

Enterobius vermicularis

Summary

- Cosmopolitan distribution
- Humans are the reservoir of this 1 cm long worm
- Ileocaecal region -> Anal region: anal itch

Life cycle

This parasite is cosmopolitan. There is no intermediate host. Infection is via ingestion of eggs e.g. by eating food touched by contaminated hands or by handling contaminated clothes or bed linens. Eggs accumulate in the ileo-caecal region. After copulation the males die. The females migrate via the colon to the anus and lay their eggs chiefly at night as they creep over the peri-anal skin. This explains the nightly itching. Self-infection occurs by transferring infective eggs to the mouth with hands that have scratched the perianal area. Retro-infection or the migration of newly hatched larvae from the anal skin back into the rectum, may also occur. In rare cases there is vaginal itch because the females can also hide there. Sometimes the parasites are found in the appendix. The eggs must be sought not only in the faeces, but also on the peri-anal skin (using Scotch tape or other transparent sticky tape). In women the eggs may be found in the urine due to contamination. Apart from the itch there are few problems. There is a possible association between infection with *Enterobius* and infection with the possibly pathogenic amoeba flagellate, *Dientamoeba fragilis*. A hypothesis is that *Enterobius vermicularis* serves as a vector for *D. fragilis*, as *D. fragilis* DNA has been detected within surface-sterilized eggs of *E. vermicularis*.

Treatment

- Mebendazole 100 mg (Vermox®), to be repeated after 1 and 2 weeks. Albendazole is also effective.
- Ivermectin 12 mg single dose, to repeat after 2 weeks
- Pyrantel pamoate 10 mg/kg base once (max. 1 g); to repeat in 2 weeks
- Vanquin® (pyrvinium) may also be used as an alternative to mebendazole. The faeces

may discolour red.

Since the eggs can adhere to all objects e.g. underclothing, sheets and so on, these should be changed. In a family it is best to treat all the family members, even those without symptoms.

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