

## A RARE CASE OF PALATINAL ORAL MYIASIS CAUSED BY WOHLFAHRTIA MAGNIFICA

### WOHLFAHRTIA MAGNIFICA KAYNAKLI NADİR BİR PALATİNAL ORAL MİYAZ VAKASI

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#### ABSTRACT

Myiasis (from the Greek word for fly, myia) is an uncommon disease in human caused by fly larvae. Especially, oral myiasis is very rare condition in healthy persons; it is usually associated with poor public and personal hygiene. Most of the patients with oral myiasis were reported from the tropical countries with low socioeconomic status; however, sporadic cases were occurred in developed countries. We present here a case of oral myiasis in a healthy 4 - year-old boy. Three maggots found in anterior maxillary palatal gingival sulcus of upper incisors. All maggots were removed manually with clinical forceps. The larvae were identified as the third stage larvae of *Wohlfahrtia Magnifica* (Diptera; sarcophagidea). The healing was uneventful.

#### ÖZET

Miyaz (Yunanca'da sinek için kullanılan myia kelimesinden) sinek larvalarının sebep olduğu nadir görülen bir hastalıktır. Özellikle oral miyaz sağlıklı insanlarda çok nadirdir ve genellikle kötü toplumsal ve kişisel hijyen ile ilişkilidir. Oral miyaza sahip hastaların birçoğunun düşük sosyo-ekonomik seviyeli tropikal ülkelerde rapor edilmesine rağmen, gelişmiş ülkelerde de nadir vakalar görülmüştür. Bu makalede 4 yaşındaki bir erkek çocukta görülen oral miyaz vakası sunulmaktadır. Hastada üst kesicilerin palatal diş eti oluşunda üç adet sinek kurdu bulunmuştur. Kutçuklar manuel olarak klinik forceps ile uzaklaştırılmıştır. Kutçukların sebebinin *Wohlfahrtia Magnifica* 3. dönem larvaları olduğu tespit edilmiştir. Hastamızda iyileşme sorunsuz olarak gerçekleşmiştir.

#### INTRODUCTION

Myiasis is infection of tissues or organs of animals by fly larvae and frequently occurs in livestock and pets in rural areas.<sup>1</sup> As described previously true human myiasis is established only when the fly larvae remains in the host for a long period feeding on hosts dead or living tissue, body fluids, ingested food and producing clinical illness.<sup>2</sup> Human myiasis may be benign and asymptomatic or may result in wild to violent disturbance, even death. Infestations with fly larvae may occur when flies deposits eggs or first stage larvae on the human body or body apertures. Children are among those most predisposed to myiasis due to their playing habits. Fly larvae may be present on the dead and decaying organic matter and

domestic animals like dogs and cats which are naturally infested with fly larvae and can be source for infection in children. Oral myiasis is a rare process, even though it was first described in literature by Lawrence in 1909.<sup>3</sup> Presented case, here, is the second report in our region to describe a laboratory-based diagnosis of human oral myiasis due to *Wohlfahrtia Magnifica*

#### CASE REPORT

A 4 years- old boy admitted to the department of Oral and Maxillofacial Radiology with chief complains of swelling of upper palate and discomfort with upper incisor teeth region since 4-5 days. He was healthy and had no other systemic disease. Patient and family lived in an urban area. Their medical

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conditions and socioeconomic status were normal. Extra oral examination revealed no problems however intraoral examination revealed swelling and mutilated palatal gingiva of the maxillary incisors, and animated and live maggots were visible clinically (Figure 1A). We did not need to use any systemic asphyxiating drugs for our case. Only mechanical removal of larvae was done by clinical forceps (Figure 1B). 0.12 % Chlorhexidine was given to patient and the healing was uneventful. Parasitological examination of the larvae revealed the characteristic posterior spiracles of the third stage of *Wohlfahrtia Magnifica*. The genus *Magnifica* was belonged to family *Sarcophagidea* (Figure 2). The average length of larvae was 12-14 mm.



Figure 1(A-B). A: The clinical view of the case. B: The view of removed larvae.

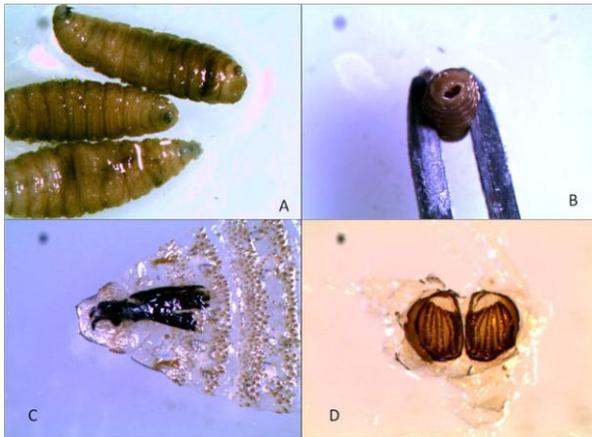


Figure 2(A-D).The parasitological examination of the larvae. A: The whole larvae, B: The posterior view of the last segment, C: Cephalo-pharyngeal skeleton. D: Anterior and posterior spiracles.

## DISCUSSION

Flies such as dipterans may infest animals and humans, causing myiasis infection by fly larvae.<sup>1-4</sup> When the tissues of oral cavity are infested by the fly larvae the oral pathologist names this condition as oral myiasis. Oral myiasis is a rare process in developed countries, but can occur anywhere.

The predisposing conditions included medical or anatomical factors such as cerebral palsy, mouth breathing, anterior open-bite, neglected fractures, poor oral hygiene, traumatic ulceration, surgery, also indicated patients with psychiatric disorders, as well elderly or children and depilated persons. They should be protected from flies, because of their autism and/or diminished sensitivity, which may make it easy for flies to deposit eggs or larvae on the patient body.<sup>2,5-8</sup> Most cases of oral myiasis which seen in children are relevant to low socioeconomic level and systemic medical problems. However, as reported in the present case, oral myiasis may also occur in a child with such a young age of a great socioeconomic level, which presented no systemic problem of health and located in the gingival sulcus.

In the present case, the location of the lesion in the anterior part of the oral cavity convinced us that the patient usually sleep with open mouth and the larvae might have been laid directly by the fly in and around the mouth, feeding and growing easily into the gum sulcus. The parents of the patient confirmed our diagnosis and they stated that the patient sleep with open mouth occasionally.

The routine treatment for myiasis does not exist, but more than a few authors note that the management is mechanical removal of these maggots either with or without the use of topical and systemic asphyxiating drugs that force the larvae to come out of the tissue. Various substances have been recommended such as ether, chloroform, olive oil, calomel, iodoform, phenol mixture for the treatment of myiasis, however these treatments may lead to controversial results.<sup>9</sup> Also, the use of systemic ivermectin can be favourable in more severe cases.<sup>10</sup> In the present case, the treatment was simplex; the manual removal of the maggots was the best treatment.

Oral myiasis is an uncommon and preventable disease. The prevention of oral myiasis is directly

related to the fly population, general cleanliness, education of people and motivation of oral hygiene<sup>11</sup> especially among individuals living in localities without basic sanitation.

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