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An Unusual Case of Vulvar Myiasis: A Case Report

Digant Patel[1], Jagrut Patel[1], Bindu Madhavi[1*], Rutul Shah[1] and Vivek Yadav[1]

[1]Department of General Surgery, M.S. University, Vadodara, Gujarat, India.

Authors' contributions

All authors contributed equally in treatment, management and follow -up of the patient and in compilation of the case report. All authors read and approved the final manuscript.

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Case Report

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ABSTRACT

Introduction: Myiasis is the infestation of dipterous larva (maggots) in humans and other vertebrate animals. Presence of maggots in other body parts is common, but on covered parts like external genitalia is very rare [1]. We here by describe a case of young unmarried female who presented with multiple sinuses over external genitalia along with maggots coming out of it.
Patient Information: An 18 year old female presented to us in emergency with complaints of maggots from external genitalia since 3 days.
Therapeutic Intervention: Patient was given injectable antibiotics and daily dressing was done with turpentine oil. Patient was discharged on day 4 with personal hygiene explained.
Conclusion: In this modern era maggots infestation in external genitalia is rarely seen but in this case it is likely due to unhygienic practice of cloth usage during menstruation instead of sanitary napkins.

Keywords: Myasis; vagina; maggots; young female; case report.

1. INTRODUCTION

Myiasis is derived from the Greek word MYIA meaning FLY [1]. The term was first introduced by Hope in 1840 and refers to infestation of human beings with dipterous larva (maggots) [1]. Myiasis is the infestation of dipterous larva in humans and other vertebrate animals [1].

**Corresponding author: E-mail: madhavireddykmc@gmail.com;*

The adult fly lays its eggs on living tissue that developes to become larva that feed on living tissue having passed through three developmental stages. A single female fly deposits around 40 – 80 first stage larvae, which can penetrate the tissue and thus cause immediate problems depending on the body site involved. The adults are attracted to the natural moist body openings, open wounds or pooled blood of animal or human host.

Maggots are seen on the exposed body parts with infected skin lesions in small neglected children, very old patients, mentally retarded, bedridden patients who are not able to take care of themselves [1]. In young, healthy mentally sound and active persons it is rare to see maggots and too rare to be seen in covered parts like genitals [1].

Maggots invade exposed often wounded tissue and feed off blood from the host that may ultimately result in death through extensive tissue damage. Another form is cavitatory myiasis that involves invading body cavities such as nose, mouth, anus or vagina.

2. INCIDENCE

Vulvar myiasis is a rare entity with 0.7% incidence [2].

3. PATIENT INFORMATION

An 18 year old unmarried female presented to us in emergency with complaints of maggots from external genitalia since 3 days.

There was associated complaint of burning pain and itching at local site since 1 week. History of fever, burning micturition, lower abdomen pain and history of trauma were ruled out. There was no history of sexual activity and insect bite. Immunosuppressive drugs and steroids were not taken by the patient.

The patient attained menarche at 14 years of age with regular menstrual cycle. Patient used age old traditional methods of cloth during menstruation in this era of sanitary napkins.

4. CLINICAL FINDINGS

On local examination of external genitalia both labia majora were tender, erythematous and swollen with approximate 3x3 cm large ulcer above clitoris with multiple discharging sinuses stuffed with crawling maggots of dirty white color.

Labia minora were normal and the hymen was intact.

There was no significant lymphadenopathy.

Fig. 1. Ulcer studded with maggots

5. INVESTIGATIONS

Basic routine blood investigations including the total WBC count, Hemoglobin, Serum creatinine, Blood sugar and Bilirubin were done and found to be normal.

Urine routine microscopy was normal. Urine culture had no organism. Urine examination for pregnancy was negative.

Her serology for HIV and Syphilis was negative.

X ray chest was found to be normal.

6. THERAPEUTIC INTERVENTION

Patient was admitted and was given injectable Augmentin empirically from day 1.

Maggot dressing was done with utmost care using turpentine oil taking care that turpentine doesn't spill around. On day 1 and 2 manual picking of maggots was done. On day 3 no maggots were left *in situ*.

Lesions healed within a week time and patient was discharged on day 4 and advised regarding personal and menstrual hygiene to avoid re-infestation.

7. DISCUSSION

Myiasis occurs predominantly in rural areas with poor hygiene and low education level [1]. Maggots can enter through intact skin or through a wound. They may also enter a body orifice without tissue invasion (pseudo-myiasis) [1].

The classical description of myiasis is according to the part of the host that is infected [3].

a) Dermal
b) Sub-dermal
c) Cutaneous

   (1) Creeping, where larva burrow through or under the skin
   (2) Furuncular, where a larva remains in one spot, causing a boil-like lesion

d) Nasopharyngeal nose, sinuses or pharynx
e) Ophthalmic or ocular in or about the eye
f) Auricular in or about the ear
g) Gastric, rectal or intestinal/enteric for the appropriate part of digestive system
h) Urogenital

Vulvar myiasis is a rare entity and constitutes only 0.7% of human infestation [2]. We consider our patient as a case of myiasis as the maggots have invaded the vulvar tissue. As poor hygiene is known to be commonly associated with vulvar myiasis, regular washing and keeping the genital area clean may prevent the occurrence of this condition to great extent [4].

The possible source of infection in the present case may be the eggs, which were transmitted to the vulva via the soiled clothes. It is a common habit among the villagers to dry their washed soiled clothes on ground. The flies might have laid eggs when the garment was on clothes line as flies were attracted to blood and body secretions.

Fig. 2. Healing ulcer after treatment

The use of turpentine oil produced excellent results in our case. In our case there was no pre-existing genital lesion and seropositivity for HIV as a precipitating cause of myiasis. The lack of personal hygiene is the major contributing factor for the cause of myiasis, more so with genital myiasis. Care should be taken not to rupture the maggots because they may cause secondary infections or trigger severe reactions.

The simplest treatment for myiasis is application of an occlusive agent such as white soft paraffin, wax, glue, adhesive tape or chewing gum followed by physical removal of maggots. Lidocaine or pilocarpine can be instilled to paralyze the worm to facilitate removal.

Gomes and colleagues [5] reported a case of vulvar myiasis in an 18-year-old girl and Cilla et al. [6] described a case of vulvar myiasis in a diabetic 86 years old. Passos et al. [7] reported one case of vulvar myiasis in a 19-year-old single female patient, with multiple sexual partners. Baidya [8] had reported a case of genital myiasis in women with genital prolapse and malignancy.

8. CONCLUSION

Myiasis in external genitalia is a rare condition but should be considered in the differential diagnosis of genital lesions. This case shows that vulvar myiasis in a young unmarried female without any precipitating factors is extremely rare and may be due to poor hygiene and usage of soiled cloth during menstruation instead of sanitary napkins.

This study emphasizes the role of a doctor in educating the patients living in rural area about good personal and menstrual hygiene.

CONSENT

Consent has been taken from the patient.

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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