

External ophthalmomyiasis in a neonate masquerading as an orbital cellulitis

Pradhnya Sen, Amit Mohan, Swapnil Jain,
Chintan Shah, Elesh Jain

Key words: Neonate, *Oestrus ovis*, Ophthalmomyiasis

A 10-days-old male neonate living in a village presented at our hospital with right eyelids swelling, discharge, redness, and bleeding for 3 days. Mother was the informant who told that they lived in a house with domesticated animals for agriculture work. The symptoms worsened in 3 days despite using tobramycin eye drops prescribed elsewhere. The patient was then referred to our hospital.

On examination, the right eye had periorbital lids swelling with erythema, conjunctival congestion and chemosis, mucopurulent discharge. The skin was red, tender and edema spread to adjacent facial area. We considered the differential diagnosis of orbital cellulitis or ophthalmia neonatorum at that time [Fig. 1a]. However, upon retracting the right eyelids under a microscope, two motile white colored small larvae with blackhead were noticed at the medial canthus. We also noticed an incomplete fistulous tract adjacently [Fig. 2a]. Larvae disappeared in the fistulous tract after light exposure. The illumination was reduced followed by instillation of proparacaine 0.5% eyedrops. The larvae were found again crawling out of fistula and were removed with the help of serrated forceps. Rest of the anterior and posterior segments were normal. The larval cutaneous infestation was also ruled out.

The diagnosis of external ophthalmomyiasis was made and the patient was admitted in view of discovering any more larvae still remaining inside. We started tobramycin



Figure 1: Sequential external photographs of child. (a) Day 1- Admission showing intense lid and adjacent facial edema. (b) Day 2- Lid edema reduced. (c) Day 3- Marked improvement enabling the child to open the eye

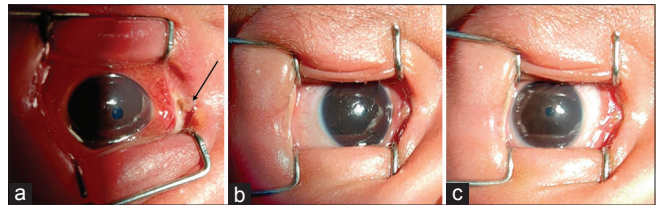


Figure 2: Sequential under microscope photographs of child. (a) Day 1 admission- Marked conjunctival congestion with chemosis. The black arrow shows fistulous track with larvae. (b) Day 2- Congestion reduced. (c) Day 3- Conjunctival congestion almost resolved

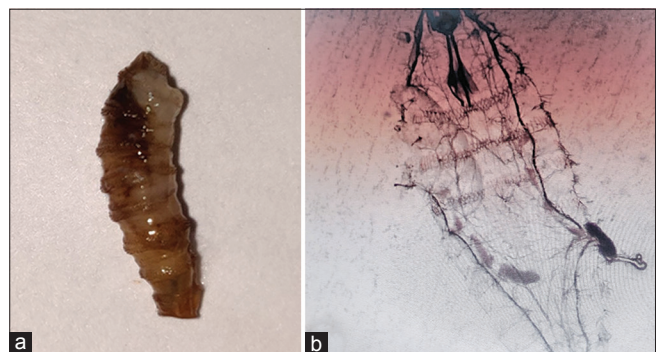


Figure 3: Microscopic magnified images. (a) Whole larva. (b) Cut section of the larva

eye ointment and fluorometholone eye drops four times a day, oral cefpodoxime six drops two times a day and oral paracetamol six drops three times a day. The condition started improving rapidly and the fistulous tract was healed and epithelialized [Figs. 1 and 2]. The patient was discharged and

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Pediatric Ophthalmology and Strabismus, Sadguru Netra Chikitsalaya and Post Graduate Institute of Ophthalmology, Chitrakoot, Madhya Pradesh, India

Correspondence to: Dr. Pradhnya Sen, Pediatric Ophthalmology and Strabismus, Sadguru Netra Chikitsalaya and Post Graduate Institute of Ophthalmology, Jankikund, Chitrakoot - 210 204, Madhya Pradesh, India. E-mail: drpradhnyasen@rediffmail.com

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the complete resolution was noted after 8 days of starting treatment. The laboratory findings noted it as the first instar larva of *Oestrus ovis* type [Fig. 3].

Discussion

Ophthalmomyiasis is an infestation of the eye with larvae and sheep nasal botfly (*O. ovis*) is the commonest cause in humans.^[1] An interesting feature of *Oestrus ovis* is that it can eject larvae in a milky fluid by the female fly while still in flight. The fly darts close to the eyes or nostrils and ejects a stream of larvae into the target area.^[2] This is usually found in rural sheep raising areas. Poor living and hygiene conditions of patients may also contribute to risk factors.^[3] Our patient also had such risk factors and being neonate protective motor reflexes to prevent crawling of insects or flies were absent.^[4]

The infestation usually causes intense conjunctival congestion, and larvae being light-sensitive hide in fornices during examination making it difficult to detect. The condition is often confused with routine infectious conjunctivitis.^[5]

To conclude, this is perhaps the youngest neonate reported having ophthalmomyiasis. Younger children in poor hygiene area may develop myiasis due to inability to protect him/herself. Myiasis must be considered in the differential diagnosis in unusual nonresponding conjunctivitis. We also stress the importance of microscopic examination in such young children.

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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