THREE CASES OF ORAL MYIASIS DUE TO CHRYZOMYA BEZZIANA

ABSTRACT
In this article we present three cases of oral myiasis. In all the cases maggots were seen to be burrowing into the underlying tissues and relatively large number of maggots were present. The management included turpentine oil irrigation and removal of maggots manually in the two cases and an additional ivermectin therapy in the third case.

KEYWORDS
Oral Myiasis, Chrysomya Bezziana, Mental Retardation, Stroke, Neurodegenerative Disorder.

INTRODUCTION:
The term myiasis was coined by Hope in 1840. Myiasis can occur in any part of the body and is accordingly named. Oral myiasis was first described by Laurence in 1909. The term myiasis (Greek: myia – fly) is used to refer the infestation of living tissues of humans and animals, by dipterous eggs or larvae. The oral cavity is rarely affected by this infestation. Oral myiasis has been found to be associated with poor oral hygiene, alcoholism, senility, suppurating lesions and others conditions. The myiasis can be classified as obligatory, when larvae develop in living tissue, or facultative, when maggots feed on necrotic tissue. The obligatory myiasis is more harmful for the humans. The most common anatomic sites for myiasis are the nose, eye, lung, ear, anus, vagina and more rarely, the mouth.

CASE REPORTS:
CASE – 1:
A case of 16 year old patient with mental retardation was brought by her parents, with the complaint of worms inside their daughter’s mouth since one day. On examination the patient presented with upper lip swelling. The oral examination revealed a diffused indurated swelling nonfluctuant on palpation over both labial and palatal mucosa. Mucosa over the swelling was inflamed and tender. Few maggots were seen moving in a furrowed opening around the upper incisors. Patient was treated by application of turpentine oil and removal of maggots manually with tweezer in two visits. For access mucoperiosteal flap was reflected, a total of 47 maggots were removed from the area. Maxillary bone in relation to the lesion was slightly eroded. Total extraction was done prophylactically, after explaining to the parents and taking consent.

CASE – 2:
A case of 82 year patient with the history of stroke 30 days back, brought by her relatives, with the complaint of worms inside their mouth. On examination patient was unconscious with GCS of 6. She could not close her mouth and had nasogastric tube for feeding. Intra oral examination revealed presence of soft tissue burrows in buccal vestibule in relation to right side maxillary and mandibular molars with several maggots in them. Treatment was done by turpentine application and manual removal of maggots as they came out. Removal of maggots was done for three consecutive days until no maggots were evident. A total of 75 maggots were removed from the lesions.

CASE – 3:
A case of 12 year old boy with neurodegenerative disorder was referred with complaint of worms in the mouth since two days. On examination patient was unconscious with GCS of 7 and had nasogastric tube for feeding. Extra orally, reddish indurated area over the left commissural region was seen. Intra orally, a soft tissue pocket in the left buccal mucosa was seen with few maggots in it and a pocket under the palatal mucosa was seen containing few maggots. Treatment was done with turpentine application and removal of maggots manually. A total of 112 maggots were removed. In this case an additional therapy with single dose Ivermectin 3 mg was used and was found to be effective in controlling any residual infestation.

DISCUSSION:
Myiasis occurs by dipterous larvae developing inside the tissues. The developmental transition via the larval stage requires an intermediate host and the number of developing larvae depends on the number of viable eggs deposited. Chrysomya Bezziana is one of the causative organisms for obligatory myiasis. The species was found to be widely distributed throughout South-East Asia, China, the Indian Subcontinent, tropical Africa, and Papua New Guinea. Infestations with C bezziana differ from usual maggot infestations because C bezziana can cause tissue invasion without pre-existing necrotic tissue and can cause extensive damage to living tissue if the condition is left undiagnosed. In all of our cases, poor oral hygiene might have played a role in attracting the female flies of C bezziana, lack of self-care ability and communication capacity and poor socio economic status, might have led to their late presentation. In all of our cases large number of maggots were removed, which shows the severity of invasion. The traditional management for myiasis is the mechanical removal of the maggots. When there are multiple larvae and in advanced stages of maggots development and tissue destruction, local application of several substances have been used to ensure complete removal of all larvae. Recently a systemic treatment with Ivermectin, a semi-synthetic macrocide antibiotic, has been used for treatment of oral myiasis. In our case series, the extensive infestation led us to use turpentine and manually remove the maggots, and only in one case we could use Ivermectin therapy for further control. Though Ivermectin seemed to be effective we could not come to a firm conclusion about its efficacy. To conclude, oral myiasis is a rare condition and very few cases have been reported in the literature, so this case series may be beneficial to add to its incidence. There is no established treatment protocol for this condition and there is scope for further research in this regard. For its prevention, educating the health care personnel and relatives about the importance of oral hygiene of the debilitated patients who cannot care of themselves would help.

REFERENCES