



ORIGINAL RESEARCH PAPER

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MYIASIS: TRIVIA TO THE PATIENT, STIGMA TO THE MANKIND- A PROSPECTIVE ANALYTICAL STUDY.

KEY WORDS: Myiasis, orbital myiasis, stigma, trivia.

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ABSTRACT

Myiasis is a quite debilitating condition seen in humans and other vertebrates. It is a social stigma to the mankind and a physical, social and psychological trauma to the patient. Myiasis is mostly seen in neglected wounds or in long standing infections, more common in elderly patients and children. This study was conducted in tertiary care centre in a medical college in central India in a time span of 4 years. The study was conducted on 38 patients with 26(68.42%) females and 12(31.58%) males. Most common age group to be involved was above 60 years in nasal, tracheal and other forms of Myiasis and 10-15 years for aural Myiasis. There were 22(57%) cases of Nasal Myiasis, 11(28.9%) of aural Myiasis, 2(5.2%) cases of tracheal Myiasis, 2(5.2%) cases were of Myiasis in the neck secondaries, 1(2.6%) of orbital Myiasis. In our study the most common presenting symptom was crawling sensation and sign was blood mix discharge followed by itching and pain. After the confirmation of the site and extent of the invasion all the patients were proceeded for manual removal of the maggots after instilling the turpentine oil + chloroform over the affected area. If the patient reaches hospital in time, the treatment has great success rate and serious complications can be prevented. The only way to reduce the incidences of Myiasis is the awareness among the general population and the sensitization of the patients and the relatives as well.

INTRODUCTION

"In this era..HUMAN MYIASIS"??.... Still, we are having this problem... in the countries like INDIA, we are still struggling with this condition.....Since a long time, Myiasis is a quite debilitating condition seen in humans and other vertebrates. It is a social stigma to the mankind and physical, social and psychological trauma to the patient. It was believed to be curse of god in ancient time. Myiasis is present since the animals and humans came into existence. Earlier it was known as **SCHOLECHASIS** or **PEENASH**. "MYIASIS" term was coined by **F.W Hope** in 1840. In 1897 **Stacple** proposed the presence of fly in nasal space causing nasal Myiasis. **Castelloni and Chalmers** described the conditions of the nasal Myiasis known as **Peenash** in India due to **Chrysomia** (**Pychnosoma**). In 1926 **Bishop et al.** classified the maggots as tissue destroying subdermal infesting, urogenital/gastrointestinal tracts, ear nose and throat and blood sucking types.

Sahay et al.(1958) classified them in **specific-obligate** parasite, **semi-specific**-species adaptable to environment and PH, and accidental-invasion of facultative parasites. It has been defined as an infestation in human and vertebrate animals by the larva of the insects which feeds for certain time on living or dead tissue from the host or on fluid substance(1). Although many forms of Myiasis are known like nasal, aural oral, tracheal, genital or myiasis of tumors(like breast carcinoma, lip carcinoma, buccal carcinoma and secondary neck). Condition is mostly seen in neglected wounds or in long standing infections. It is quite uncommon in ENT OPD. Myiasis is commonly seen in elderly patients and children. Myiasis is classified into two types, **Furuncular Myiasis** and **secondary Myiasis**.

The Myiasis cases had been reported time to time in ENT Out Patient Department in the form of nasal, aural, and tracheal Myiasis(Fig 1), or very rarely with orbital involvement(Fig 2). Nasal Myiasis is quite uncommon condition although(2). Nasal Myiasis is caused by a dipterous fly **chrysomia** **Bazziana**, most commonly the adult of this fly is free living

while their larvae are parasitic(3). Many species of dipterous fly among the genera **chrysomia** and **cochiliomia** have been reported to be the most important obligate myiasis producers among human and domestic animals(4,5). Myiasis of the various parts of the body is reported all over India; even MYIASIS of periurethral region caused by **Chrysomia** **Bazziana** in a case of **Carcinoma cervix** grade 3 was reported.(6)

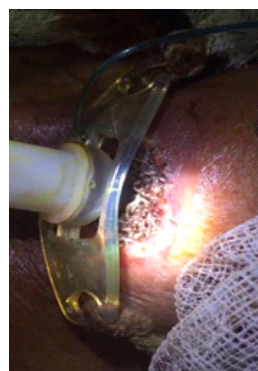


Fig 1- Tracheal myiasis



Fig 2- Orbital myiasis

MATERIAL AND METHODS:

This study was conducted in tertiary care centre in a medical college in central India in a time span of 4 years. The study was conducted on 38 patients. All the patients with clearly visible maggots in Head and Neck region with Ear Nose Throat and eye along with other body parts and a confirmed diagnosis were included in the study. All the patients of myiasis attending ENT OPD were selected and routinely investigated(CBC, ESR, KFT, LFT, ECG and other special investigations like MRI(if required)).

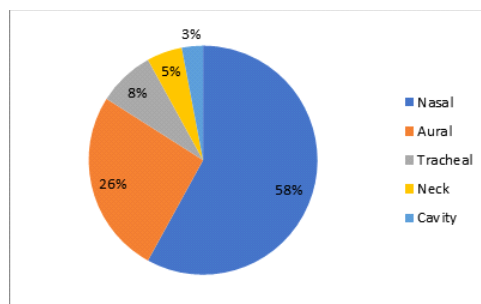
After the confirmation of the site and extent of the invasion all the patients were proceeded for manual removal of the maggots after instilling the turpentine oil+chloroform over the affected area. After careful picking of the each maggot the whole area was painted with **soframycin** cream. A broad

spectrum antibiotic for the coverage of aerobes and anaerobes both along with Ivermectin, Tranexamic acid, analgesics and proton pump inhibitors were started to prevent further infection and inflammation. The patients with moderate destruction had shown significant improvement. To prevent the infestation in other patients the patients with Myiasis were kept in mosquito nets in isolation.

OBSERVATIONS

In our study of 38 cases according to the sex distribution there were 26 females(68.42%) and 12 males(31.58%). Most common age group was found to be involved were above 60 years in nasal, tracheal and other forms of Myiasis. It was 10-15 years for aural Myiasis.

According to the site distribution there were 22(57%) cases of Nasal Myiasis, 11(28.9%) of aural Myiasis, 2(5.2%) cases of tracheal Myiasis, 2(5.2%) cases were of Myiasis in the neck secondaries(over ulcerated secondaries of Ca larynx and Ca buccal mucosa), 1(2.6%) of orbital Myiasis. (Graph 1)



Graph 1 - Site distribution in Myiasis

In our study we observed that Atrophic rhinitis was the second most common condition after the chronic rhinosinusitis, as far as the associated etiological factors were concerned.

The low socio-economic strata was most commonly associated with this condition, people who were poor, dependent, old age and chronically ill were the victims of this condition. In our study the most common presenting symptom was crawling sensation and sign was blood mix discharge followed by itching and pain.

DISCUSSION

Myiasis is a quite debilitating and frustrating condition for the patient. It is a psychosocial trauma and a stigma to the patient's family and the society as well. Myiasis is usually initiated by the flies attracted by wound and lays their eggs in necrotic, haemorrhagic, and pus-filled cavities or lesions(7). It is generally associated with traumatic injury, erosive oromucosal lesions or haemorrhages. All conditions compromising bodily integrity predisposes to infestation(8). Despite the fact that Myiasis is very common in tropical areas it has also been reported all around the world.

Orbital myiasis although very rare condition but whenever seen or reported was seen with excessive destruction(9). In our study we have reported a case of orbital myiasis with almost destructed and eaten up eyeball in a neglected and old patient from rural background atleast enucleation was done after treating the myiasis.

Nasal Myiasis is an uncommon condition in ENT also, early treatment and removal of the maggots is the key, but when neglected can lead to more dangerous complications, like maggots can eat up all the turbinates, can enter into the ethmoid and maxillary sinuses, can enter into the orbit and destroy the eye, they can reach to sigmoid sinus and can cause sigmoid/lateral sinus thrombophlebitis, they can breach the cribriform plate and enter into the brain which can be lethal to the patient. Aural Myiasis can also be a dangerous condition if neglected. In our study we have observed that females had

nasal Myiasis in most of the cases with predisposing nasal pathology. The dipterous fly **Chrysomia Bazziana** is the most common vector of Myiasis. Pathogenicity of the Chrysomia Bazziana larva was due to the toxins secreted by the larva which prevent healing of the affected tissue. (9)

We have noticed that the infestation of the maggots was traumatic to the patients as they are socially neglected and isolated hence, they were found psychologically disturbed and depressed. The best way we found to treat them was removal of the maggots, medical management along with sympathy and social acceptance. The behaviour adapted by the family members of the patient can save or kill the patient. Attention should be paid to the underlying causes, wound care(if any), improving nutrition, correcting anaemia, and taking care of local hygiene.

In our study the most common underlying cause was chronic rhinosinusitis, followed by atrophic rhinitis which was deviating from other studies. Nasal and aural Myiasis are more commonly seen in our study with almost same sign and symptoms, the main symptoms were foreign body sensation and crawling sensation in the nose, followed by itching and pain. The most common sign was blood mixed discharge followed by appearance of the maggots on sneezing and with discharge. Most of the patients in our study were forced to come hospital by family members after visualizing maggots with blood mixed discharge from nose and ear or any other part of the body. Although the incidence in our study were seen throughout the year, but were more common in July-October. In a study done by Sood & Kakkar(10) the incidences were more in September to November, which was consistent with our study, but in a study done by Sahay et al(11) shown max number of cases in May-June which was different from our study. Many authors were consistent with the treatment plan we adapted.

CONCLUSION:

Myiasis is truly a debilitating condition, stigma to the society. Still this merciful condition is present in many under-developed and developing countries worldwide. In India it is seen throughout the year. In our study it was observed that insensitivity and neglecting the patient by relatives was the key factor in the development of the Myiasis. The climatic conditions in our country are also favourable for the development of the disease. If the patient reaches to the hospital in time, the treatment has a great success rate and serious complications can be prevented in that way. The only way to reduce the incidences of Myiasis is the awareness among the general population and the sensitization of the patients and the relatives as well.

Conflict of interests:None

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