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## RESEARCH ARTICLE

### Is Oro-antral Myiasis life threatening? : A Case Report.

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#### **Abstract**

Infestation of living tissues of humans and animals, by dipterous eggs or larvae is very rare entity and is termed as myiasis. In the present case, patient aged 50 years, reported to us with a complaint of a large communication in anterior maxilla and left posterior mandible region. Intra oral examination showed generalized periodontitis and myiasis with purulent discharge at the same sites. Despite treatment patient died due to severe septicemia. The case is significant in its presentation as Oroantral myiasis could be life threatening if neglected at its earlier stage.

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#### **Introduction:-**

The word "Myia" means fly in Greek. The infestation of any part of the body with flies, larvae or maggots can be called as myiasis. The term Myiasis was first proposed by Hope (1840).<sup>1</sup> Different parts like skin, gut, bladder, nasal cavities, ear, eyes and oral cavity can be involved.<sup>2</sup> Even though myiasis is a very common disease in veterinary medicine, it seems to be not so common in medical literature. But due to the poor socio – economic status or medically compromised conditions, its occurrence is not very uncommon.<sup>3</sup> Human myiasis is more common in regions with a warm and humid climate. The larvae of flies may be ingested through contaminated food or by the deposition of egg by female flies on open wounds or decaying tissues.<sup>4</sup> The larvae hatch in the tissues and then come out of the tissue attempting to reach the soil for pupating. The larvae involved in myiasis are insatiable; they destroy healthy tissues and may cause serious haemorrhage. The condition can be life threatening. The most common anatomic sites for myiasis are the nose, eye, lung, ear, anus, vagina and more rarely, the oral cavity.<sup>5</sup> Oroantral myiasis if left untreated could be life threatening. The aim of this article is to report a case of myiasis in anterior maxilla and left posterior mandible region where in despite tremendous efforts and treatment patient did not survive.

#### **Case report:-**

A 50 year old female patient reported to our unit with chief complaint of a large communication in anterior maxilla and left posterior mandible region. On reporting, she appeared terminally ill, was restless with severe malnutrition. Patient had weak pulse, low blood pressure and tachycardia. She was conscious but not oriented to surroundings. Patient had jetting pre maxilla with severe proclination of anterior maxillary teeth which had resulted

in an open bite situation and incompetent lips. General physical examination suggested severely compromised status. Intra oral examination showed generalized periodontitis and myiasis with purulent discharge (Figure I). Patient gave history of trauma by a broom which resulted in a soft tissue wound over anterior maxilla which resulted in a naso – oral communication and ulceration at left posterior mandible. Patient also reported that she had been sleeping in unhygienic conditions in a poultry farm. Poor oral hygiene along with open bite and trauma resulted in deposition of fly eggs in naso -oral communication and ulcerated region in left posterior mandible. Ulceration of mouth, improper fly control of premises, wet wound and open bite created a conducive environment for egg deposition by flies. Detailed extra oral examination of middle third of the face revealed generalized facial swelling. On intra oral examination many maggots were found creeping in relation to 1) Detached mucosa of anterior upper buccal mucosa 2) Detached mucosa of the floor of the mouth 3) Mucobuccal folds in relation to lower anterior teeth, Upper posterior teeth.

### **Treatment:-**

Oral wounds were flushed with diluted Hydrogen Peroxide, Povidone – Iodine mouth gargles and normal saline. Even though treatment of choice is Turpentine oil irrigating, due to the chances of aspiration it was not carried out. The first day, 300 maggots were picked up by tweezers. On the second day, about 100 maggots were removed. On the third day, only 20 maggots were removed. However patient died on the fourth day due to severe septicemia despite supportive treatment and the administration of broad-spectrum antibiotics, which included piperacillin-tazobactam, levofloxacin, and meropenem.

**Figure I:-**Preoperative Intra Oral View.



### **Discussion:-**

Oral myiasis, a rarely found condition can be life threatening if not detected at its earlier stages. Live maggots in the orofacial region of human being can act as a distressing condition. Many clinicians in dental profession might not be aware of the existence of this entity. This condition is most likely to be seen in individuals who are immunocompromised, incapacitated, mentally challenged and physically unfit to attend their personal needs due to lack of psychomotor coordination.<sup>6</sup>

Some common risk factors for oral myiasis include suppurative lesions, trauma in the face, mouth-breathers and extraction wound. To understand the etiopathogenesis of myiasis it is necessary to understand its basic types, Semi specific myiasis: Flies lay eggs on necrotic tissue in wounds. Obligatory myiasis: some species that require living tissue to lay eggs. Accidental myiasis: Flies lay eggs on food stuffs which cause infection when ingested.<sup>7</sup>The life

cycle starts with adult fertile female flies which are attracted by a wound's odour and feed on exudates, lay eggs in the injured and necrotic tissues. The first instar larvae hatch after 12-24hrs and enter the living tissues which feed for 5-7 days and moult twice. The third instar (last stage) stops to eat and leaves the host which pupates on the ground. Adult fly emerges after 1-2 weeks.<sup>8</sup> In the present case, the poor socioeconomic conditions, trauma and malnutrition are causes of oral myiasis. Occurrence of these cases are common in developing countries as compared to developed countries as there is lack of special care for vulnerable group of patients in certain geographic areas.<sup>3</sup> Usual treatment of oral myiasis involves surgical removal of maggots followed by irrigation.<sup>9</sup> Pharmacological therapies are effective alternatives. In the case presented here, the same standard protocol of surgical removal of maggots, flushing of oral wounds with diluted Hydrogen Peroxide, Povidone – Iodine mouth gargles, normal saline along with supportive therapy were followed. Despite of which patient died of septicemia. Due to the patients severely immunocompromised status progressive septicemia could not be managed.

### **Conclusion:-**

Oroantralmyiasis though a very rare disease, the diagnosis is made by direct observation of larvae in most of the cases. If diagnosed early the complications can be prevented. The condition sometimes can be really challenging to manage due to progressive septicemia and hence establishing a protocol for management of this condition is a prime necessity.

**Conflict of Interest:-**none declared.

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