Case Report

Journal of Medical Research and Clinical Reviews

Ophthalmomyiasis in a Nigerian Child: A Case Report

Omolase CO* Oyemolade AM, Atere NO, Etafo IC

Department of Ophthalmology, Federal Medical Centre, Owo, Ondo State, Nigeria.

__Correspondence:__ C.O Omolase, FWACS, FMCOph, Department of Ophthalmology, Federal Medical Centre, Owo, Ondo State, Nigeria.

Received Date: 05 February, 2025;
Accepted Date: 03 March, 2025;
Published Date: 16 March, 2025.

Citation: Omolase CO, Oyemolade AM, Atere NO, Etafo IC. Ophthalmomyiasis in a Nigerian Child: A Case Report. J Med Res Clin Rev. 2025; 1(1): 1-2.

ABSTRACT

A seven year old boy presented in the children emergency room in October 2024 with history of left eye periorbital swelling, pain and purulent discharge from the superior eyelid for four days.Ocular examination revealed preseptal cellulitis with a fistula. The larva located in the superior eyelid was removed and identified as the larva of the fly Oestrus ovis by the parasitology laboratory. The patient was placed on oral antibiotics after removal of the larva. The vision of the patient was unaffected.

Key Words: *ophthalmomyasis.*

Introduction

Myiasis is the infestation of living or dead vertebrate tissues by dipterous fly larvae [1]. It occurs worldwide with higher incidence in the tropics and subtropics of Africa and the Americas. It also has seasonal variation as the flies prefer warm, humid environment and as such occur in the summer months in the temperate regions but are seen all year-round in the tropics [2].

Ophthalmomyiasis also known as ocular myiasis refers to the infestation of the eye by fly larva [1]. It is a rare occurrence with variable involvement from superficial to the deep ocular adnexa[3]. Opthalmomyiasis externa affects the external ocular structures including the conjunctiva and cornea while ophthalmomyiasis interna is infestation of the intraocular tissue [1].

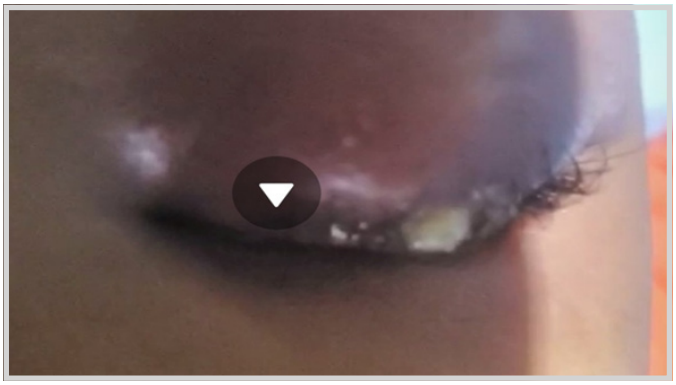
Ophthalmomyiasis occurs mostly in people with animal contacts like shepherds and farmers in rural areas but also in urban areas and in patients without close animal contact. Other risk factors for infection include eye infections and wounds, advanced age, debilitation, lack of nutrition and care, and poor general health [1].

Case History

A seven year old boy was admitted at the children emergency room of the Federal Medical Centre Owo in October 2024 with a left periorbital swelling, erythema, pain and fistula which had been present for about four days. Mother noticed the presence of an organism moving within the fistula.

The patient lived in Owo and was otherwise in good health enjoying good vision.There is positive history of having a pet dog at home but not sheep or cow. Patient self-medicated with steroid eyedrops and application of palm oil to the fistula prior to presentation.

Ocular examination revealed preseptal cellulitis and a fistula with an intermittently protruding organism. With the application of pressure, the heard of the organism protruded, was grasped with a forceps and removed intact and viable. The patient had earlier been placed on intravenous Gentamycin, Ceftriaxone and Metronidazole which were subsequently discontinued and was commenced on Suspension Amoxiclav and Oc Chloramphenicol.
The organism was subsequently taken to the parasitology laboratory and identified as the larva of Oestrus ovis, the sheep botfly, measuring



Discussion

Myasis is skin infestation by the developing larvae (maggots) of flies with the most common flies being the human botfly (Dermatobia hominis) and the tumbu fly (Cordylobia anthropophagi) [2]. Oestrus ovis, or the sheep botfly, is the most common cause of human ophthalmomyiasis [1]. However, other species have also been identified, including the human bot fly (Dermatobia Hominis) latrine fly (Fannia), house fly (Musca domestica), and cattle botfly (Hypoderma) [1].

Humans are accidental hosts with infestation occurring following inadvertent contact with eggs that are ready to hatch. Children are most frequently affected [4]. Larvae enter the host's body through mucous membranes or skin lacerations. They can also penetrate directly through the skin and develop there or migrate to another site. It then makes a hole through the skin, producing a furuncle-type lesion, through which it obtains oxygen and excretes[5]. The larvae do not survive long enough to develop into their final adult stage in humans. [1].

Grossly, the lesion appears as an erythematous papule which has a central pore that may exude serous, serosanguinous, or purulent material. The larvae may be seen protruding through the lesion occasionally in a bid to get air. The lesion is usually pruritic but may also be painful and is often misdiagnosed as a furuncle or cellulitis [4].

Most reported cases have been that of ophthalmomyiasis externa. Opthalmomyiasis interna presents with an intraocular larva or pathognomonic subretinal tracks [5].

Theoretically, no treatment is necessary but expectant management is not favourable due to the physical discomfort, pain, and psychological distress experienced by the affected individual [4]. Treatment involves removal of the larva and the inflammation is generally resolved within 1 week [5].

This is done by suffocating the larva which is an obligate aerobe, causing it to come out of its furuncle in search of air, where it can be grasped and extracted with forceps. Paraffin, mineral oil, petroleum jelly can be used for this [4].

Conclusion

External ophthalmomyiasis is a type of cutaneous larval disease which often presents as an infectious process, and in our patient, appeared as preseptal cellulitis refractory to broad-spectrum antibacterial therapy. Oestrus ovis larva was the causative agent.

Early clinical diagnosis is essential for prevention of unnecessary treatment, and it should be based primarily on patient's physical assessment and history of possible animal contact, rather than advanced imaging modalities.

Most cases resolve without complications after removal of the offending organism and do not require antibiotic therapy.

References

1. Kim LA, Tripathy K, Sandhu R, Bhagat N, Lim JI, et al. Ophthalmomyasis. Eyewiki. 2024.
2. Blechman AB, Alcock J. Myiasis. Emergency Medicine. 2019.
3. Kaitis D, Mikkilineni S, Brill D, Fields T, Baciu P. Orbital larva masquerading as preseptal cellulitis. Department of Ophthalmology, Henry Ford Health System. 2019; 53.
4. Taormina YA, Gannon C, Nguyen J, Rhodes J, Foxworth M, et al. Cuterebral ophthalmomyiasis externa presenting as preseptal cellulitis. Eplasty. 2013; 13: ic40.
5. Nicholas EE, Patrick YR, Frank S. Palpebral myiasis causing preseptal cellulitis. JAMA Ophthalmol. 1998; 116: 684.