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Case Report

Classical External Opthalmomyiasis in Kuppam Andra Pradesh – A Case Report

Muralidhar. C. A [1], Moinuudin Khaja.S[2*]
[1]Assistant Professor, Department of Ophthalmology, Pesimsr Kuppam, Andra Pradesh.
[2] Tutor Department of Microbiology, Vinayaka Missions Medical College, Karikal

Corresponding author
Moinuudin Khaja.S

Abstract: *Oestrus ovis* is the most common cause of human ophthalmomyiasis. It typically occurs in persons who work in farms, yards and paddy fields. The incidence commonly reported in the evening times. The signs and symptoms resemble same as conjunctivitis. The physical symptoms noticed after infection may prolong for more than four days. The common symptoms noticed are foreign body sensation, itching, redness, and watering in the affected eyes. The organism suspected was *Oestrus ovis* which belongs to class of sheep bot fly group. Our report was to state the occurrence of External Ophthalmomyiasis among the rural people is not very uncommon as noted in our experience at kuppam. Andhra Pradesh.
Keywords: Ophthalmomyiasis, *Oestrus ovis*, parasite infection, conjunctivitis.

INTRODUCTION

Infestation with larvae in the eye is known as myiasis. Ophthalmomyiasis externa refers specifically to infestation that involves the lids and conjunctiva of eye [1]. *Dermatobia hominis* is a common organism which has wide range of role in Ophthalmomyiasis. Sigauke et al [3] proved that this organism can cause myiasis as well as it create rebound allergy around sclera. *Oestrus ovis* larvae are the most common parasite of north east and Mediterranean countries. Myiasis is the infestation of tissues and organs of animals or man by fly larvae. Ophthalmic myiasis has been reported of various world regions [3]. In this study we present the clinical manifestations with ophthalmomyiasis caused by *Oestrus ovis* larvae in farmers from rural part of kuppam. In the sheep farm the standard of hygiene is always very low and there are no techniques adopted to stop the activities of these insects. We have been observing frequent incidences of occupational ocular myasis of such kind in workers of sheep farm. All of the patients were farmers, in close contact with sheep, goat pigs most of the patients presented with severe conjunctivitis [1, 3, 4]. There are 3 different forms of Ophthalmomyiasis based on the portion of the eye involved.1-Ophthalmomyiasis externa- results from infestation of the conjunctiva. Ophthalmomyiasis interna results when the larvae penetrate the ocular globe, and can be visualized in sub retinal space and in the vitreous cavity. Orbital Ophthalmimyiasis- the least common of the three conditions is due to invasion of the orbit. The common site of larvae was observed in the bulbar conjunctiva. Immediate removal of parasite with sterile and proper dose of drugs on eye can protect the eye from inflammation and wound healing process can be lasting for 12 hours -48 hours .Our case report was based on the frequent infestation of parasite found on paddy field works of kuppam district.

CASE REPORT

A 39-year-old male farmer reported being hit in the eye by a fly while he was weaving the paddy. Neighbors of the farmer immediately irrigated the eye with cool sterile running water which was stored in bottle beside. After onset of fifteen minutes the irritation of eye was gradually increased. The patient presented to our ophthalmology OPD with complains of burning discomfort in the right eye and sensation of a moving foreign body, lacrimation, pain and photophobia. Patient was free from medical and surgical history. Blood pressure found to be normal. Ophthalmic examination revealed visual acuity 6/ 6 in both eyes. Conjunctiva was severely congested with profuse amount of lacrimation in both eyes. Pupils, extra ocular movements and confrontation fields were normal. Lacrimal sac was clinically patent and digital ocular tension was normal in both eyes. Slit-lamp examination revealed multiple translucent larvae over the conjunctiva; macroscopic evaluation noted that they were 2–3 mm in length. This larva was moving freely over the bulbar and palpebral conjunctiva the larvae were removed Larva was removed using a plain fine forceps and kept in saline using cotton swabs under local anaesthetic agents and were rinsed with sterile, normal saline. The conjunctival sac was rinsed thoroughly with diluted betadine solution. Antibiotics in form of drops were advised 3 hours once for 3 days. The review date for informed to patient relatives.

Microbiological Findings

On microscopic examination was identified as larva of Oestrus ovis (sheep nasal botfly), was presented with a pair of sharp dark blue 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 [1, 2, 7].

DISCUSSION

Ophthalmomyiasis is generally caused by *Oestrus ovis*. The most commonly, reported organism in the previous case reports was a botfly. The sheep botfly larva of *O. ovis* is a typical parasite which affects the eyes, ears, nose, and skin of sheep and goats in high rate. The patient's typical history includes being struck in the eye by a fly, followed immediately by pain, burning, lacrimation, foreign body sensation, and the development of subsequent edema. Misdiagnosis is common, with ascription of the acute conjunctivitis to other causes [1, 6]. In the previous case report's findings it is stated that opthalmomyiasis are frequently reported in rural areas of southern Pakistan, Caribbean, and Kuwait in where it was found to occur particularly among adult male shepherds and farmers from rural areas [5]. Colebrook E et al. [9] from his survey they proved *Oestrus ovis* not only causes inflammation of sclera it has a large role in breads by decreasing the appeptite, decreases the weight and milk production among cows and sheeps in middle east countries.Although it has been recognized as an important problem in our latitudes, there is a lack of information about the epidemiology of parasite development [9, 10]. First instars larvae are deposited by the adult fly, and although the larvae are usually restricted to the conjunctiva and cornea (with resultant corneal abrasions), penetration of the eye very occasionally occurs. There have also been isolated rare reports of larvae in human nasal and pharyngeal cavities causing local discomfort and frontal headache [7,4]. Interventional study reported that apart from the parasite infection, other positive factors such as smoking, alcoholism, drug over dosage are some of the rationalized factors which on prolonged usage causes inflammation of eyes. But the patient who attended was free from all these risk factors [9, 10].

CONCULSION

Antibiotic drops, as well as external application of corticosteroids ointments are suggested for the patient to prevent secondary bacterial infection and reduce inflammation around the areas of cornea. Follow-up examination is advisable to rule out complications or the existence of additional larvae. The health hazards and underlying eye problems are explained to the patients. Patients were advised for regular review and follow up, in the ophthalmic department regularly.

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