

Live Maggots in Perineum

Anjali Chaudhary¹, Umesh Varma², Aditya Varma³

¹Consultant, Department of OBGYN, Aarogya Hospital, Delhi, India

²Consultant, Department of Medicine, Aarogya Hospital, Delhi, India

³Medical Student, Sri Ramchandra Institute of Higher Education and Research, Chennai, India

Abstract: ***Introduction:** Perineal myiasis is a rare pathology and is associated with poor hygiene. It arises from invasion of body tissues of cavities of living animals by maggots or larvae of certain dipterian flies. It is mostly reported in developing countries and in the tropics. **Case Report:** We hereby report a rare case of perineal myiasis in a 43 yrs educated, middle class female with extensive necrotic lesion burrowing into the labia major through which numerous live maggots (larvae) were seen emerging out and discuss the managements of the same. **Management:** In the present patient, debridement was done under G/A with use of turpentine oil along with copious irrigation with normal saline and provide one iodine followed by mechanical removal of maggots, and antibiotic coverage with amoxicillin was used for the treatment.*

Keywords: Maggots, Myiasis, Flies, Infestation

1. Introduction

Myiasis is a term derived from the Greek word “myia” meaning invasion of vital tissue of humans or other mammals by fly larvae [1]. The term myiasis “was coined by F. W. Hope in 1840 to refer to disease of human originating with larvae [1, 2]. Myiasis is the parasitic infestation of the body of a live animal or human by fly larvae (maggots) which grow inside the host while feeding on its tissue.

Myiasis frequently occurs in rural areas, infecting livestock, and in humans prevails in unhealthy individuals in third world countries. Human myiasis is reported mainly in developing countries such as Asian and African countries [3, 4, 5]. Predisposing factor are poor hygiene, ulcerative lesions, carcinoma, Bartholin abscess, carbuncle, nosocomial infection, in drug addicts and psychiatric patients [4, 5].

The larvae of chrysomya bezzian burrow deep into the host’s healthy living tissue in a screw – like fashion feeding on living tissue [6]. In our case also the larvae were present deep into the tissue in the right labia majora and this may be responsible for the extensive necrosis observed in the present case [7, 8, 9].

The treatment of myiasis comprises of local and systemic measures. Local measures consist of topical application of turpentine oil, mineral oil chloroform ethyl chloride, or mercuric chloride followed by manual removal of the larvae and surgical debridement [10]. Systemic treatment includes broad - spectrum antibiotic such as ampicillin and amoxicillin especially when the wound is secondarily infected [10]. In this paper, we present a case of myiasis caused by chrysomya bezziana involving the right labia majora in 43 yrs educated middle class female followed by a review of the literature.

2. Case Report

An educated 43 yrs female with middle socio - economic

background presented with chief complaint of swelling and itching in relation to right side of perineum for 5 - 6 days. She gave history of extreme pain which was of pricking type radiating to the vulva & vagina. She had difficulty in walking. Perineal examination revealed a single diffuse ulcerated swelling 6x5 cm involving outer surface of right labia majora with ruptured carbuncle abscess with greyish white, live maggots crawling through the opening of the wound. On palpation there was no local rise in temperature the swelling was firm, extremely tender with necrotic edges of soft tissue wound being 6cm deep (6x6x5cm). The patient was treated by removal of the maggots, debridement, and irrigation. The wound was debrided under general anaesthesia and roller gauze impregnated with turpentine oil was inserted into the cavity created as a result of tissue necrosis. 30 - 40 live maggots were harvested from the affected region. Copious irrigation with normal saline and povidine iodine was performed under antibiotic coverage with oral amoxicillin albendazole (400mg) stat. Patient completely recovered after 10 days and on epidemiological examination the maggots were found to be species chrysomya bezziana.

3. Discussion

Myiasis has been defined by Zumpt as ‘the infestation of live human and vertebrate animals with dipterous larvae which at least for a certain period feed on the host’s dead or living tissue, liquid body substance or ingested food’ [1, 2]. Myiasis occurs more commonly in rural area than in urban and predisposing factor may be medical conditions like diabetes mellitus, psychiatric illness, leprosy, mental retardation, poor hygiene, infected carbuncle, Bartholin abscess, cancerous wound [3, 4, 5].

Occasionally some patients with ischaemia to the wound, may experience pain and fever if there is secondary infection [5].

In our present case the patient was 43 yr educated, middle socio - economic, medically healthy women but with poor perineal hygiene. Which may be thought of as predisposing

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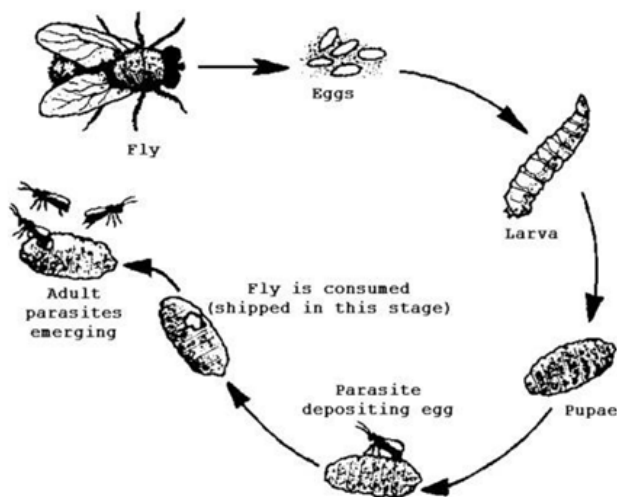
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and contributing factors to myiasis in this case.

Based on substrate, myiasis is classified as (a) primary myiasis, when larvae feed on living tissue and (b) secondary, when larvae feed on dead tissue [4, 5, 6]. Depending upon the mode of infestation it is of three types: (a) accidental myiasis, when the larvae get ingested along with food, (b) semisepecificmyiasis, when the larvae are laid on necrotic tissue of the wound, and (c) obligatory, when larvae affect undamaged skin. Based on the degree of host dependence, it is classified as (a) obligatory, where fly larvae are completely parasitic and depend upon the host for completion of their life cycle, (b) facultative, where the fly larvae are free living and only circumstantially adapt themselves to parasitic dependence to a host. Based on anatomic site, it can be classified as (a) cutaneous myiasis (b) myiasis of external orifices and (c) myiasis of internal organs [5, 6].

Flies causing myiasis belong to the order diptera. The genera commonly reported are sarcophagidae, calliphoridae, oestridae, and muscidae from the dipteran order. *Chrysomya bezziana* also known as “old world screwworm”, is an obligate parasite and belongs to the order diptera, family calliphoridae and suborder calliphoridae [6].

The adult fly of *chrysomya bezziana* is a green or blue - green fly and widely distributed in tropical and subtropical countries of Africa and Asia, including Southeast Asia, India, Saudi Arabia, Indonesia, the Philippines, Papua, New Guinea, and Persian Gulf [3, 6]. The development of *chrysomya bezziana* from egg to adult fly can be completed in 18 days under optimal conditions. The adult female fly lays eggs on live mammals and deposits around 150 - 200 eggs every two days at the site on the wound in body orifices. The eggs hatch after 12 - 18 hours and the first stage larvae, white in color and 1.5mm in length will emerge from the eggs and then burrow into wound or wet tissues. In about four days the larvae moult into the second and third stages 4 - 18 mm in length. After 5 - 7 days the third stage larvae would leave the wound and fall to the ground to pupate and transformed into about fly around seven days later [3, 4, 6].



Chrysomya bezziana differs from other maggot infestations by its ability to cause tissue invasion even without pre -

existing necrosis. The larvae of *Chrysomya bezziana* burrow deep into the host's healthy living tissue in a screw - like fashion on living tissue [7, 8, 9].

In our case the larvae were present deep into the tissue in the right labia majora and this may be responsible for the extensive necrosis observed in our case. Finally with debridement and use of turpentine oil along with provide one iodine irrigation under antibiotic coverage [10]. We were able to treat the patient successfully.

4. Conclusion

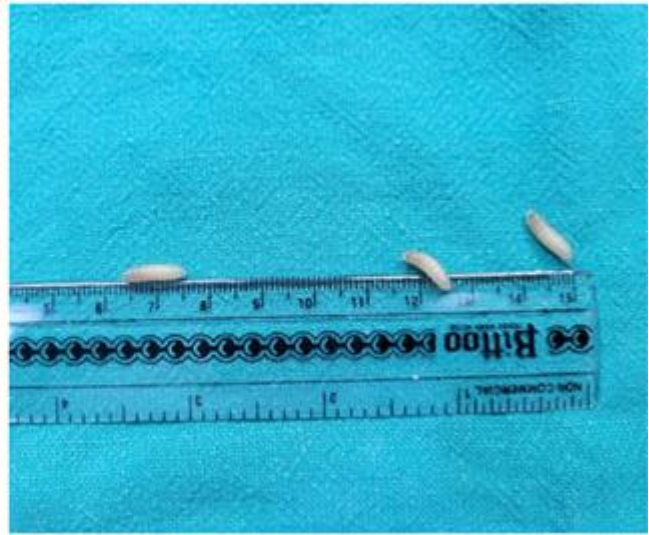
Myiasis is an uncommon condition, is generally self - limiting. The clinician should be aware of this disease and should take appropriate measure for its prevention. Prevention of myiasis involves control of fly population, general cleanliness, maintaining good personal hygiene and provision for basic sanitation and healthy education. A very intimate care to be taken in medically compromised dependent patients as they are unable to maintain their basic hygiene.

5. Conflict of interests

The authors declare that there is no conflict of interests regarding the publication of this paper.

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MICROORGANISM (MAGGOT) ISOLATED: CHRYSOMYA BEZZIANA

==== End Of Report ====



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