

Oval sign: A retained bee stinger

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Key words: Bee stinger, corneal abrasion, retained tarsal foreign body

A 50-year-old male presented with history of redness, watering, and photophobia associated with pain in his left eye for the past 1 month. He gave an alleged history of some foreign body falling in his eye a month ago while riding a bike. Visual acuity in both eyes was 20/20. Slit lamp bio-microscopy of the left eye revealed sectoral conjunctival congestion and typical brush-marks like abrasion over the inferior corneal surface [Fig. 1a], which became more obvious on fluorescein staining [Fig. 1b]. Thorough lower tarsal plate inspection revealed a typical “Oval sign” around the bee stinger [Fig. 1c]. Prompt removal of the bee stinger in conjunction with topical lubricating eye drops resulted in complete resolution of patient’s symptoms and clinical signs [Fig. 1d].

Discussion

Bee sting injuries are rare but often associated with several visually debilitating ocular complications. Typically, conjunctival foreign body granuloma is often caused by a large variety of exogenous materials (organic or synthetic).^[1] The prevailing ocular protective mechanisms naturally assist spontaneous expulsion of foreign bodies from the ocular surface. Yet, foreign bodies might be either retained on the ocular surface or embedded deep inside the conjunctiva, leading to the formation of encapsulated inflammatory granuloma around it. Redness, tearing, and irritation are typical symptoms associated with foreign bodies in the eye; however, unattended retained tarsal foreign bodies can abrade against the cornea with a consequent ulceration and eventual visual axis deterioration leading to decreased vision.^[2] While only few cases of “bee stinger granulomas” have been reported in the literature,^[3] it is believed that they

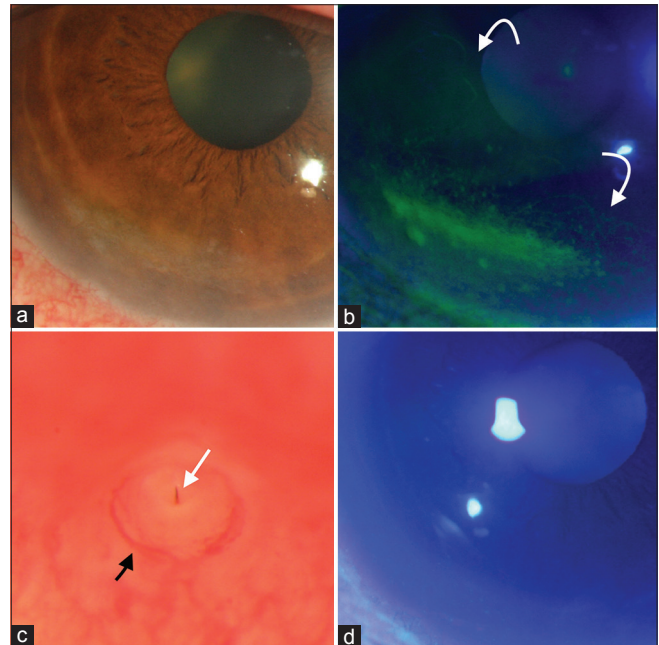


Figure 1: (a) Multiple, linear, epithelial scratches particularly over the inferior nasal quadrant of the cornea. (b) On fluorescein staining, epithelial scratches were more evident (curved white arrows). (c) The corresponding lower tarsal conjunctiva on higher magnification revealed the presence of a classic oval sign (black arrow) a circular perimeter of the conjunctival congestion that defined the extent of inflammatory response around the bee stinger (white arrow). (d) Post bee stinger removal markedly improved cornea surface

occur more frequently than detected. Ophthalmologists should include foreign body granuloma in the differential diagnoses of conjunctival granulomas, particularly when there is unilateral involvement of the inferior fornix. Prompt removal of the stinger can be performed simply at the slit lamp using topical anesthesia; our patient showed marked improvement after removal of the stinger, and finally, the granuloma faded.

Conclusion

Foreign body granuloma characteristically presents as a unilateral, conjunctival, oval-shaped nodular tissue response around the embedded conjunctival bee stinger or foreign body. Hence, an accurate diagnosis of retained conjunctival foreign body can be made by clinically eliciting the presence of the classic oval sign. Surgical removal of the bee stinger and topical steroids are the mainstay of the treatment.

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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.

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