CASE NOTES

UNUSUAL FOREIGN BODY IN THE CONJUNCTIVA*

BY

E. BALAKRISHNAN, J. E. ABRAHAM, AND M. NAIMUDDIN

Government Ophthalmic Hospital, Madras

AND

L. V. DORAISAMY

Entomologist, Madras Medical College, Madras

SINCE the conjunctival sac is exposed to the atmosphere foreign bodies of various nature may enter into it. A few cases of the larvae of flies of the *Oestrus ovis* group being removed from human eyes have been reported in the literature. Herms (1950) studied a first-stage larva of *Oestrus ovis* removed from the eye of a patient by Fans. Faust and Russell (1957) stated that Lewis removed a first-stage larva from the outer canthus of the eye of a schoolboy who lived on a sheep ranch in Texas. Patton and Evans (1929) reported a case of ophthalmomyiasis from India. Duke-Elder (1952) described a case of orbital infection causing proptosis. In the case here reported a live larva was removed from the surface of the conjunctiva.

Case Report

A Sikh industrial worker attended the out-patient department with irritation and congestion of the left eye after alleged trauma in a factory.

The visual acuity in the left eye was 6/6. The conjunctiva was congested, the cornea clear, and the pupil and anterior chamber normal. There was no foreign particle nor any sign of perforation of the globe.

The eye was irrigated with magnesium sulphate lotion and Terramycin ointment was applied; 24 hours later the congestion was much reduced, but he still complained of irritation.

Examination with a loupe showed two larvae crawling on the surface of the cornea towards the upper fornix. Seen under the corneal microscope the larvae had two black oral hooks at the head end and a segmented body. During the examination one of the larvae escaped, but the other was picked up from the upper fornix with Arruga's intra-capsular forceps and was dropped into a watch glass containing normal saline, where it was seen wriggling for half an hour. It was identified as a first-stage larva of *Oestrus ovis* by one of us (L.V.D.) by the following morphological characters:

- (i) Two large isomorphic and divergent oral hooks (Fig. 1, opposite).
- (ii) Weak body spines in double rows confined to the anterior margin of each segment. There were additional rows of anterior and median spines on the metathoracic and abdominal segments (Fig. 2, opposite).
- (iii) The shape and relative size of the components of the cephalo-pharyngeal skeleton, particularly the elongated rod-shaped pharyngeal sclerites and the characteristic arrangements of the perianal spines in two groups (Fig. 3, overleaf).

* Received for publication July 10, 1962.

One of us inspected the factory and the patient's house. In the factory the patient was working near a large oven, but the house was in the open fields with plenty of bushes and flies hovering around them. On detailed questioning the patient admitted that, after the alleged injury, he returned home and slept on a cot in the open field in front of his house. He felt the irritation in the left eye the next morning.

Discussion

Oestrus ovis is a type of gadfly or bot fly, a specific myiasis-producing agent causing nasal myiasis in sheep and goats. It frequents open grass lands and the houses where sheep, goats, and other herbivorous animals are

FIG. 3.—Hinder end. $\times 400$.

kept. The female fly squirts out a milky fluid containing many larvae into the animal's nostrils where they undergo further development. Our Sikh patient was using egg albumen to comb his beard and the fly might have been attracted by it. It might have squirted the larvae into the canthus while he was sleeping, and some might then have migrated on to the surface of the globe. At his first attendance the eye was particularly examined for an iron particle, and when none was found it was irrigated with magnesium sulphate lotion, which would have washed most of the larvae away, so lessening the congestion. The two larvae were noticed accidentally 24 hours later.

Summary

A first-stage larva of the fly *Oestrus ovis* was found in the upper fornix of the eye of an industrial worker, who reported to the hospital with a suspected foreign particle after an alleged injury at a factory.

We should like to thank Dr. T. T. Ramalingam, superintendent of the Government Ophthalmic Hospital, Madras, for permission to publish this case; Dr. M. Anantharaman, Professor of Parasitology, Veterinary College, Madras, for confirming the identification of the larva and providing some references and Mr. Kumaradevan, photo-artist, for the photomicrographs.

REFERENCES

- DUKE-ELDER, S. (1952). "Text-book of Ophthalmology", vol. 5, p. 5477. Kimpton, London.
 FAUST, E. C., and RUSSELL, P. L. (1957). In "Craig and Faust's Clinical Parasitology", 6th ed., p. 875. Lea and Febiger, Philadelphia.
 HERMS, W. B. (1950). "Medical Entomology", 4th ed., p. 404. Macmillan, New York.
 PATTON, W. S., and EVANS, A. M. (1929). "Insects, Ticks, Mites, and Venomous Animals", Part I, Medical, p. 438. Grubb, Croydon.