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Case Report

## A rare case of genital myiasis in genital prolapse

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### ABSTRACT

Genital myiasis is an infestation by fly larvae in genital organs, where they feed and develop as parasites. They can cause severe infection, inflammatory reaction and can be linked to psychiatric disturbances. Commonly cutaneous, ophthalmic, auricular and nasopharyngeal myiasis are seen, with genital myiasis being a rare condition. We reported a case of an 82-year-old postmenopausal female who presented with the complaint of intense pain in genital region. After clinical evaluation she was clinically diagnosed as a case of genital myiasis of prolapsed uterus. Myiasis of the genital organ is a rare clinical entity. Good personal hygiene and proper sanitary conditions are very crucial for prevention of myiasis.

**Keywords:** Genital myiasis, *Musca domestica*, Genitourinary prolapse

### INTRODUCTION

Myiasis is infestation of animals and human beings by dipterous larvae (maggots). Genital myiasis in human beings is a rare condition that is having a strong correlation with suboptimal sanitation and limited access to healthcare services. These dipterous larvae feed on the living and dead tissue of host and leads to severe inflammation, severe infection and can be linked to psychiatric disturbances. The factors related to an increased risk of infestation include poor sanitary conditions, mental health problems, which can be associated with self-neglect and poor hygienic practices, immunodeficiency, low socioeconomic status.<sup>1</sup>

Common complications of external genital myiasis are local destruction, invasion and secondary infections. The agents of external genital myiasis reported till now are *Cochliomyia hominivorax*, *Chrysomya bezziana*, *Wohlfahrtia magnifica* and *Dermatobia hominis*. The mechanism of infestation depends on species of fly. Symptomatology varies depending on the location and

genital myiasis is associated with tenderness and signs of inflammation.<sup>2</sup> Treatment depends on location and degree of infestation.

### CASE REPORT

We report the case of an 82-year-old postmenopausal widow female with hearing and vocational impairment presented to the hospital with complaints of extreme pain in genital area. She was mentally unsound. She did not respond to verbal commands. Her history of illness could not be elicited properly. She was having difficulty in walking alone because of her age related changes. She was not having any history of tuberculosis, diabetes and any other immune-compromised conditions like HIV/AIDS. No history of any trauma. History was obtained from the accompanied female (daughter-in-law). On general physical examination she was of poor built and nutrition. Her vitals were stable. She was having mild pallor and no lymphadenopathy. Her abdomen was soft and non-tender. Bowel sound were heard. On local examination there was third degree uterovaginal prolapse. There were ulcerated areas over the prolapsed mass with numerous live maggots

(Figure 1). These areas were covered with necrotic tissue. There was foul smelling discharge. The tissue surrounding the ulcerated areas was edematous. The prolapsed mass was irreducible. Uterine size could not be ascertained. The patient was admitted in the gynecology department. Her routine blood investigations sent. She was found moderately anemic and her total leucocyte count was 20,440 cells/cumm. Other investigations were within normal range. Her viral markers like HIV, VDRL, hepatitis B and C were found negative. Chest X-ray and ultrasonography of whole abdomen and pelvis did not reveal any abnormality. Culture and sensitivity of discharge from ulcerated area showed growth of *Escherichia coli*, which were found sensitive to 3<sup>rd</sup> generation of cephalosporins.

On the day of admission, patient was directly shifted to minor operation theatre, hundreds of live maggots were removed mechanically using non-toothed forceps, and the prolapsed part was irrigated with normal saline and the wound was cleaned with turpentine oil thereafter. She was catheterised. From second day onward there were few maggots over ulcerated areas and wound was irrigated with turpentine oil. Deep seated maggots would swarm up after irrigation and then washed by normal saline. Everyday, the wound was dressed with turpentine oil for a week. The prolapsed part was free of maggots at day 4<sup>th</sup>. She was treated conservatively with analgesics, antibiotics, high protein diet and injection iron sucrose started for anemia correction. Regular dressing of ulcerated prolapsed part started with magnesium sulfate, urea, sulphaacetamide sodium, proflavine (in glycerine base) ointment was started from 4<sup>th</sup> day of admission. A biopsy of ulcerated part was taken and found non-malignant. On day 10<sup>th</sup> prolapsed part was reducible and ulcerated part was healing gradually with intense nursing care and taking care of prevention of bed sores. After reducing the part daily tamponing was done with povidone-iodine solution and magnesium sulfate in glycerine base. After 21 days patient was planned for definitive surgery for uterovaginal prolapse.



**Figure 1: Maggots coming out of prolapsed uterus during examination. Some of the maggots removed with artery forceps.**

## DISCUSSION

Myiasis is an infestation by fly larva in organs and tissues of humans and other vertebrates in which they feed and develop as parasites.<sup>3</sup> Our patient belonged to middle socioeconomic status but she was less active because of her old age, widow, poor personal hygiene and unsound mind. She was not able to give proper history.

She might be having genital prolapse for many years. There was probability of long standing decubitus ulcer. She did not have habit of using under garments. She used to spent her most of the time in her bed. These were strong contributing factors for myiasis in our patient. There is similar case reporting of genital myiasis in prolapsed uterus where ulcer healed well with treatment.<sup>4</sup> There is also a report of associated squamous cell carcinoma of cervix.<sup>5</sup> This had presented as a necrotic ulcerated area in the prolapse which was infested with maggots.

The ulcer in our patient was not malignant. Probably because of friction or congestion ulcer had developed. And chronic exposure to external environment made it susceptible for maggots infestation. Turpentine oil created an anaerobic environment which caused the maggots to wriggle out.<sup>6</sup> The ulcer of our patient healed with regular dressing with turpentine oil and normal saline wash for 72 hours. And thereafter with povidone-iodine and magnesium sulfate, urea, sulfacetamide sodium, proflavine in glycerine base for 15 days.

The hygroscopic action of these dressing materials made the prolapsed mass reducible and then we started tamponing with the povidone-iodine. In our patient we did not need Ivermectin as vaginal mucosa was intact. We gave antibiotics and anti-inflammatory agents to our patient and she responded well.

Saldarriaga et al described the use of ivermectin for the first time to treat myiasis successfully. With improvement in personal hygiene and good nutrition, general condition of our patient improved as did the ulcer. And this enabled us to think of definitive surgery for the patient.

## CONCLUSION

Genital prolapse due to pelvic floor weakness in elderly leads to various mechanical and functional symptoms. Improving our understanding and by making awareness about the etiology of prolapse should help to direct the treatment including nonsurgical and surgical methods. Early detection of prolapse can prevent its various devastating complications to reduce both mortality and morbidity. Perineal hygiene and sanitation can prevent genital myiasis, which can be achieved with awareness in society.

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