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Housefly Maggots in the Oral Cavity- A Rare Case Report

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ABSTRACT

Myiasis is a term first introduced by hope in 1840 and its derived from the Greek word "Myia" which means invasion of the vital tissue of the humans or other mammals and livestock by fly larvae. This phenomenon is well documented in the skin, especially among animals and people in poorly developed and developing countries. When the tissues of oral cavity are invaded by the parasitic larvae of flies, the condition is called as oral myiasis. It is a rare condition caused by several species of dipteran fly larvae and may be secondary to serious medical and dental conditions. We hereby report a rare case of oral myiasis involving the lower lip and palate in a 40 years old female non diabetic patient with low socioeconomic status since 10-15 days. Its treatment consists of manual removal of the larvae, one by one using turpentine oil, followed by surgical debridement and broad spectrum antibiotics.

Key words: Myiasis

INTRODUCTION

Despite the advances in the science and the exceptional knowledge of mankind in the contribution to development in technology yet the counterattack of nature to mankind in the form of diseases in the most unpredictable manner is an everlasting challenge. Human race has been attacked by pathetic infestations since time immortal. Parasitic infestations occurring through common flies are a rare entity of orodental complex and noteworthy to mention is one of the most daunting infestations myiasis.

Tissues of the oral cavity are invaded by parasitic larvae of house flies are called as oral Myiasis[1]. The term Myiasis was coined by **HOPE** in 1840[2] and it is derived from Greek word **MYIA** meaning fly. It was first described by **LAURANCE** in 1909[3]. It was defined by **ZUMPT**as the infestation of live human and vertebrate animals with dipterous larvae, which feed on living or dead host tissue, liquid body substance or ingested food for certain period of time.[1,4,5]Almost 86 different species of flies have been reported to cause human myiasis. It is rarely found in healthy persons[6].

The Myiasis can be obligatory, when larval flies develop in living tissue or facultature when feed on decomposing matter or necrotic tissues[7]. The predisposing factors for myiasis mainly in elderly patients include Diabetes and peripheral vascular diseases in whome sites that are mainly attacked are feet & ankles. This condition could be completely benign and asymptomatic, which would result in mild to acute pain, or in extreme cases cause death of the patient[8]. Clinically myiasis can be classified into primary and secondary. Primary myiasis is a rare condition found in human and is caused by larvae which feed on living tissue whereas secondary myiasis is caused by necrobiophagous flies which feed on necrotic tissue.

CASE REPORT

A female patient aged 40 years with low socioeconomic status, reported to the department of oral and maxillofacial surgery with a chief complaint of swollen lip and pain associated with lip and hard palate. Patient's past dental history revealed that the patient was completely asymptomatic 10-15 days back after which he experienced pain in the lower lip region along with swelling because of an epileptic attack as she had fallen down from the roof 10-15 days back from the

day of examination. She also went unconscious for 20 minutes, after which she recovered. Now, she complains of swollen lip since 5 days. On extra oral examination, it was found that there was reduced mouth opening and the lower lip and palate were swollen and ulcerated and on intra oral examination larvae were visible in the sloughed region on the lower lip accompanied with calculus and halitosis due to poor oral hygiene. On palpation it felt soft in consistency. On clinical examination maggots were moving out. Based on the patient's history, clinical examination the provisional diagnosis was found to be oral myiasis. The treatment protocol which we followed was under local anesthesia, wound was cleaned with the help of betadine and saline to remove the necrotic tissue followed by application of the turpentine oil and hydrogen peroxide and mechanical removal of larvae with the help of forceps 4 maggots were isolated. Turpentoine oil was used because it forms a layer over the tissues and causes asphyxia and suffocation that irritate the larvae to come out from the wound. Then Ivermectin 6mgwith Albendazole as larvicidal agent, Analgesic & Antibiotics to prevent pain and secondary infection. Patient was asked to maintain proper oral hygiene and oral prophylaxis was done. An entomological examination of the removed maggots revealed that the larvae of the house fly.

Fig 1: Pre-op pic showing the maggots in the lower lip

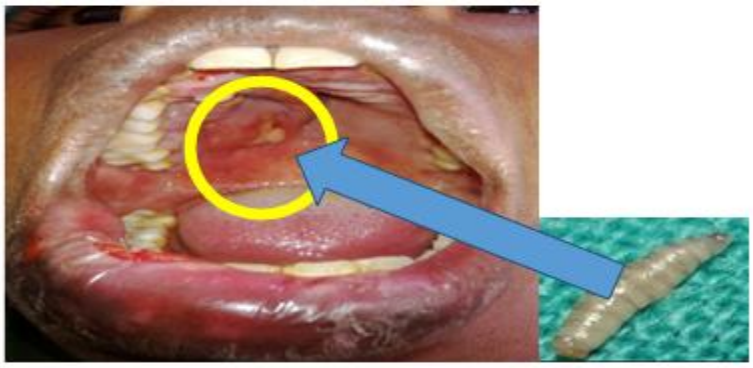

Fig 2: Pre-op pic showing the maggots in the palate

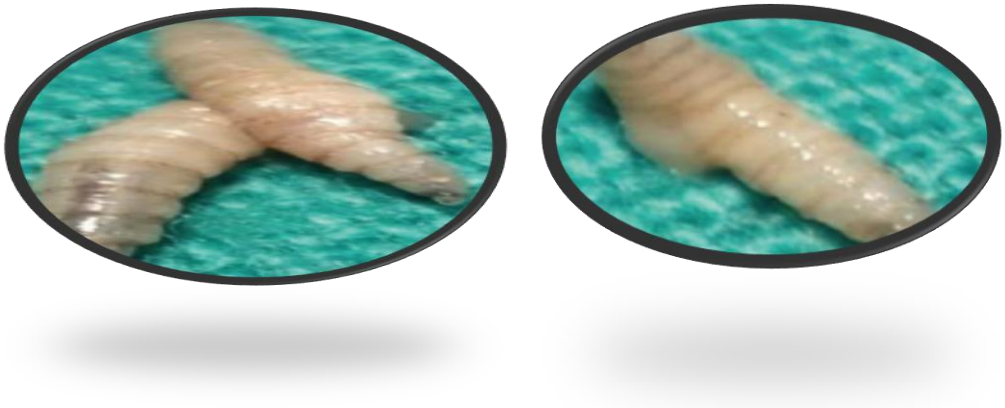

Fig 3: Showing the extracted larvae from the patient's mouth

DISCUSSION

Musca Nebulo is the most common housefly in India. They are most active during summer and rainy seasons[9]. Open wound and open sores provide a favourable environment for their growth[10]. Myiasis is an uncommon disease in humans and take many forms including infection of skin, gut, nasal cavities and eyes[11] occasionally the oral cavity. It occurs most commonly in rural than urban areas[5]. Predisposing factors were secondary to medical conditions like diabetes mellitus, psychiatric illness, leprosy, mental retardation with open neglected wounds and also in patients with mouth breathing habit. Other risk factors may be poor oral hygiene, facial trauma and suppurative lesions[12]. It has also been described after teeth extraction. In the present case, patient was residing in rural area with low socioeconomic back ground, having poor oral hygiene status with mouth breathing habit, but not a diabetic. The simplest option for treating myiasis is the mechanical removal of larvae with tweezers, usually under local anesthesia. When tissue destruction is present surgical exploration should be carried out complemented by treatingthe defect with ether or turpentine oil capable of irritating the parasites and forcing them out of hiding[2] but the use of systemic Ivermectin can give favourable results in most of the cases[13]. It is a semi synthetic agent of themacrolides family that is derived from a group of natural substances- Ivermectin- which is obtained from actinomycetes. It is given orally in just one dose of 150-200mg/kg body weight. However in the present case mechanical removal of larvae along with surgical exploration to remove both necrotic tissue and bone was considered appropriate for the patients.

CONCLUSION

Prevention is better than cure is apt with respect to oral myiasis. Prevention involves fundamentally control of fly populations, general cleanliness which incorporate decrease in decomposition odors. Myiasis of the oro and maxillofacial region can be presented by patients education in rural areas with low socio economic status and patients lacking information about personal oral hygiene should be given information regarding the same and taking care of any wound, antrol on fly production and maintenance of proper sanitation and surroundings and taking extra care of people with mental, physical and learning disability.

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