SHORT COMMUNICATION

Canine Myiasis by Slieep Bot Fly (Diptera: Oestridae)

JAVIER LUCIENTES,[1] MONSERRAT FERRER-DUFOL,[1] MARIA J. ANDRES,[2]
MIGUEL A. PERIBAÑEZ,[1] MARIA J. GRACIA-SALINAS,[1]
AND JUAN A. CASTILLO[1]

J. Med. Eiitoniol. 34(2): 242–243 (1997)

ABSTRACT We present a case of canine infestation by 3rd instars of *Oestrus ovis* (L.) in a 10-yr-old cross-bred dog (Collie × German Shepherd) froin Fuerteventura. Canary Islands, Spain. This report confirms that this fly can develop in dogs.

KEY WORDS Myiasis, *Oestrus ovis*, Oestridae, dog, Canary Islands

Oestrus ovis (L.) is a fly whose larvae develop in the nasal fossae and cranial sinuses of sheep, goats, and some wild ruminants (Papavero 1977). This myiasis is common in ovine production areas throughout the world (Hall and Wall 1995).

Female flies deposit 1st instars into the nostnls of the host. The larvae then migrate to the nasal cavities and the paranasal sinuses where they grow, developing into 3rd instars, which feed on mucous secretions. When mature, the larvae detach from the sinus mucosa, pass to the nasal fossae and are expelled (Soulsby 1982). Under optimum conditions, development may be completed in 25–35 d. If the weather becomes cold, this period is Iengthened to as inuch as 9 mo (Hall and Wall 1995). Following expulsion, the larvae pupate within a few hours and the adult flies emerge after 2–8 wk.

In the current report, we present a case of canine parasitation by O. *ocis* which demonstrates that this species of fly can complete its development in canids.

Case Report

A 10-yr-old cross-bred dog (Collie × German Shepherd) living in a country house in Fuerteventura, Canary Islands, Spain, was taken to a veterinary clinic on 21 October 1995, presenting coughing fits but without any other clinical signs. Throat exploration did not reveal any foreign body, but the nasal cavities were not examined.

Three weeks later the dog lost its appetite and became escitable. The owner of the dog attributed the unusual behavior to the presence of a female dog in heat at the house next door.

The following week, the dog sneezed several times and expelled spontaneously, over a period of 3 consecutive days, 1 larva per day from the nasal fossae. These larvae were expelled in the presence of the owners, but it is possible that other larvae also were expelled without detection. After the larvae were expelled, veterinary exainination of the nasal fossae did not reveal additional larvae.

The veterinarian sent 1 of tlie lana to the Department of Animal Pathology of the I'eterinary Faculty, University of Zaragoza, where we identified it as a 3rd-instar O. ocis. It showed closed black spiracles and spines on the ventral part of all segments (Papavero 1977) and was fully mature, as was evident from the characteristic dark transverse bands on the dorsum. The specimen was preserved and deposited in the Entomological Collection of the Facultad de Veterinaria, Zaragoza, Spain.

Discussion

Zumpt (1965) and Papavero (1977) consider that canine and human infestations with O. ocis are accidental, and, because they are in aberrant hosts, the larvae usually are unable to develop beyond the 1st instar. Infestation, therefore. lasts for only short periods.

To our knowledge there is only 1 previous record of this kind of myiasis from an Alsatian dog in India (Tanwani and Jain 1986). In that case, the symptoms were excitation, loss of appetite, and nasal discharges combined with blood (produced when the dog sneezed). One lama was seen in the nasal cavity and removed with forceps. They identified this larva as *O. ovis* but did not record the instar. Nevertheless, complete description confirmed that it was a 3rd instar.

Dogs are not the usual host of this fly; however, it is possible that parasitation of dogs is more frequent than is generally accepted, especially in sheep dogs. The lack of specific symptoms could explain tlie difficulty of diagnosis escept in cases, like ours, where larvae are spontaneously expelled in the presence of owners.

[1]Departamento de Patología Animal (Parasitología), Facultad de Veterinaria, Universidad de Zaragoza. Miguel Servet, 177, Zaragoza-50013. Spain.
[2]Clínica Veterinaria Anubis, Sancho Panza, 16. Puerto del Rosario-35600, Fuerteventura, Las Palmas, Spain.

0022-2585/97/0242–0243$02.00/0

Acknowledgment

We acknowledge Martin J. R. Hall (Medical and Veterinary Division, Department of Entomology, The Natural History Museum, London) for his kind review of the manuscript.

References Cited

Hall, SL, and R. Wall. 1995. Myiasis of hurnan and domestic animals. Adv. Parasitol. 35: 257–334.

Papavero. N. 1997. The world Oestridae (Diptera) rnamrnals and continental drift. Series entomologica. vol. 14. Junk, The Hague.

Soulsby, E.J.L. 1982. Helminths, arthropods, and protozoa of domesticated animals, 7th ed. Ballière Tindall, London.

Tanwani, S. K., and P. C. Jain. 1986. *Oestrus ovis* larva in the nasal cavity of a dog. Haryana Vet. 25: 37–38.

Zumpt, F. 1965. Myiasis in man and animals in the old world. Butterworths, London.