

Oral Myiasis In Tongue & Gingiva

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Abstract

Oral Myiasis is a rare pathology in humans and is associated with poor oral hygiene, alcoholism, senility, halitosis and other conditions. A case of oral myiasis in a 59 year old female patient with psychological stress and low socioeconomic status suffering with ulceration in the right maxillary gingiva and tongue. It is a condition in which the soft tissues are invaded by the larvae of the flies. It occurs as a result of female flies depositing eggs or larvae on open wounds or larvae being accidentally ingested through contaminated food. The larvae hatch in the tissues and later migrate out of the tissues.

Keywords: Myiasis, worms in gingivae, deep ulcer in tongue.

Introduction

Myiasis refers to invasion of living tissues by the larvae of certain species of flies. Myiasis is caused by the larvae of flies (order-diptera) which belong to three families namely- Calliphoridae, Ostridae and Sarcophagidae. It is a condition in which the soft tissues are invaded by the larvae of the flies, mostly occurs as a result of female flies depositing eggs or larvae directly on open wounds or larvae being accidentally ingested through contaminated food. The first case of oral Myiasis was reported by Shira in 1943 and the term Myiasis was first introduced by F.W Hope and is derived from greek word 'myia' meaning fly¹. Zumpt (1965) defined Myiasis as the infestation of live human and vertebrate animals with dipterous larvae, which at least, for a certain period feed on the hosts (dead or living tissue) or on the ingested food^{2,3}. Myiasis is well recognised in the animals but rare in humans, in whom it occurs mainly in the tropics and subtropics. Oral Myiasis in human is usually reported among the poor in the developing world. Mouth breathing during sleep, alcoholism, mental handicap,

cerebral palsy and hemiplegia may facilitate the development of myiasis^{4,5}. Other contributing factors include poor oral hygiene & low body resistance. The aim of this paper is to report an extensive case of myiasis in gingiva and tongue.

Case Report

A female patient, 59 yrs of age with psychological stress [demise of father] and low socioeconomic status, reported to the clinic, with the chief complaint of ulcerative wounds in the right maxillary gingiva and on the dorsum of the tongue. She had severe continuous pain in the gingiva and tongue. Since last three days, the wounds had started in increasing in size and she complained of creeping sensation in the involved area. The worms started wriggling out. On intra-oral examination, an ulcer was seen in the right maxillary canine region, the redness and puffiness was extended from canine to first molar region. The corresponding palatal region also depicted swelling and blanching. On probing in the mesial aspect of canine, maggots started creeping out. The alveolar gingival in incisive papillae region was also whitish and friable, apparently due to striking mandibular incisors, being in deep bite. On close examination, maggots larvae were seen in the ulcer on the tongue. The ulcer on the tongue was oval deep with 3-6 mm in dimension, the oral hygiene status was very poor. A thick bridge of calculus was present with Glickmans grade IV furcation involvement in relation to 16. The patient was very thin in built, febrile and restless. She was advised for blood investigations (T.L.C., D.L.C., Hb%, B.T., C.T., & Random Blood Sugar Estimation) and I.O.P.A X-Ray was done in relation to 13-16. The patient was treated by flushing the ulcers with turpentine oil. The ulcers were gently curetted and irrigated with the mixture of hydrogen peroxide and betadine. Antibiotics were prescribed along with a

serratio peptidase and analgesic.

Discussion

In the present case, it was presumed that the eggs were deposited in the periodontal pocket and on the tongue directly by the flies. As the patient was of low socioeconomic status, poor personal hygiene and ineffective fly control were contributing factors to it. The stagnated, warm humid climate of the mouth was also favourable for the larvae. The larvae are called screw worms on account of their morphological characteristics. In the diseased and dead tissues, the larvae hatch in eight to ten hours and burrow deep & they obtain the nourishment from the surrounding tissues. It appears that with the maturation of larvae, tissue inflammation occurs^{6,7}. Psychological stress may also be a risk factor⁸. The patient was treated by flushing the ulcers with turpentine oil. The maggots were picked up with the help of tweezers. On the first day, about 10 maggots were removed from the gingiva and the tongue. Maggots were preserved in formalin solution for examination and identification purpose. Maxillary right canine and the 1st premolar were extracted under Local anaesthesia. Lingual nerve block was given on the left side and tongue ulcer was gently curetted and irrigated with a mixture of hydrogen peroxide and betadine [povidine iodine solution]. Antibiotic amoxicillin and cloxacillin was given along with a serration-peptidase and analgesic. On the second day, the clinical picture was less painful and less oedematous. After irrigation of the sites, the patient was discharged for 2 days. On the 4th day, still the patient complained of some creeping sensation and 2 maggots were removed from the tongue ulcer. On the sixth day, the worms were neither reported nor could be traced. The maxillary right side of the effected gingiva resumed its normal colour and appeared less oedematous. On

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the 10th day, the patient reported with restoration of the normal taste sensation in the tongue ,normal texture and colour of gingiva. The healing was uneventful. The patient was instructed to maintain oral hygiene by continuous use of mouthwash and tooth brushing.

Conclusion

The prevention of human Myiasis is by education and creating awareness for maintaining personal hygiene but unfortunately in the developing countries some people live in low socio economic conditions ,predisposing the occurrence of the infestation .Psychological status do play a role in deciding the oral hygiene practice patterns.

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Legends

- Fig. 1 Patient on initial visit.
- Fig. 2 Ulceration on tongue.
- Fig. 3 Larvae coming out of gingiva & generalized poor oral hygiene.
- Fig. 4 Larvae collected in surgical tray.
- Fig. 5 Glycerine & turpentine oil.
- Fig. 6 Cynosed left side of tongue after curettage of ulcer.
- Fig. 7 Maxillary incisor alveolar mucosa blanched due to deep bite.
- Fig. 8 Healing phase of ulcer on the tongue.
- Fig. 9 Healed gingiva- colour of alveolar mucosa regained.
- Fig.10 Healed ulcer on the tongue.

