

## TEACHING FILES (GRAND ROUNDS)

# RECURRENT PINWORM INFESTATION

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### KEYWORDS

Recurrent infections, Pinworms, Pulse scheme

### Clinical Problem

A 6-year-old boy presented with passing recurrent worms in the stool for three years for which he had been treated with multiple courses of anthelmintics in form of albendazole and mebendazole.

Additionally, he also had severe itching in the anal region. His mother and sister also had been passing worms in their stools for 3 years which were unresponsive to medication. On examination, the boy's weight was 20 kg. Systemic examination was normal. Routine stool examination shows the presence of *Enterobius Vermicularis* (pinworms).

*What will be the best course of management for this patient and his family?*

### Discussion

*Enterobius vermicularis*, also known as pinworm, is a white threadlike worm that primarily infects the cecum and surrounding bowel. Symptoms can range from being asymptomatic to having anal pruritus, agitation and impaired sleep. When adult worms are seen in the perianal region, an infection with *E. vermicularis* is diagnosed.<sup>1</sup> The main medication used to treat pinworms was mebendazole (100 mg PO as a single dose). In the absence of mebendazole, albendazole (400 mg) or pyrantel pamoate (11 mg (base)/kg PO) should be administered as a single dose and repeated after two weeks to treat pinworm infections.<sup>2</sup>

In the case of chronic recurrent infection, treating all (including asymptomatic) members of a household at the same time has proven to be a successful strategy. In addition, prolonged treatment for up to 16 weeks (a "pulse scheme") is recommended for recurrent infections.<sup>1</sup>

Furthermore, personal and group hygiene must be improved; people must wash their hands before eating, and children should be discouraged from engaging in activities like finger-sucking.

The continued use of anthelmintics poses a significant risk of resistance development. To overcome the risk of resistance, new anti-pinworm drugs are required. The new drugs that show some promising results are three

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novel coumarin-based trisubstituted methanes (TRSMs) but this study has been restricted to mice and hasn't been extrapolated to humans.<sup>3</sup>

In our patient, the entire family was treated with fortnightly albendazole for 6 months. The child is on regular follow-up. On his last follow-up after 3 months, he was still passing worms in stools but the frequency had decreased significantly.

### Compliance with Ethical Standards

Funding: None

Conflict of Interest: None

### References :

1. Wendt S, Trawinski H, Schubert S, Rodloff AC, Mössner J, Lübbert C. The Diagnosis and Treatment of Pinworm Infection. *Dtsch Arztebl Int.* 2019 Mar 29;116(13):213-9.
2. Lloyd AE, Honey BL, John BM, Condren M. Treatment Options and Considerations for Intestinal Helminthic Infections. *J Pharm Technol.* 2014/04/28 ed. 2014 Aug;30(4):130-9.
3. Dhar E, Yadav A, Basumatary G, Bez G. Anti-pinworm activity of novel coumarin-based trisubstituted methanes in *Syphacia obvelata*-infected mice. *Parasitology International.* 2021 Jul 1;85:102425

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