

CASE REPORT

CUTANEOUS MYIASIS OF VULVA CAUSED BY THE MUSCOID FLY (*CHRYSOMYIA* GENUS)

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Myiasis is the infestation of the tissues and organs by fly larvae or maggots. The larvae may invade necrotic tissue or normal unbroken skin or enter the body through various sites, especially soft tissue at eyes, ears, nose, sinuses, gums and genitourinary sites. Myiasis is prevalent in the tropics. Four common clinical syndromes are described, localized cutaneous myiasis, cutaneous larva migrans, deep tissue myiasis and intestinal myiasis (Floride, 1991).

We describe a female patient with cutaneous myiasis of the vulva caused by larvae of the muscoid fly (*Chrysomyia* genus) which usually occurs in animals such as sheep, goat, horse, pig, dog and ox (Sucharit, 1988). Man is only an accidental host of myiasis, most frequently where people live in close contact with domestic animals. Treatment aims at removing the larvae by excision and extraction (Farrell *et al*, 1987; Ockenhouse *et al*, 1990). Asphyxiating the larvae by blocking the spiracles using paraffin or petroleum jelly over the lesion is also recommended (Chopra *et al*, 1985).

A 29 years old, single female (Miss MP) was admitted to the gynecologic ward, Satun Provincial Hospital because of an ulcerating wound and severe pain in the vulva. Approximately 3 days prior, during the night she suddenly developed severe pain at the groin area. She went to a local health center because of itching and painful wound in the vulva. Some antibiotics and analgesic drugs were prescribed but did not improve her symptoms, so she came to Satun Hospital. Physical examination revealed a thin poorly hygienic 29 year-old woman in severe discomfort. She was febrile, body temperature 38°C. The skin was remarkable for the presence of ulcerating, excavated and car-

buncle-like wound at the left mons pubis and labia minora. The surrounding skin was also inflamed. During examination something crawling was seen beneath the skin surface at the mons pubis. Pus and serosanguineous fluid were oozing from the lesions. Relevant laboratory data included a white blood cell count of $11.8 \times 10^9/l$ (segmented neutrophils 80%, lymphocytes 14% and eosinophils 6%). Debridement under general anesthesia was done. Beneath the necrotic tissue there many fly larvae were found. The maggots were identified as muscoid fly larvae (*Chrysomyia* genus). They were cylindrical, about 10-12 mm long. Their bodies were segmented with bands of spines (Fig 1). The posterior spiracles were separated incomplete peritremes with straight slits and lateral buttons (Fig 2). The spiracle slit had a lateral loop. They had five indented anterior spiracles. A total of 28 larvae was removed from the first debridement (Fig 3). After removal of the larvae, the patient felt immediate relief from pain and pruritus.

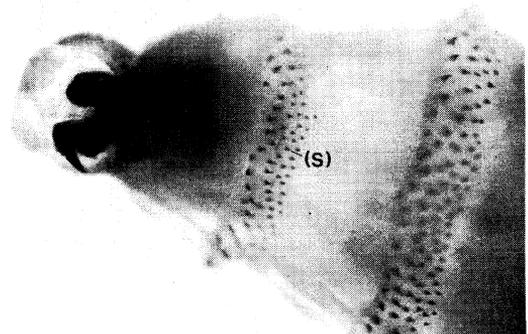


Fig 1—Segmented body with bands of spine (S) in muscoid fly larvae ($\times 400$).

CUTANEOUS MYIASIS OF VULVA

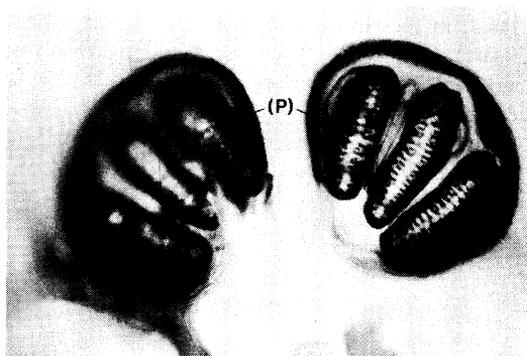


Fig 2—Separated incomplete peritreme (P) of posterior spiracle in muscoid fly larvae.

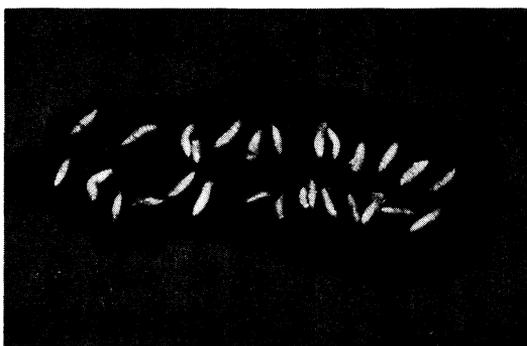


Fig 3—Twenty eight larvae of muscoid fly removed from the wound during the first debridement.

A course of cloxacillin and gentamicin was started for treatment of superimposed infection. Tetanus antitoxin and tetanus toxoid were also prescribed. The patient had not sits baths twice a day with betadine solution. Ten to twelve larvae was removed each day. After 10 days most of the lesion healed very well, only a big excavated lesion at the mons pubis and 9 punctated lesion at the left labia minora was left (Fig 4). The patient was discharged after 14 days of admission. She was told about her disease and was educated for improvement of personal hygiene. Follow up 1 month later revealed good healing and minimal lesion left.

The presentation of cutaneous myiasis in the patient described here is typical of the condition caused by the muscoid fly (*Chrysomya* genus). Man rarely may serve as the accidental intermediate host for the developing larvae. The obligatory hosts are domestic animals such as the sheep,



Fig 4—Excavated lesion at mon pubis and left labia minora after 10 days of treatment. I = introitus.

goat, horse, pig, dog and most commonly, ox. Adult female flies deposit 150-500 eggs in an obligatory host, usually during the night. In the accidental host, deposition occurs in unclothed areas, in poorly hygienic persons, old, ill and debilitated patients (Chopra *et al.*, 1985). This patient lives in a small village nearby the sea in Tambon Tanyonpo, Satun Province. Most of people in the village are fishermen. They have poor socioeconomic status and live in close contact with domestic animals. Some of fish they catch are mixed with salt, laid sown on an iron sieve and dried by sunlight. Flies usually pester these salty fish during drying. After deposition within the skin of the host, larvae hatch from eggs on the second day. After 5 to 6 days, they emerge and fall to the ground, pupate and develop into adult flies in 7-9 days later (Fig 5).

The lesions caused by developing larvae in muscoid fly myiasis are localized to skin and subcutaneous tissue. Typical initial symptoms are slight itching followed by greater intensity with severe pain as the larvae grow and begin to move. Tissue destruction and inflammation may be mistaken for an infected wound or a boil. Persistent pruritic lesions having a dark seropurulent or serosanguineous discharge, resembling boils and complaints of a crawling sensation should lead the physician to consider myiasis.

Our patient had a particularly heavy larval load with more than 100 larvae retrieved. Her underlying poor personal hygiene and habitat in a crowded village with poor sanitation underlay the development of myiasis. Treatment aimed at removing the larvae by both surgical excision and

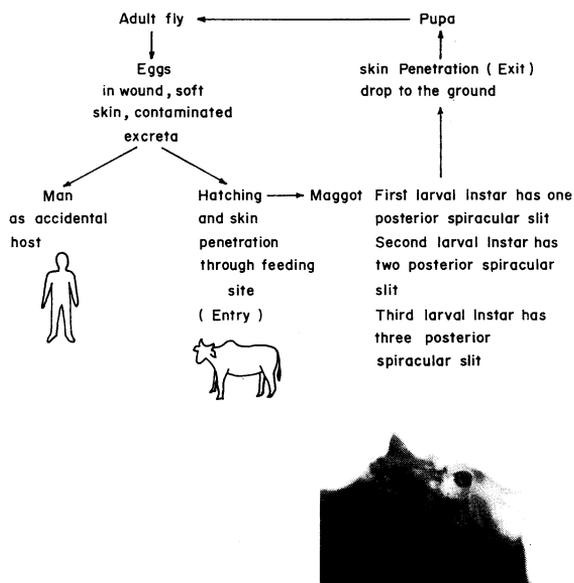


Fig 5—Life cycle of *Chrysomya* genus.

asphyxiating them with mineral oil, paraffin or petroleum jelly applied to the central opening

result in the suffocation and early exodus of the larvae. Prophylaxis for tetanus and treatment of superimposed wound infection should also be considered. The most important management is education for improvement of the local environment and personal hygiene for prevention of further infestation.

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