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Oral myiasis in mentally challenged patient:a case report

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Abstract

Myiasis is the infestation of live human and vertebrate animal with Dipterous larvae which feed on host's dead or living tissue. This condition is a result of neglected approach towards oral hygiene along with mental and physical challenges of patient.

A case of oral myiasis in the maxillary anterior region in an 18 years old female with neurologic defi-cit caused by the larvae (maggots) is reported.

The management consists of manual removal of larvae by topical application of turpentine oil, oral therapy with Ivermectin and surgical debridement of oral wound.

Key words: *Myiasis, dipterous, ivermectin.*

Introduction

Term “Myiasis” is derived from Greek word “Myia” meaning fly which was first introduced by Hope (1).

Oral myiasis is the condition in which there is an invasion of oral tissues or wound with larvae of houseflies commonly known as maggots (2). It occurs as a result of female flies depositing eggs or larvae on open wounds or decaying tissues.

The larvae hatch in the tissues and later migrate out in an attempt to reach the soil to pupate.

Myiasis can be classified as obligatory (when larvae develop in living tissue), facultative (when maggots feed on necrotic tissues) (3).

The most common anatomic sites for myiasis are nose, eye, lung, ear, anus, vagina and more rarely mouth (4). This is common in low socio-economic status people with neglected oral hygiene and physical or mental retardation.

Case Report

An 18 years old girl with neurological deficit and of low socioeconomic status referred to the Department of Oral and Maxillofacial Surgery, Institute of Dental Sciences, Bareilly with chief complaint of swelling and pain in upper front region of mouth.

Extraoral examination revealed acute and diffused upper lip swelling which was non fluctuant on palpation (Fig. 1).



Fig. 1. Mentally retarded patient showing indurated swelling of the upper lip

Intraoral examination revealed an ulcerative wound over the anterior hard palate and swelling of maxillary anterior region. General symptoms included pain, fever and malaise.

The patient was thin built, malnourished and restless.

On local examination an ulcer was seen involving anterior hard palate along with sloughing. The surrounding area was erythematous and swollen. A diffused swelling was seen in the middle third of the face. Intraorally in mucolabial fold several orifices containing live maggots

were revealed.

Radiographic examination revealed mild horizontal bone loss in the maxillary anterior region suggestive of chronic periodontitis. Routine blood investigation showed low haemoglobin and high eosino-phil count.

The wound was debrided under local anaesthesia cautiously with application of turpentine oil and maggots were removed mechanically with the help of tweezers followed by thorough irrigation with normal saline and butadiene (Fig. 2 and 3). The prophylactic antibiotics



Fig. 2. Larva being removed from the socket



Fig. 3. A number of larvae removed from mucolabial fold

and analgesics were pre-scribed for 5 days along with ivermectin 6 mg for 3 days. The patient was recalled everyday for re-peated irrigation for next 10 days.

The wound was left open to heal by secondary intention.

Discussion

Oral myiasis is a rare condition and can be caused by several species of Dipteran fly larvae and may present secondary to serious medical conditions. This condition is associated with poor oral hygiene, alcoholism, senility, suppurative lesions, severe halitosis and other conditions (5).

The myiasis is diagnosed clinically based on the presence of maggots of *Musca nebulo* which is the commonest Indian housefly.

The risk factors for oral myiasis are poor oral hygiene, physical and mentally challenged patients who were unable to protect themselves from invasion and growth of larvae in oral cavity.

The common housefly usually deposits the egg or larvae in the gingival sulcus, mucous or raw tissue surface which gets stagnated under unprotected warm, humid climate of the wound and burrows deep into the tissues. Larvae are grayish white with transverse rows. The hatching is usually completed in less than a week time.

The increase in size and crawling movement may give rise to itching and discomfort.

The treatment is the mechanical removal of maggots one by one but a systemic treatment with ivermectin, a semisynthetic macrolide antibiotic (6).

The prevention of human myiasis can be done by proper health awareness and education but unfortunately in developing countries some people live in low socioeconomic conditions predisposing the occurrence of infestation.

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