

OPHTHALMOMYIASIS EXTERNA: A CASE REPORT

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ABSTRACT

A rare case of ophthalmomyiasis caused by *Oestrus ovis* was reported in tertiary care hospital RIMS, Kadapa, YSR (DT), A.P. (2015, OCTOBER). A 50 years old female who has close proximity to domestic animals presented with foreign body sensation, redness watering and pain in the right eye. On examination (they send a swab to microbiology lab) approximately 1 mm long translucent organisms with black colour heads were noticed and identified as *Oestrus ovis*. This type of case have been reported from various regions of the world

but very few cases from India.

KEYWORDS: Ophthalmomyiasis externa, ocular infection, larvae of *Oestrus ovis*.

INTRODUCTION

Human Ophthalmomyiasis externa is due to *Oestrus ovis* commonly seen in the tropical countries with large fly populations refers to the rare parasitic infestation of the eye and ocular adnexa. Less than 5% of human myiasis cases involve eye.^[1] There are three types Ophthalmomyiasis based on the portion of the eye involved. 1: Ophthalmomyiasis externa in which only conjunctiva is involved, if not recognized and managed promptly it can lead to 2: Ophthalmomyiasis interna (the larvae invade the ocular globe that can be visualized in sub retinal space and in the vitreous cavity). 3: orbital Ophthalmomyiasis- due to invasion of the orbit². In most cases human Ophthalmomyiasis due to *Oestrus ovis* could be regarded as occupational disease of shepherds and often associated with farming communities where the risk of infestation may be very common.^[3]

CASE REPORT

A 50 years old female farmer presented to outpatient department of Ophthalmology, RIMS, kadapa with complains of foreign body sensation, watering, redness and pain for three days. She had been apparently healthy before, when she complained that something had entered her

right eye when she was standing near a group of sheep. On Ophthalmic examination revealed that visual acuity was normal. But the conjunctiva of right eye was congested with lacrimation. On slit lamp examination they noted 1 mm larvae and they sent with swabs to microbiology lab.

The larvae were mounted on the microscopic slide and examined under 100 X and 400 X magnifications they were identified as first instars of *Oestrus ovis* (sheep nasal botfly), which is a larvae dipteran, on the basis of spindle shaped, with a pair of sharp dark brown oral hooks connected to the large internal cephalopharyngeal skeleton and by tufts of numerous brown hooks on the anterior and lateral margins of each body segments. After removal of larvae the patient was treated with anti-biotic and anti-inflammatory drugs.



Fig-1 Microscopic picture of *Oestrus ovis* larvae

Pics of oestrus ovis

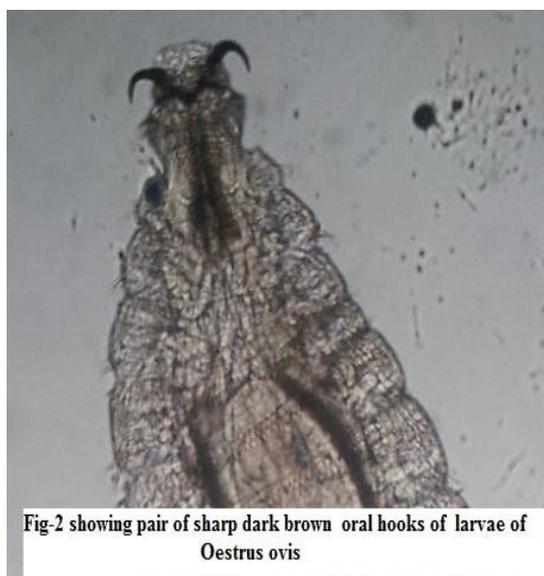


Fig-2 showing pair of sharp dark brown oral hooks of larvae of *Oestrus ovis*



Fig-3 congestion, lacrimation with redness of eye

DISCUSSION

Ophthalmic myiasis is caused by deposition of fly larvae in the human eye. Various species mainly 3 dipteran families are main cause of myiasis those are oestridae, calliphoridae (blow flies), sarcophagidae (flesh flies).^[1] But in these most common by *Oestrus ovis*, from the class: Insecta, order: Diptera, family: Oestridae.

Human Ophthalmomyiasis was first reported by Keyt in the year 1900 and later on, from India by Elliot in 1910.^[2] This can be caused by sheep blot (*Oestrus ovis*).

This adult fly is about twelve mm and blackish brown. It is a cosmopolitan parasite of sheep & goats. It is a hairy, yellowish, bee like fly.^[3] These larvae get attach to mucous membrane of nose & penetrate sinuses. Here maturation of larvae occurs These mature larvae fall from the nose on ground and pupate. After 3-6 weeks adult flies emerge from the pupae. These may live up to one month. Female flies are capable of ejecting a jet of larvae while in close proximity to the eye. Thus fly can hit the eye or larvae can enter eye through the contacts of sheep. Further stages not occur in the human eye only first stage larvae can survive for few Days. Man is an accidental host.^[4] Human Ophthalmomyiasis is due to *Oestrus ovis* is not new, several cases have been reported from different places of the world, from Pakistan, Italy, USA, & India. In India mainly from Tamilnadu Maharashtra, & Andhra Pradesh. These all cases are seen from rural areas in shepherds & farmers.

A study from Turkey also found high prevalence rate of parasitic infestation in sheep, in all four seasons of the year.^[5]

Myiasis should be considered as an occupational disease among farmers and shepherds when we get awareness on larval conjunctivitis in rural areas that can lead to early diagnosis, specific therapy for the disease and also prevent further complications.

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