with halo. (g) Growth of alpha-hemolytic streptococci on blood agar

history of trauma. Eyelid eversion is warranted to accurately diagnose and timely extract the foreign body causing keratitis which can be uncomfortable, incapacitating, and potentially sight-threatening.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

References

1. Sihota R, Tandon R. *Parsons Diseases of the Eye*. 20th ed: Reed Elsevier India Pvt. Ltd; 2007.
2. Attada T, Narasimha Rao VV. Conjunctival foreign body a rare presentation. *Ophthalmol Res* 2015;4:93-8.
3. Mak ST, Lui YH, Li KK. Synthetic fibre granuloma of the conjunctiva. *Hong Kong Med J* 2015;21:77-9.