

Vulvar Myiasis

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Background: To report a rare case of vulvar myiasis caused by *Wohlfartia magnifica*, including clinical and microscopic observations.

Case: A vulvar lesion was found in a 31-year old married female villager with the history of dropping fly larvae from vulva, vulvar pain and itching sensation. The larvae were identified as the species of *Wohlfartia magnifica*. The lesion was washed with batticon over a period of five days and the patient was discharged.

Conclusion: Vulvar myiasis should be considered in the differential diagnosis of genital lesions. The diagnosis can be easily established based on microscopic features of the maggots, especially those relating to stigma structures.

Key Words: Myiasis, *Wohlfartia magnifica*, Turkey

INTRODUCTION

Myiasis is the infestation of dipterous larvae in humans and other vertebrate animals. The larvae feed on the host's dead or living tissues, liquid body substances, or ingested food. Maggots can infest any organ or tissue accessible to fly oviposition; most cases probably occur as a result of direct egg or larvae deposition on a human host. Adult flies feed on feces or decaying meat or fish, and a single female fly deposits 40 to 80 first-stage larvae, which are capable of penetrating tissue, and thus cause immediate problems depending on the body site.¹ In particular, these

requirements explain the rarity of myiasis, because of the nature of the etiologic agent and of the anatomical site. Flies are known to cause disease in humans in three ways; they may bite (common horsefly), live on decaying matter (maggots), or burrow into the skin (furuncular myiasis).²

CASE REPORT

A 31-year old married female villager presented at Kayseri Obstetrics and Gynecology Hospital with the history of dropping fly larvae from the vulva, and with vulvar pain and itching sensation in August-1999. She lived in a rural area of Kayseri in conditions of poor hygiene, which were compatible with a high risk of disease. Her non-hygienic toilet was outside the house and attracted many flies.

During physical examination, we observed a lesion, approximately 4 mm in diameter and 2.5-3 cm in depth, in the upper side of the right labium minus near the clitoris. Surrounding erythema and edema were present and a maggot was protruding from the lesion (Fig. 1). Four other maggots emerged when the lesion was pressed, and all five of the maggots were alive. The lesion was washed with batticon over a period of five days, to ensure the complete removal of the larvae and to prevent secondary infection.

The larvae were sent to the Veterinary Faculty of Ankara University in 70% alcohol solution, and were identified as *Wohlfartia magnifica* by their stigmatic structures (Fig. 2).

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Fig. 1. Protruding out of larva from the lesion.



Fig. 2. Appearance of stigmatic structure of larvae (*Wohlfartia magnifica*).

DISCUSSION

Myiasis is more common in rural areas. In urban areas this pathological condition is usually found among people with poor personal hygiene and a low education level, and among children. This disease occurs mainly on uncovered parts of the body, such as on the arms, legs (furunculoid myiasis) and on the head (cavitary myiasis). Localization of the genital area is rare, with few reports in the literature.³

Wohlfartia magnifica is an obligatory parasite, dependent on its host, without which it cannot

complete its development. The adult insect, when it is self-sufficient, has a flying period, which is limited to the hottest month of the year, that is from June to September and its egg-laying activities occur during the hottest hours of the day. The female is viviparous and can lay larvae on wounds and in the natural cavities of man and animals. Taking advantage of such wounds, the larvae invade the subcutaneous tissues of the host, at whose expense they develop into adulthood. *Wohlfartia magnifica* infests a great number of mammals (cows, horses, goats, sheep, pigs and birds) and man can be considered as only an occasional host. The distribution of this species is very extensive, including Europe, North Africa, Asia Minor, Asiatic Russia, Manchuria and China, with the exception of the coldest Northern areas.²

The following cases have been reported involving infestation by the larvae of *Sarcophaga*, a member of the same genus as *Wohlfartia magnifica*, and one, which only occasionally infests human tissue. Gomes and colleagues⁴ reported a case of vulvar myiasis in an 18-year-old girl, and Pico⁵ described a case of vulvar myiasis in a diabetic 86-year-old woman. Passos et al.³ reported one case of vulvar myiasis in a 19-year-old single female patient, with multiple sexual partners. A cavitary lesion with larvae was found in this patient and more than a hundred maggots were removed under peridural anesthesia.

This case highlights the need for thorough genital examination as a means of identifying less common diseases. The physician's role in educating patients (especially those living in rural areas) is important, and must emphasize the development of good personal hygiene.

REFERENCES

1. Garcia SL, Bruckner AD. Medically Important Arthropods in Diagnostic Medical Parasitology. 3th eds. American society for microbiology. ASM press: Washington, D.C.; 1997. p.523-63.
2. Panu F, Cabras G, Contini C, Onnis D. Human auricular myiasis caused by *Wohlfartia magnifica* (Schiner) (Diptera: Sarcophagidae): First case found in Sardinia. *J Laryngol Otol* 2000;114:450-2.
3. Passos MR, Carvalho AV, Dutra AL, Goulart Filho RA, Barreto NA, Salles RS, et al. Vulvar Myiasis. *Infect Dis*

- Obst Gynecol 1998;6:69-71.
4. Gomes PA, Cuce LC, Fukagawa MFN: Miiase vulvar. J Brasileiro de Medicina 1996;70:106-7.
 5. Cilla G, Pico F, Peris A, Idigoras P, Urbieto M, Peres Trallero E. Human genital myiasis due to *Sarcophaga*. Rev Clin Esp 1992;190:189-90.