

## Case Report

# A Case Report of Parasitic Bladder Infestation in Woman with Abnormal Uterine Bleeding

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**Abstract:** Detection of urinary parasites is a relatively rare and incidental finding. Chronic parasitic infections lead to a state of chronic inflammation and cytokine release which is also a risk for tumor cell development. It also causes anemia which makes a patient susceptible to infections and further morbidity. In this case, a woman presented with AUB-L with recurrent urticarial lesions leading to lichen simplex complex and severe anemia and patient on cystoscopic examination showed parasitic infestation of bladder.

**Keywords:** urinary parasites, Chronic parasitic infections, tumor cell development, cystoscopic examination.

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## INTRODUCTION

*Enterobius vermicularis* (also known as oxyuris, pinworm, and threadworm) is an intestinal nematode that can lead to an infestation in countries with temperate climates, has low pathogenicity and is often asymptomatic except for perianal itching. "The main cause of contamination is the oral ingestion of worm eggs by uninfected people. A worm becomes an adult in the intestine and, soon after copulation the male worm dies, the gravid female worm migrates to the rectum and perianal region and lays eggs at night. Pinworms extraintestinal are extremely rare, and the worm larvae can migrate primarily to invade the female genital tract (vagina, endometrium, myometrium, tuba uterine, ovary, and pelvic peritoneum) and even the male urinary tract (renal pelvis, prostate). Pinworm ova and larvae cervicovaginal smear may be seen and may cause salpingitis, endometritis, pelvic abscess, and generalized peritonitis.

A limited number of enterobiasis infestations in the female reproductive system have been described in the literature. We present a case of *Enterobius vermicularis* infestation as a result of endometrial sampling in a 42-year-old woman with dysfunctional uterine bleeding.

## CASE REPORT

A 42 yr old parous woman presented to the Department of OBG, with complaints of heavy and frequent menstrual bleeding on and off since 4 years along with generalized fatigue and palpitations along with itching all over body. Patient gave history of pond bathing since childhood. Patient had received treatment earlier outside in view of similar complaints and USG findings showed a bulky uterus with a progressive increase in size of an uterine fibroid. All routine investigations were done and reports suggested microcytic hypochromic anemia (Hb-7g/dl) with eosinophilia and urine routine showed 7-8 RBCs. Patient also was diagnosed with simplex lichen complex. Pipelle endometrial sampling suggested endometrial hyperplasia with atypia. MRI pelvis showed bulky uterus of size 7.6\*10.4\*6.3 cm with a well defined lesion within the endometrial cavity of size 4.5\*5.1\*6.0 cm suggestive of submucosal fibroid. A multi cystic lesion in the right para urethral region suggested the presence of skene duct cyst.

Anemia correction was done by transfusing 3 units of PRBC and the patient underwent total abdominal hysterectomy with bilateral salpingo-oophorectomy along with cystoscopy. Cystoscopy

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revealed worm-like parasites in the bladder of approx size 6mm with no other significant lesion.

HPE report for TAH with BSO revealed endometrial hyperplasia with tiny focus of atypia with intramural leiomyoma with myxoid degeneration and chronic cervicitis. Patient was treated with anti helminthics afterwards.

## DISCUSSION

Leiomyomas are caused in part by an immune milieu that is chronically inflammatory. In addition, the chronic inflammatory state increases estrogen which in turn may increase leiomyoma growth. Chronic inflammation is sustained by specific cytokines secreted by immune, undifferentiated, and tumor cells and seems to be exploited by tumor cells to escape the host immune system. Undifferentiated cells play a central role in the microenvironment and modulate the cellular functions of a variety of immune cells including B and T lymphocytes, natural killer cells, monocytes, and dendritic cells. Untreated parasitic infections are a cause for chronic inflammation and could also play a role in the same. Urinary parasitic infestation is one the uncommon sites and a routine analysis of urine for parasitic ova under microscope can be useful.

## CONCLUSION

In conclusion, the presence of an extraintestinal entero biasis infestation, which is very rare in the female genital tract, should be kept in the mind of the clinician for preventing unnecessary and aggressive surgical interventions and protecting female reproductive health by performing a simple endometrial sampling.

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