Vulvar myiasis: A rare case report

Savita Singhal, Parul Bhugra

ABSTRACT

Introduction: Myiasis is a parasitic infestation of tissues of living vertebrae by the larvae of dipterous flies. The condition usually occurs on exposed part of the body. The location of myiasis is very rarely seen on the vulvar area. Case Report: We present a case of vulvar myiasis affecting a 72-year-old female. The patient was investigated for any predisposing factor. The larvae were removed after application of turpentine oil. Conclusion: Genital myiasis is very uncommon. Awareness of the disease and careful examination of the lesion is important for making correct diagnosis.
Vulvar myiasis: A rare case report

Savita Singhal, Parul Bhugra

ABSTRACT

Introduction: Myiasis is a parasitic infestation of tissues of living vertebrae by the larvae of dipterous flies. The condition usually occurs on exposed part of the body. The location of myiasis is very rarely seen on the vulvar area. Case Report: We present a case of vulvar myiasis affecting a 72-year-old female. The patient was investigated for any predisposing factor. The larvae were removed after application of turpentine oil. Conclusion: Genital myiasis is very uncommon. Awareness of the disease and careful examination of the lesion is important for making correct diagnosis.

Keywords: Infestation, Larvae, Myiasis, Vulvar

INTRODUCTION

Human myiasis is caused by fly larvae capable of penetrating body orifices as well as healthy or necrotic tissues. Myiasis is more common in rural areas. In the urban areas, the disease is usually found among people with poor hygienic habits and low education level. Although human myiasis occurs rarely, it probably occurs at a higher rate than is currently thought. A careful examination is needed to identify vulvar myiasis as it can be confused with many common diseases such as insect bite, cellulitis, etc.

CASE REPORT

A 72-year-old female presented in the gynecology outpatient department of our institute with the chief complaint of pain over the genital area for five days. The pain was severe, intermittent, throbbing in nature, associated with a crawling sensation and discharge from the genital area. The discharge was blood stained and foul-smelling. General physical and systemic examination revealed no abnormalities. On local examination, there was ulcer of size approximately 5x3 cm, irregular in shape, involving right labia majora, labia minora and vagina (Figure 1). Floor of the ulcer was covered with foul smelling slough with numerous maggots. Maggots were also filling the vagina. On palpation, the surrounding area was tender, edge and base of the ulcer was indurated. Inguinal lymph nodes were enlarged and showed the signs of acute lymphadenitis. The patient was admitted for investigations and treatment. The patient was found to be HIV and VDRL non-reactive. Her blood sugar level was within normal limits. The culture from the swab taken from the vulva and vagina showed mixed flora and no sexually transmitted organisms were identified. Histopathological examination of the biopsy specimen from the ulcer edge showed no evidence of malignancy. The treatment was started with antibiotics and analgesics. The larvae were removed manually with the help of forceps after application of turpentine oil and the lesion was cleaned thoroughly. Daily antiseptic
dressing and turpentine oil application continued for the presence of any deeply burrowed larvae. The patient was discharged after four days of hospital stay on antibiotics and analgesics.

DISCUSSION

Myiasis is a zoonosis resulting from an infestation by the larvae of flying dipterous insects. There are two forms of myiasis: obligate, in which the larvae feed themselves on living tissues and facultative myiasis, where the larvae opportunistically take advantages of wounds or degenerative necrotic conditions [1]. Depending on the body parts involved, myiasis can be classified as mucocutaneous, ophthalmic, nasal, nasopharyngeal, intestinal or urinary tract myiasis.

The incidence of myiasis is probably underestimated as it occurs principally in rural areas where cases are usually not registered. Greenberg identified, four risk factors for infestation by larvae (i) helpless or debilitated person (ii) bleeding or odors of decomposition present (iii) summer season and (iv) neglect in nursing care [2]. Acquired immunodeficiency and the habit of some populations of sitting on the ground, for example, during certain religious rites are other predisposing factors [3]. The larvae can enter through intact skin or a wound. Myiasis may also be caused by the deposition of the ova on the wounds, clothes or by the ingestion of eggs of obligatory myiasis producing flies [4].

The disease occurs mostly on uncovered parts of the body. Infestation is very rarely seen in the vulvar area. The possible modes of vulvar infestation has been suggested to be through (i) fomites, especially with the washed undergarments being dried in the open sunlight on which flies may lay their eggs (ii) due to deposition of the ova on the genital region because flies were attracted by the odor caused by a lack of proper hygiene or by the foul smell caused by multiple infections and the patient did not wear undergarment while sleeping, after sexual intercourse or because the use of undergarment is uncomfortable because of already present genital infection [5, 6].

Mucocutaneous myiasis is of three types, furunculoid myiasis, traumatic myiasis and creeping myiasis. In the furunculoid form, over a period of several days a painful furuncle develops in which the larvae is present. The lesion has a central punctum, which discharges serosanguineous fluid. The lesions may be accompanied by lymphangitis and regional lymphadenopathy. Traumatic or wound myiasis may be seen in neglected ulcers or wounds. The larvae (maggots) can be seen, often in large numbers in the suppurating tissues. In creeping myiasis, an itching pink papule develops, followed by a tortuous line that extends by 1 to 30 cm a day [4, 7].

Mucocutaneous myiasis can be misdiagnosed as adenopathy, cellulitis, skin abscess, insect bite and subcutaneous cysts [8].

The aim of the treatment is to remove the larvae and treat any secondary bacterial infection. In wound myiasis, the larvae can be removed mechanically with forceps and preferably, destroyed to prevent them from pupating. When larvae are burrowed onto deeper tissues, they can be made to come out by application of gauze soaked in turpentine oil. Furunculoid myiasis may be treated by occlusion of the opening of the furuncle with animal fat, paraffin, mineral oil or petrolatum. After this maggots can be removed with the aid of surgical tweezers and the nodule may be gently expressed. Sometimes, surgical incision may be required to extract the larvae. If a surgical approach is used, the incision should avoid lacerating the larvae, as the retained larval parts may precipitates a foreign body reaction. In a creeping eruption, the larvae can be extracted with a needle [6, 9].

CONCLUSION

The location of myiasis at genital region is a very rare occurrence. Knowledge of the characteristic clinical findings and the close inspection of lesions are key to diagnosing myiasis. Pain, swelling and redness can easily be mistaken for sexually transmitted infections. With the correct diagnosis, unnecessary antibiotics and surgical procedures can be avoided.

**********

Author Contributions

Savita Singhal – Substantial contributions to conception and design, Acquisition of data, Analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published
Parul Bhugra – Analysis and interpretation of data, Revising it critically for important intellectual content, Final approval of the version to be published
Guarantor
The corresponding author is the guarantor of submission.

Conflict of Interest
Authors declare no conflict of interest.

Copyright
© 2015 Savita Singhal et al. This article is distributed under the terms of Creative Commons Attribution License which permits unrestricted use, distribution and reproduction in any medium provided the original author(s) and original publisher are properly credited. Please see the copyright policy on the journal website for more information.

REFERENCES

Edorium Journals: An introduction

Edorium Journals Team

About Edorium Journals
Edorium Journals is a publisher of high-quality, open access, international scholarly journals covering subjects in basic sciences and clinical specialties and subspecialties.

Invitation for article submission
We sincerely invite you to submit your valuable research for publication to Edorium Journals.

But why should you publish with Edorium Journals?
In less than 10 words - we give you what no one does.

Vision of being the best
We have the vision of making our journals the best and the most authoritative journals in their respective specialties. We are working towards this goal every day of every week of every month of every year.

Exceptional services
We care for you, your work and your time. Our efficient, personalized and courteous services are a testimony to this.

Editorial Review
All manuscripts submitted to Edorium Journals undergo pre-processing review, first editorial review, peer review, second editorial review and finally third editorial review.

Peer Review
All manuscripts submitted to Edorium Journals undergo anonymous, double-blind, external peer review.

Early View version
Early View version of your manuscript will be published in the journal within 72 hours of final acceptance.

Manuscript status
From submission to publication of your article you will get regular updates (minimum six times) about status of your manuscripts directly in your email.

Our Commitment

Six weeks
You will get first decision on your manuscript within six weeks (42 days) of submission. If we fail to honor this by even one day, we will publish your manuscript free of charge.

Four weeks
After we receive page proofs, your manuscript will be published in the journal within four weeks (31 days). If we fail to honor this by even one day, we will publish your manuscript free of charge and refund you the full article publication charges you paid for your manuscript.

Mentored Review Articles (MRA)
Our academic program “Mentored Review Article” (MRA) gives you a unique opportunity to publish papers under mentorship of international faculty. These articles are published free of charges.

Favored Author program
One email is all it takes to become our favored author. You will not only get fee waivers but also get information and insights about scholarly publishing.

Institutional Membership program
Join our Institutional Memberships program and help scholars from your institute make their research accessible to all and save thousands of dollars in fees make their research accessible to all.

Our presence
We have some of the best designed publication formats. Our websites are very user friendly and enable you to do your work very easily with no hassle.

Something more...
We request you to have a look at our website to know more about us and our services.

We welcome you to interact with us, share with us, join us and of course publish with us.

CONNECT WITH US

Edorium Journals: On Web
Browse Journals

This page is not a part of the published article. This page is an introduction to Edorium Journals and the publication services.