

Human Genital Myiasis in Extremes of Age

Shrestha D,¹ Bista KD,¹ Singh M,¹ Ojha N,¹ Rajbhandari S¹

¹Department of Obstetrics and Gynecology, Tribhuvan University Teaching Hospital, Kathmandu, Nepal.

ABSTRACT

Genital myiasis is a very rare entity associated with poor personal hygiene, restricted mobility, and immunosuppressed status and ulcerating lesions. With the reported incidence of only 0.7%, only a few cases have been published so far in literature but none from Nepal. Despite such rare occurrence, we present here two such cases which we encountered in an interval of three days; one in an unmarried teenager and another in a postmenopausal lady with fungating ulcerative growth of vulval carcinoma. Both were successfully managed.

Keywords: antilarval; genital; myiasis.

INTRODUCTION

Myiasis is the infestation of humans and other vertebrates by dipterous larvae. Commonly known as fly larvae, they can cause massive destruction of tissues in neglected patients followed by severe inflammatory reactions and secondary infections.

Chrysomya is the most common fly to cause human infections. *C. bezianna*, *C. megacephala* and *C. rufifacies* are the usual species.¹ Myiasis usually occurs in exposed lesions in a setting of poor hygiene, immunocompromised states, diabetes and malignancy. But its occurrences in less exposed areas like vulva are uncommon. The incidence of vulvar myiasis is about 0.7%.² We present here two such cases successfully managed in our department.

CASE 1

An 18 years unmarried school-going girl presented to Emergency Room of T.U. Teaching Hospital with the complaints of sudden onset vulval itching for 6 days. It was progressively intensifying but not associated with abnormal vaginal discharge/bleeding. She was initially treated in the line of fungal infection and later prescribed some psychiatric medications too because of her persisting complaints despite no abnormal physical findings. With vulval swelling and persistent itching she thus visited our hospital.

On examination, her labia majora were grossly inflamed, reddish and markedly swollen. Multiple small sinuses of around 5mm were seen in labia majora and minora bilaterally from which live maggots were seen coming out. There was no bleeding/discharge. The maggots were removed manually with plain forceps in the operation theatre. The sinuses were irrigated with normal saline followed by a mixture of turpentine oil and liquid paraffin. Broad spectrum antibiotic coverage was prescribed to prevent secondary bacterial infection.



Figure 1. Multiple openings in labia majora.

Correspondence: Dr. Deepak Shrestha, Department of Obstetrics and Gynecology, Tribhuvan University Teaching Hospital, Kathmandu, Nepal. Email : thecups814@gmail.com, Phone: 9843225408.

Subsequent daily dressing of the wound done with the same solution led to the clearance of the maggots completely by 3rd day. An in-hospital psychiatric evaluation revealed mild mental retardation in her. She was however completely capable of taking care of her personal hygiene. No residual openings or maggots were noted on vulval examination at the time of her discharge.

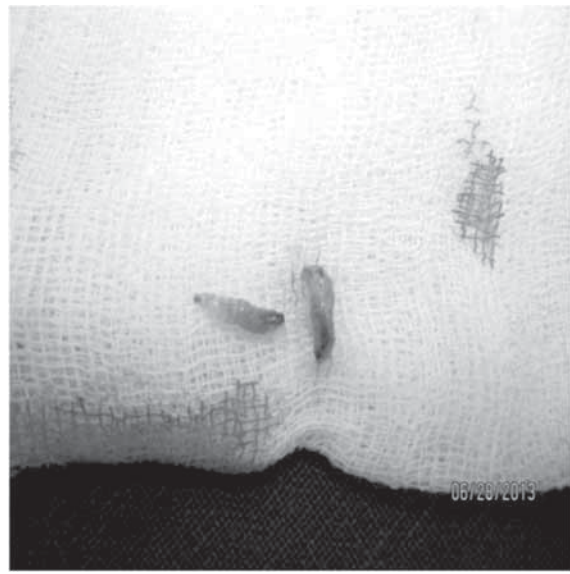


Figure 2. Live maggots after removal.

CASE 2

A 68 years postmenopausal lady presented to the emergency room with the complaints of pain in the vulval lesion for one week and bleeding from the same for one day. She was a known case of vulval carcinoma (moderately differentiated squamous cell carcinoma, TNM: T1bNxMx) who had undergone primary radiotherapy and 6 cycles of chemotherapy 4 years back in Bir Hospital followed by wide local resection of the small residual tumor in TUTH 3 years back. She then developed recurrence few months back and had visited Bharatpur Cancer Hospital where she took an incomplete course of radiotherapy. Following that she developed sudden onset severe pain in the ulcer associated with multiple episodes of vomiting. Fresh bleeding from the ulcer started from the previous day necessitating a change of several pads. There was no abnormal PV discharge or fever however.

On examination, the thin built lady looked pale and very ill. Vulval inspection showed a fungating ulcerative growth involving the whole vulva, measuring around 15x12 cm with active bleeding. Multiple small openings were present in the foul smelling necrotic tissue from where multiple live maggots were coming out. Per speculum

examination showed a normal cervix and bimanual examination revealed an atrophied uterus.

She was transfused a pint of whole blood. The wound was irrigated with normal saline and as many maggots as possible were removed with forceps in the dressing room. The wound was then dressed daily with petroleum jelly and debridement done on a scheduled day in operation theatre. No maggots were isolated after 10 days of treatment. She was finally discharged on oral medications and referred to Hospice centre for palliative care of the recurrent vulval carcinoma.

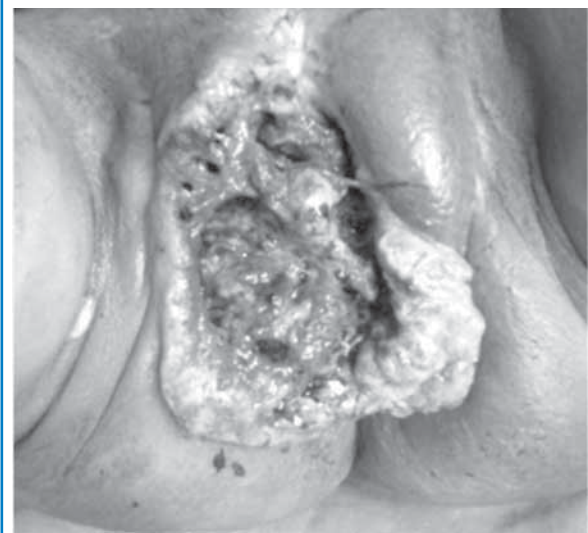


Figure 3. The necrotic ulcerative growth with maggots.



Figure 4. Wound following debridement in OT.

DISCUSSION

Myiasis is a parasitic disease of humans and vertebrates caused by larvae of more than 50 fly species. It is usually associated with poor personal hygiene, immobility in bed ridden patients, urinary incontinence/obstruction and ulcerating lesions.³

Genitourinary myiasis is uncommon compared to other sites like scalp, face, ear, eyes and other exposed surfaces. Genital myiasis has been reported in very few cases. In males it has been reported in gangrenous scrotum and penis and in ulcerative and fistulous genitourinary lesions against a backdrop of cancer, poor hygiene and care and alcoholism.⁴ In females, vulval myiasis has been reported with genital warts, impregnant women and in women with poor hygiene and HIV positive status.^{5,6} Other genital sites have been 3 cases of myiasis in prolapsed uterus.^{7,8} Myiasis in vulvar malignancy has not been reported as was found in this case. Like in this case vulvar myiasis in young girl with no obvious risk factor except for lack of hygiene has been reported from India.⁹

The two cases presented here represent different risk factor profiles in two extremes of age. No significant risk factor was identified in the first case except for mild mental retardation which didn't handicap her personal care taking ability per se. On the other hand, the presence of fungating malignant growth, restricted mobility and poor hygiene had demonstrably predisposed to the development of myiasis in our second case. Other risk factors associated with genital myiasis in female has been lack of personal care, alcoholism, HIV, STD, ulcerative prolapsed uterus and genital warts.⁵⁻⁷

No single management plan has been outlined for urogenital myiasis in the literature. But basically, the management involves removal of the larvae, meticulous irrigation and dressing of the wounds with the use of anti larval chemicals.

Simple use of digital pressure on both sides of lesion and removal of larvae by forceps is quite useful. Surgical removal can sometimes result in damage to larva with retention of larval fragments in the wound leading to allergic complications.¹⁰ The commonly used antilarval

chemicals are turpentine oil, mixture of turpentine oil and liquid paraffin or chloroform, petroleum jelly or beeswax. They can be applied directly on the opening of the sinus or after soaking in a pad. This will asphyxiate the larvae and force them out of the openings. Adding a broad spectrum antibiotic helps to prevent secondary bacterial infections.

Vulvar myiasis can occur in a setting of malignancy and lack of personal hygiene. Management with removal of the larvae surgically and application of antilarval chemicals largely leads to a successful outcome.

REFERENCES

1. Radhakrishnan R, Srinivasan R, Krishnamoorthy K, Sabesan S, Pani SP. Myiasis in filarial lymphedema due to *Chrysomya bezziana*. *Natl Med J India*. 1994;7:117-8.
2. Sherman RA. Wound myiasis in urban and suburban United States. *Arch Intern Med*. 2000;160:2004-14.
3. Kersten RC, Shoukrey NM, Tabara KF. Orbital myiasis. *Ophthalmology* 1986;93:1228-32
4. Nagy V. Unusual presentation of the urogenital myiasis caused by *Lucilia sericata* (Diptera: Calliphoridae). *Ann Agric Environ Med*. 2012;19(4):802-4.
5. Dhawan J, Singh S, Gupta S. Insects are Crawling in My Genital Warts. *J Cutan AesthetSurg*. 2011;4:129-31.
6. Passos MR, Varella RQ, Tavares RR, Barreto NA, Santos CC, Pinheiro VM, et al. Vulval myiasis during pregnancy. *Infect Dis ObstetGynecol*. 2002;10:153-8.
7. Baidya J. A rare case of genital myiasis in a woman with genital prolapse and malignancy and review of the literature. *Ann Trop Med Public Health*. 2009;2:29-30.
8. Saldarriaga W, Herrera E, Castro D. Myiasis in uterine prolapsed, successful treatment. *Am J Obstet Gynecol*. 2011;205:e5-e6
9. Kataria U, Siwach S, Gupta S. Myiasis in female external genitalia. *Indian J Sex Transm Dis*. 2013;34(2): 129-31
10. Meinhardt W. Urogenital myiasis caused by scuttle Fly larvae (Diptera: Phoridae). *Br J Urol* 1989;64:547-8.