

# CASE REPORT

---

## REPEATED URETHRITIS DUE TO ENTEROBIUS VERMICULARIS-A CASE REPORT

Vimal Rathod, Sharmila Raut, Sanjay Rajaram More, Poonam Sharma, Vidya Nardele, Vaibhav Rajhans

1. Assistant Professor, Department of Microbiology, Dr. Shankarrao Chavan Government Medical College, Nanded.
2. Professor & Head, Department of Microbiology, Dr. Shankarrao Chavan Government Medical College, Nanded.
3. Associate Professor, Department of Microbiology, Dr. Shankarrao Chavan Government Medical College, Nanded.
4. Post Graduate Student, Department of Microbiology, Dr. Shankarrao Chavan Government Medical College, Nanded.
5. Post Graduate Student, Department of Microbiology, Dr. Shankarrao Chavan Government Medical College, Nanded.
6. Post Graduate Student, Department of Microbiology, Dr. Shankarrao Chavan Government Medical College, Nanded.

### CORRESPONDING AUTHOR

Vimal Rathod,  
Department of Microbiology,  
Dr. Shankarrao Chavan Government Medical College,  
Nanded- 431601  
E-mail: vimalrathod111@yahoo.co.in  
Ph: 0091 9421869303

**INTRODUCTION:** Enterobius vermicularis is an intestinal nematode of humans and its principal mode of transmission is direct contact between infected and uninfected persons. Human infections occur when the eggs in the infective stage are accidentally ingested in a contaminated environment. Although the majority of infections are asymptomatic, adults usually have low worm burden and are asymptomatic. Ectopic infections in the pelvic area or urinary tract rarely occur in women. However, in children, particularly when there are heavy worm burden neurological symptoms such as nervousness, restlessness, irritability and distraction may occur and these may influence child growth [1]. Rarely ectopic infections in the pelvic area or urinary tract are reported [2,3]. Here we are reporting a rare case of repeated urethritis in four years old girl due to Enterobius vermicularis even after treating with antihelminthic drugs.

**A CASE PRESENTATION:** A four year old girl attended the Outpatient Department of Dr. Shankarrao Chavan Government Medical College Nanded on 14<sup>th</sup> December 2012 for evaluation of repeated urethritis. Patient complained of local irritation, pain and itching sensation in the periurethral region during night. On examination her general condition was fair, but she was nervous. Clinically she was diagnosed as vulvovaginitis and urethritis with worm infestations. Her mother gave history of irritation, pain, redness and itching in peri- urethral region of girl during night hours. She observed and removed small, white, motile thread like worm from periurethral region. Each time removal of worm relieved all symptoms and she became comfortable. Such episodes occurred four times at three months of interval. After every episode she was given antihelminthic drugs like albendazole and mebendazole by physician. The recurrence was four times during last one year. Every episode, the urine culture was sterile and worm was recovered from the periurethral region.

# CASE REPORT

---

Here we are reporting case of recurrent *Enterobius vermicularis* infestation even after treatment.

This time extracted thread like structure was brought to laboratory for the examination. Microscopic examination shows 4mm long, white coloured worm, anterior end appendages resembling adult worm of *Enterobius vermicularis* (fig 1) and presence of non bile stained planoconvex eggs. Urine culture was done in the patient. No bacterial or fungal pathogen was isolated. The fresh swab from perianal region was taken. Wet preparation was made on slide, by putting saline drop and observed under microscope. It showed presence of large number of non bile stained planoconvex eggs of *Enterobius vermicularis* (fig.2). Her stool sample also revealed presence of adult worms. The stool examination and perianal swab of her siblings did not reveal any worm or egg of *Enterobius vermicularis*.

**DISCUSSION AND CONCLUSION:** *Enterobius vermicularis* is one of the most frequently encountered and ubiquitous nematode. It is highly contagious and parasitizes the human intestinal tract. The majority of human infections have been shown to occur in pre-school children and grade school children, particularly those who engage in group activity. It is known that the transmission of intestinal parasites depends on the presence of infected individuals, sanitation deficiencies and principally, the socioeconomic and cultural conditions of the population.[4] Among adults, *Enterobius vermicularis* infection is similar in both sexes, but it was commonly observed that many adults did not get infected even when subjected to contaminated environments due to personal hygiene [5]. Normally after a nocturnal egg laying excursion, the gravid female worms either die or return through the anus to their proper intestinal habitat. Occasionally, they lose their way and enter the vagina. They may then ascend to the genital tract.[4]

In our case due to heavy worm load and unhygienic sanitation, adult gravid female worm may have lost its way and tried to enter in to urethral opening leading to irritation, itching and pain.

Effective antihelminthic regimens have been developed and used for decades. The control of Enterobiasis is difficult due to frequent recurrences and a short life cycle. Therefore, continuous health education concerning improvement of personal hygiene and regular inspections are required to control enterobiasis.[4]

## REFERENCES:

1. Kang S, Jeon HK, Eom KS, Parl JK: Egg positive rate of *Enterobius vermicularis* among preschool children in Cheongju, Chungcheongbuk-do, Korea. *Korean J Parasitol* 2006,44(3)247-249.
2. Song HJ, Cho CH, Kim JS, Choi MH, Hong ST: Prevalence and risk factors for enterobiasis among preschool children in a metropolitan city in Korea. *Parasitol Res* 2003, 91:46-50
3. Ok UZ, Ertan P, Limoncu E, Ece A, Ozbakkaloglu B: Relationship between pinworms and urinary tract infection in young girls. *APMIS (acta pathologica microbiologica et immunologica scandinavica)* 1999, 107:474-476.
4. Athanasios Zahariou, Maria Karamouti and Polyanthi Papaioannou: *Enterobius vermicularis* in the male urinary tract: a case report *Journal of Medical Case Reports* 2007, 1:137 doi:10.1186/1752-1947-1-137

## CASE REPORT

---

5. Pezzani B C, Minvielle C M, Luca de M, et. al. Enterobius vermicularis infection among population of General Mansilla, Argentina World J Gastroenterol 2004 September 1;10(17):2535-2539



Fig- 1. Adult worm of Enterobius vermicularis removed from periurethral region.



Fig- 2. Perianal swab showing non bile stained planoconvex eggs of Enterobius vermicularis.