CASE REPORTS

Whipworm Dysentery in an Adult
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Abstract
A twenty year old female patient presented with severe dysentery and anaemia. Her stool examination did not show any pathogenic micro-organisms nor E histolytica but only T trichiura. Empirical amoebicidal therapy did not result in the relief of symptoms. Colonoscopy revealed heavy Trichuris trichiura infestation with bleeding. Histology confirmed that there was no associated colonic disease such as ulcerative colitis.

Key words: Trichuris trichiura dysentery

Introduction
Whipworm (Trichuris trichiura) is a nematode with a worldwide distribution which is most frequently encountered in the tropics. The adult worms are shaped like a whip with a hair like anterior end and a stouter posterior end. They inhabit the entire large bowel particularly the cæcum and burrow their anterior ends underneath the mucosa of the bowel of the host. Each worm extracts 0.005 ml of blood from the host each day.1

Most infections are symptomless but there may be vague abdominal pain and diarrhoea.2 In undernourished children, heavy infestations may cause bloody diarrhoea, anaemia, volvulus and prolapse of the rectum.5 6 Though many studies of heavy whipworm infestations in adults have been published from India, there have been no reported cases of whipworm dysentery in an adult.3 6

Case Report
L.B., a female patient aged 20 years, a slum dweller presented with a history of loose motions and generalised abdominal pain for 2 months. Ten days before admission, the character of the stools changed. She started passing faeces admixed with bright red blood, and the quantity of blood loss increased day by day. There was no mucus in the stools. The frequency of stools on admission was 12 per day.

On examination, the patient was pale, poorly nourished and had a dry tongue. Temperature and blood pressure were normal. Pulse was 90 per minute. Abdominal examination revealed no organomegaly or local tenderness. Other systemic examination was also normal.

Investigations: Revealed HB—5 g/dl; WBC—15,000/mm³; polymorphs 90%; lymphocytes 10%; ESR was 60 mm 1st hour; Stool examination on the day of admission showed plenty of RBCs, very few pus cells and no motile forms or cysts of E histolytica. Second stool examination after 5 days showed one of T trichiura.

Treatment: Although her initial stool examination did not reveal infection by E histolytica, she was empirically administered 1 2 g metronidazole daily for 5 days. She did not show any response to the treatment. Although the second stool examination showed T trichiura infestation, this was not initially considered as the cause of her dysentery. In order to reach an accurate diagnosis as well as to obtain target biopsies, colonoscopy was performed.

Colonoscopy: The entire mucosa of the colon from the rectum to the splenic flexure was occupied by whipworms. The worms formed multiple clusters, in the form of rosettes, around a central bleeding point. Blood was seen to ooze freely from the centre of the rosettes. There was no mucus or pus in the colon. Punch biopsies were taken from these bleeding points.

Histopathology: Biopsies showed superficial ulceration with non-specific mixed inflammatory infiltrate in lamina propria. Parts of adult worms could be seen (in cross section) within the mucous membrane (Figs 1 and 2).

Fig 1: Photomicrograph showing adult worm (arrow) in cross-section and inflammatory exudate in the mucosa. (H & E × 100)

Fig 2: Photomicrograph showing cross section of female worm and gravid uterus containing ova. (H & E × 100)
Final diagnosis: Whipworm dysentery.

Course and outcome: The patient was treated with mebendazole, 100 mg twice a day for 3 days. The patient responded favourably and the number of stools decreased and the bleeding stopped.

Eight days after treatment, colonoscopy was repeated. A few worms were still seen in the lumen of sigmoid colon but the number had markedly decreased and only a few bleeding points were observed.

The patient was discharged with an advice to take a second course of mebendazole.

Discussion

Whipworm dysentery occurs in malnourished children in whom it also causes rectal prolapse. The mucosa of the prolapsed rectum may be seen to be completely covered over by whipworms giving it a "coconut cake" appearance. Such a picture has not been reported in adult Indian. In fact, Laysine et al specifically mention that blood loss does not occur in adults as severe infections are not seen.

Whenever poorly nourished adults coming from lower socio-economic groups present to a public hospital, they are first labelled as suffering from amoebic dysentery. Repeated negative stool examination then raises the possibility of "ulcerative colitis". This case is reported to bring home the fact that heavy infestation by _Trichuris trichiura_ can result in severe dysentery even in adults.

References


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**ZIL**

* TINIDAZOLE

**Exhibits inherent superiority over metronidazole**

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<th>CONDITION</th>
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<td>Swami B, et al.</td>
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<td>86.0%</td>
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238 INDIAN J GASTROENTEROL Vol 3 No 4 OCTOBER 1984

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