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Case Report

External Ophthalmomyiasis - A case report

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ABSTRACT

Ophthalmomyiasis is an infestation of the eye with larvae of most common sheep nasal botfly. A 32 year old man who presented with the symptoms of ocular foreign body sensation, redness and excessive tears from his right eye. The causative larvae were removed and sent to the microbiology laboratory for identification. It was identified as Oestrous ovis. The patient symptoms improved after a course of treatment with antihistamine and antibiotic therapy.

KEYWORDS: Ophthalmomyiasis; *Oestrous ovis,* larvae.

INTRODUCTION

Myiasis is a well known zoonotic disease that affects human and animals with larvae of certain flies. Many cases have been reported in south India. Ophthalmomyiasis is of three types, external where larvae deposited on the eyelid or ocular surface, internal type where larvae penetrate the globe and can be seen in the vitreous cavity or subretinal space. Myiasis in man is generally infested when the standard of hygiene is low and there is abundance of fly in the locality, cattle, sheep and horse and man is an accidental host. Various species of flies are able to cause Ophthalmomyiasis but the most common is Oestrous ovis (90%) which was first described by James in 1974.[1]

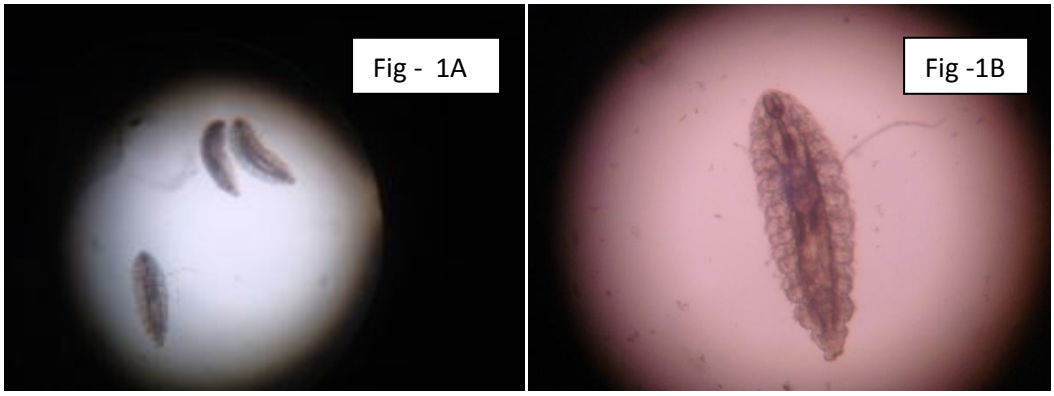
Human Myiasis mostly occurs in rural areas where people live in close proximity with animals. Involvement of O.ovis in the form of external ophthalmyiasis only which is confined to the conjunctiva, eye lid, and lacrimal duct as the first stage larvae had no bite organs and are unable to secrete any proteolytic enzymes. Skin is the most common organ of infestation, but larvae have been removed from eyes, ears, nose intestine and urogenital tract.[2] The treatment consists of a mechanical removal of the larvae after an application of topical anesthetic agents and use of topical antibiotic–steroid combination. The symptoms resolve immediately after the removal of larvae. [3]

CASE REPORT

A 32 year old male carpenter presented to the Ophthalmology Department complaining with a history of foreign body sensation, redness, excessive watering from his right eye, and a moving foreign object in his right eye. On examination his visual acuity was 20/20 in both eyes. The eyelids of the affected eyes were absolutely normal. There was some congestion in the affected eye. Extra ocular movement was full. On slit lamp examination, tiny translucent larvae with dark heads were seen crawling over the upper palpebral conjunctiva, medical and lateral were observed. Three larvae removed using cotton applicator under local anesthesia.

On macroscopic examination, the size of the larva was 2-3mm, milky white and moving fast, microscopic examination revealed spindle shape, segmented body and two large oral hooks connected to a white cephalo pharyngeal skeleton, the larvae also have numerous inter segmental rows of tiny spines on the anterior margin of each segment. It was identified as larvae of Oestrous ovis.(Fig- 1 A and B) This case was treated with topical antihistaminic drugs and antibiotics. During the follow-up the patient was seen 3 days post treatment, the patient was completely relieved of his symptoms and completely normal.

Figure :1 A and B shows the microscopic view of structure of the *O. ovis* larva



DISCUSSION

Ophthalmomyiasis is an infection of the eye with larvae of most commonly sheep nasal botfly (*O. ovis*). Many cases have been reported from various parts of India. Only a few cases have been reported in south India. Our case is exclusively of the external type where the larvae were seen on the conjunctival surface. Senthilvel [4] et al from Salem district of Tamil Nadu, Sreejith [5] et al from Hyderabad and Seema [6] et al from Maharashtra reported fewer cases of O. Ovis infections in humans. This is common in rural areas and sheep raising areas. Sucilahang [7] from Tirunelveli has reported a series of 10 cases. External Ophthalmomyiasis manifests as acute conjunctivitis with symptoms similar to those presented in this case. [8]

Therefore, ophthalmomyiasis externa caused by *O. ovis* should not be regarded as a benign condition and should be treated promptly to prevent serious complication such as corneal ulcer, decreased vision, and invasion into eye globe, causing endophthalmitis, iridocyclitis, and even blindness which has been reported in the past.[9] However, none of these complications were encountered in our patient. It may have been due to a small number of larvae, i.e., only 3 in our case, and a short history of 3 day duration. The present case highlights, it creates awareness among the ophthalmologists regarding larval conjunctivitis as one of the causes of conjunctivitis during the spring and summer seasons, especially in developing countries like India, where the general standard of hygiene is low and there are a large number of flies around.

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