

# A case of vulvar myiasis

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## Introduction

A 16-year old unmarried girl was admitted to Base Hospital, Kamburupitiya with a history of vulval irritation and a vaginal discharge for 3 days. She had also noted some worms at vulva which she thought were pinworms.

On examination, there was oedema and inflammation of the labia minora of the left side. Few maggots were found on the perineum. An examination under anaesthesia revealed an ulcer of 1 cm in diameter on the inner surface of the left labium minus involving the hymenal ring as well. The ulcer was infested by a large number of maggots. No maggots were found in the vagina or rectum.

Her mother was working abroad and she lived with the father and grandmother. She denied any sexual exposure and she and the guardians did not consent to obtaining vaginal secretions or blood for sexually transmitted diseases. A urine hCG test was negative for pregnancy.

On further questioning she revealed that she used folded cloth instead of sanitary towels during menstrual bleeding, and used to hang the washed cloth on a clothesline outdoors before reuse. There was a possibility that the cloth was not completely devoid of blood even after washing. She could not remember the exact date of the last menstrual period but estimated that it would have occurred 1-2 weeks previously.

Initially about 50 maggots were removed using the non-toothed forceps, and the wound was cleaned with betadine. She was commenced on cefuroxime, metronidazole and doxycycline empirically from the 1st day. She was also given a tetanus toxoid on admission. On the second and third days after the initial discovery, more maggots were appearing from the ulcer, with about 25 more maggots being found on the 3rd day.

By the 3rd day we were able to get down turpentine oil from Colombo, which was applied on the ulcer. By

the 5th day, with 3 days of treatment with turpentine oil, the maggots had completely disappeared and the ulcer was healing.

She was followed up for 6 weeks and was found to be completely cured. She was given advice on personnel hygiene to avoid a reinfestation.



## Discussion

Myiasis is defined as a disease caused by the infiltration of body tissues by larvae of several fly species of veterinary and medical interest. It occurs predominantly in rural areas and is associated with poor hygiene and low educational level<sup>1,2</sup>. It is also common in children<sup>1</sup>. Maggots can enter through intact skin or through a wound. They may also enter a body orifice without tissue invasion (Pseudomyiasis)<sup>3</sup>. Vulvar myiasis constitute only 0.7% of human infestation<sup>4</sup> with few cases reported in published literature. We consider our patient as a case of myiasis as the maggots have invaded the vulvar tissue.

The most common species that infest wounds in USA is found to be *Phaenicia sericata*<sup>4</sup>. The fly species that infest healthy tissue are called Biontophages and responsible for the cutaneous forms of this condition

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(furunculoid myiasis)<sup>1</sup>. Complications include secondary infections and tetanus. Treatment is removal of larvae and thorough cleaning of the affected area. Applying vaseline or nail polish make the respiration impossible for the larvae and is one modality of treatment<sup>1</sup>. A small surgical procedure may be required to remove larvae and after removal the area should be cleaned and covered with an antibiotic ointment<sup>5</sup>. Treatment of secondary infection, and administering tetanus toxoid is mandatory.

As poor hygiene is known to be associated with vulvar myiasis<sup>2,6</sup>, washing and keeping the genital area clean may prevent to a great extent the occurrence of this condition. The most possible source in this case may be the eggs which were transmitted to the vulva via the soiled clothes where the fly had laid eggs when the cloth was on clothesline as flies are known to be attracted to the blood and pus<sup>7,8</sup>. It is important to exclude sexually transmitted diseases as a high proportion of cases had sexually transmitted diseases including HIV<sup>1,2</sup>. Although Sherman recommends maggots to be submitted for species identification<sup>4</sup>, we could not send the specimens as we were not aware of the importance of species identification at the time of diagnosis. The first maggot caught should be submitted in alcohol or formal-dehyde, and half of the remaining preserved and half alive should also be sent for examination. Species identification is crucial in determining pathogenesis, its potential invasiveness, in determining the exact timing and circumstances of infestation.

This is the second time the author has come across vulvar myiasis, the first case being an episiotomy wound infested with maggots in 1996, in Colombo. Many authors who have published their cases believe that vulvar myiasis is under-reported and recommend

reporting of these cases<sup>1</sup>. Use of turpentine oil has been advocated in many cases of cutaneous myiasis worldwide<sup>9,10</sup>, but none have mentioned its use in vulvar myiasis. In our case, the use of turpentine oil produced excellent results.

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