

Case Report :

A RARE CASE OF OPHTHALMOMYIASIS FOLLOWING TRAUMA

Dr. Prangya Panda, Associate Professor, Prof. Suchitra Dash, Dr. Suchitra Panigrahi, Dr. Sarita Panda, Dr. Prasant Panda, Dr. VSN. Jyoti

INTRODUCTION

Ocular myiasis is uncommon in developed countries but a few cases are still reported from under developed countries due to poor environmental sanitation, overcrowded conditions and poor personal hygiene.

Ocular myiasis in humans was first reported by Keyt in 1900.[1] The first case from India was described by Elliot in 1910.[1] Ophthalmomyiasis is seen to occur in the eyes of humans, living or working in close proximity to livestock. Children, older people, immunocompromised patients with orbital carcinomas, diabetics, and patients on immunosuppressive therapy are usually affected. However, few reports exist, which show the infestation even among non compromised hosts.[2]

We report a case of external myiasis in a non compromised host

CASE REPORT

A 50-year-old healthy female presented with a necrotic lacerated wound over her right eyelid and forehead of 5 days duration. The patient gave a history of accidental trauma by a stone to the upper eyelid 5 days back. One day after injury she had taken bath in pond water. The next day she noticed the wound margins becoming unhealthy and blackish in colour. Later she noticed some white coloured worm like structures crawling over the wound for which she presented to our hospital.

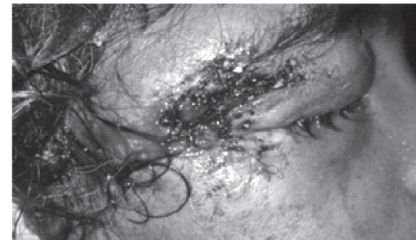
Examination revealed a lacerated wound of 3cmx2cm in size over the lateral part of the right upper eyelid extending upto the superior

and lateral orbital margin. The depth of the wound reached the orbital bone and temporal bone laterally. The margins of the wound were ill-defined, unhealthy and black in colour.

The wound was filled with necrotic tissue and numerous maggots (white coloured segmented larvae 4-5mm long)[fig1,2]. Eyelids were edematous. Conjunctiva showed conjunctival congestion and chemosis.[fig3] Cornea was clear and transparent, pupils were reactive and the posterior segment was within normal limits. Visual acuity in the right eye was 6/9.

X-ray and CT-scan of the orbit were advised and bony erosions were ruled out

The larvae were manually removed from the wound with forceps after immobilization with 4% xylocaine.[fig4] Glycerin oil was applied to the wound to remove larvae from deeper structures. Moxifloxacin eye drops and moxifloxacin eye ointment was prescribed for



local application with daily dressing. She was prescribed oral ciprofloxacin (500mg) for 7 days and diclofenac tablet for 5 days. Daily dressing and cleaning of the wound with glycerin oil and povidine iodine was advised.

On follow-up examination at 2 weeks the wound was found to be healed without any complications.

THE WOUND HEALED FOLLOWING
REMOVAL OF MAGGOTS

DISCUSSION

Ophthalmomyiasis is an uncommon clinical condition, with isolated case reports in world literature[3]. There are three families of larvae which cause ophthalmic infestations i.e. Oesttridae, Calliphoridae, Sacrophagidae. Ophthalmomyiasis is usually caused by larvae of the sheep nose botfly (*Oestrus ovis*).[4] The adult flies are not parasitic, but when they lay their eggs in open wounds and these hatch into their larval stage (also known as maggots or grubs), the larvae feed on live and/or necrotic tissue, causing myiasis to develop

Ophthalmomyiasis is classified into external and internal (orbital) according to the site of larval infestation. In external ophthalmomyiasis superficial periocular tissue gets infested and it can be sub-classified into palpebral and conjunctival myiasis. In internal ophthalmomyiasis larvae penetrates the conjunctiva and sclera and migrates into subretinal space. Orbital myiasis is marked by large number of larvae invading and destroying the tissue contents with complications ranging from minor ocular irritation to complete blindness.[2,5] Unlike internal ophthalmomyiasis external ophthalmomyiasis are not vision threatening.

Patients of ophthalmomyiasis may present with clinical signs and symptoms of irritation and inflammation to total destruction of the orbit.[6] The key step in management of less extensive ophthalmomyiasis is mechanical

removal of maggots with forceps, after suffocating them with use of various chemical substances like turpentine oil with or without chloroform which blocks the spiracles of larvae.[7] Exenteration may be needed to prevent intracranial extension of tissue destruction in case of massive orbital myiasis.

CONCLUSION

Ophthalmomyiasis is a rare form of ocular morbidity. Though unlikely in normal healthy individuals, contaminated environmental conditions can predispose to ophthalmomyiasis. External ophthalmomyiasis can be successfully treated with mechanical removal of larvae without any vision threatening complications.

References

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