Diomandé IA, et al., J Ophthalmic Clin Res 2019, 6: 048
DOI: 10.24966/OCR-8887/100048

HSOA Journal of Ophthalmology and Clinical Research

Case Report

Edema Palpebral Revealing in a *Dermatobia hominis* Infection: A Case Report

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Abstract

Myiasis due to *Dermatobia homisis* is a dermatological affection that infects both animals and humans. Its location is variable but preferentially, it touches the discovered areas. It is a disease that is preferentially rampant in developing countries. Our work reports a case identified in a city of West Africa (Bouake in Cote d'ivoire). This clinical presentation reflects the comorbidities factors that sometimes favor the evolution of pathologies towards complications.

Keywords: *Dermatobia hominis*; Edema palpebral; Extraction; Fly; Guyana

Introduction

Dermatobia hominis or "worm macaque" called by the Anglo-Saxon, "human botfly" is a Fly larva, belonging to the family of "oestridae" [1]. Although it mainly parasitises the skin of apes, it can also affect that of human beings. It is mainly found in South America [1,2]. We report the case of a patient who was presenting eyelid edema with a sting after a stay in an endemic area.

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Citation: Diomandé IA, Diomandé GF, Dossa JB, Bilé PEFK, Diabaté Z, et al. (2019) Edema Palpebral Revealing in a *Dermatobia hominis* Infection: A Case Report. J Ophthalmic Clin Res 6: 048.

Received: June 14, 2018; **Accepted:** January 04, 2019; **Published:** January 18, 2019

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Case Report

This is a 59 years old male patient with no ophthalmology history or particular general who during his vacationing in a forest in French Guiana was bitten by an insect at the upper right eyelid. There followed an oculo-palpebral pruritus with photophobia, tearing and the progressive installation of a palpebral edema. The patient had received local treatments with antibiotics and anti-inflammatory non-steroidal eye drops and ointment. This treatment would have amended the clinical symptomatology for about a week. Back in Cote d'Ivoire a week later, he would have noted the occurrence of intermittent intra-palpebral grazes always at the area of bite with rapid installation of blepharitis signs associated with the initial symptoms after the bite. This clinical picture has therefore motivated an emergency consultation in the ophthalmic department of the University Hospital of Bouake.

On clinical examination the patient had visual acuity from a long distance without correction of 10/10 in both eyes and read Parinaud 6 in near vision. Just as ocular motility and convergence were normal. Slit lamp examination noted a diffuse conjunctival hyperemia in the Right Eye (RE) associated with red eyelid edema located at the free edge of the upper eyelid. This examination made it possible to objectify blepharitis with intense inflammation of the free edge of the upper eyelid. Before the extraction of the macaque worm (Figure 1).

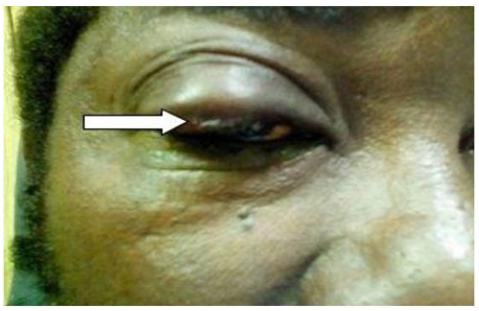

Figure 1: Eye showing signs of conjunctival hyperemia associated with red eyelid edema and the worm's head in a circular hole before the extraction at the free edge of the upper eyelid.

At this level there was an orifice allowing intermittently perceiving the head of the larva, which at each retraction allowed a non-purulent yellow exudates. The anterior and posterior segments were without particularity. Examination of the controlateral eye was normal. Furthermore, no satellite lymphadenopathy was noted at loco regional examination.

The general state of the patient as well as the vegetative constants was without particularity. We proceeded to extract the pathogen through the orifice mechanically by digital pressure of the palpebral rim.

The pathogen extracted had the appearance of a voluminous "maggot" of greyish coloring and had left an orifice (Figures 2&3).

Figure 2: Macaque worm extracte.

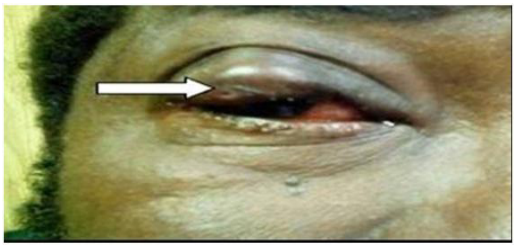

Figure 3: Eyelid showing an orifice left by the macaque worm after its extraction.

Parasitological examination permitted to confirm that it was *Dermatobia hominis* or "macaque worm". Treatment after the parasite extraction included antibiotic ointment, oral anti-inflammatory and anti-tetanus vaccine. The evolution was simple at the 3rd day with a disappearance of symptoms and the scarring of the orifice left by the macaque worm.

Discussion

Dermatosis is one of the four causes of morbidity among travelers returning from the tropics [3]. The incidence of this pathology is growing in subjects traveling throughout Latin America [4]. Myiases are secondary subcutaneous disorders to the infestation of cutaneous tissues of mammals. Human being is accidentally infected by fly larvae or "Asters" when in contact with the vector agent. Among the myiasis, we distinguish Myiasis from folds, wounds, and subcutaneous ones [5]. Subcutaneous myiasis, also called furunculosis", is due to the larvae of *Dermatobia hominis* (Macaque worm) in South America and to the larvae of *Cordylobia anthropophagi* in Africa [1].

The localization of myiasis is general ubiquitous but preferentially it touches the discovered zones (the thigh, the breast, the back, or the face) [6,7].

As observed in our patient the facial location is Palpebral. Thus any persistent Palpebral edema should be the subject of a careful ophthalmological examination because it can sometimes mask an ophthalmological or severe general pathology. The poorness of paraclinical investigations confirming the diagnosis of Palpebral affections requires a rigorous interrogation in search of anamnestic arguments and a detailed clinical examination in order to make an accurate diagnosis [7].

In our patient we found a notion of eyelid bite during a stay in the Guyanese forest thus reflecting a contact with the vector agent. This fact would confirm the epidemiological argument in favor of a *Dermatobia hominis* Palpebral infection.

This argument is in accordance with the literature, for various authors have confirmed the high frequency of this furuncular in South America [1,4]. The oculo-adnexal involvement of the myiasis has also been described by several authors, also Suzzoni and col. found a case of ophthalmomiasis in the area of Toulouse (France) [8] the same report made by Dorchies and col. in Djibouti [9].

The myiases observed around the world are most often cases exported from South America, because according to Clyti and col. a case out of 190 tourists would be infected during their stay in South America [1,10].

The treatment of *Dermatobia hominis* myiasis is essentially based on the mechanical extraction of larvae. The risk of aesthetic damage exists, especially in women. However a treatment based on the deprivation of the larva in oxygen by application of Vaseline on the orifice of the lesion could prevent this damage. Also the mechanical extraction of larvae can be facilitated by intralesional injection of lidocaine and the prior application of a 1% ivermectin solution [11,12].

Conclusion

In front of a patient with persistent non-regressive Palpebral edema under appropriate treatment, it would be necessary first of all to seek during the interrogation a notion of staying in an endemic zone where the mosquito vector is active and to mention a *Dermatobia hominis* infection. The treatment is preventive and curative. The preventive component consists in protecting the skin from mosquito bites (use of skin repellents, repellents on clothing, use of insecticide- treated mosquito nets or impregnated mosquito nets and long clothing, helmets). As a curative treatment it consists of Mechanical extraction of larvae.

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