Missed caterpillar cilia in the eye: cause for ongoing ocular inflammation

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Description
Ophthalmia nodosa is an ocular inflammatory condition caused by caterpillar cilia. Ocular involvement may occur in the form of conjunctival nodule, keratoconjunctivitis, uveitis, focal cataract and endophthalmitis. The caterpillar cilia have a typical property of migrating deep into the tissue with time and causing low-grade chronic inflammation due to the release of toxin thaumetopoein. Therefore, careful removal of all the cilia is essential to prevent delayed complications like migration of these cilia in the posterior segment.

An 11-year-old girl presented with complaints of pain, redness and watering in the right eye for 1 week. She reported a visit to her native village last week, where she accidentally rubbed an insect that was crawling on her face while sleeping on the floor. She consulted a local ophthalmologist who diagnosed her with ophthalmia nodosa and removed cilia embedded in the cornea. However, her symptoms persisted, and she was referred to our centre. At presentation, her visual acuity was 6/12 and 6/6 in the right and left eye, respectively. A careful evaluation of the anterior segment revealed multiple cilia embedded in the cornea with the presence of an epithelial defect (figure 1). On everting the lid, numerous cilia embedded in the palpebral conjunctiva with conjunctival congestion and nodule formation were noted (figure 2). Posterior segment was normal. We suspect that the primary physician missed the cilia embedded in the palpebral conjunctiva, which was the cause for recurrence of cilia in the cornea and persistence of ocular symptoms. All the cilia were carefully removed under an operating microscope view with the help of a 26-gauge needle and 25-gauge microvitrectomy forceps. Postoperatively, she was treated with a topical antibiotic, steroid and lubricant. At 1-week follow-up, there was complete resolution of symptoms and epithelial defect. The patient gained a visual acuity of 6/6.

Learning points
► A careful evaluation of the palpebral conjunctiva and fornixes is essential to avoid recurrence of caterpillar cilia in the cornea.
► Incomplete removal of caterpillar cilia from the eye can be a cause of chronic ocular inflammation.

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