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Image

Rare trematode infestation in irritable bowel syndrome: Pathogen or commensal?

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Abstract

A healthy young adult male presented with complaints of frequent (>3/day) formed stools and passage of excessive mucous in stool for 3 months. He did not complain of nocturnal motions, recent diarrhea, blood in stool, straining, weight loss, or pain abdomen. Stool test was normal. He was counseled and treated as a case of irritable bowel syndrome. Due to inadequate relief with empirical therapy, colonoscopy was performed in a subsequent visit. Club-shaped small, round organisms with moving proboscis were seen in the cecum. Organism was later identified as a trematode *Gastrodiscoides hominis*, a rare foodborne trematode. The patient was treated with praziquantel, without complete relief. Trematode infection might not be the cause of symptoms.

Key words Gastrodiscoides hominis, irritable bowel syndrome, praziquantel, trematode

A healthy young adult male patient presented with frequent but formed motions and excess of mucous in stool for 3 months. He did not give history of recent diarrhea, blood in stool, straining, weight loss, or pain abdomen. He was reassured regarding benign and prevalent nature of his complaint and advised mild antispasmodic. Although symptoms improved marginally, he continued to pass excessive mucous. Stool examination was negative for ova, cyst, and red blood cell and contained excess of mucous clumps. He was advised to undergo colonoscopy to exclude organic pathology, considering anxiety of the patient. Colonic mucosa was normal up to terminal ileum. Multiple club-shaped organisms, 8–10 mm in size, with a circular body and mobile proboscis were seen in the cecum of colon [Figure 1]. Proboscises which were later identified as suckers were actively stretched more than twice the body diameter. Organisms were collected in saline and formalin separately. It was later identified as *Gastrodiscoides hominis*, an intestinal fluke. The patient was treated with praziquantel; he did not seem to respond clinically. He refused repeat colonoscopy and was lost to follow-up.

Trematodes or flukes as these are commonly called enter human body through food or skin. Trematodes are unsegmented thick leaf-shaped worms that are slightly flattened dorsoventrally; they bear 2 suckers, one in ventral aspect of body and other on the proboscis, which serve as organs of attachment [Figure 2]. Human intestine is infected when metacercariae (encysted form residing inside snail body) is ingested with freshwater aquatic plants. *Gastrodiscoides hominis* is an intestinal fluke. Cercaria (the free-swimming infective form) may penetrate skin to infect blood vessels (e.g., schistosomiasis), liver (e.g., fascioliasis), pancreas (e.g., eurytrema pancreaticum), and lung (e.g., paragonimiasis).[1]

Exact burden of intestinal flukes in human population is not known.[2] A few case reports of human infestation are available outside Southeast Asia.[3-5] It has been reported mostly from Assam in India or from Southeast Asian countries because

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Figure 1: *Gastrodiscoides hominis* in cecum

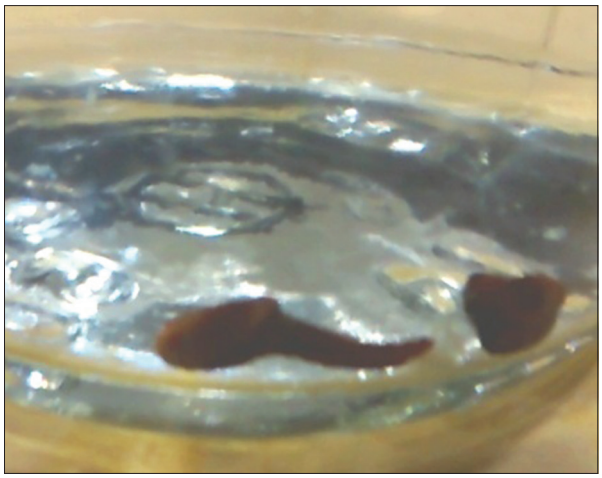

Figure 2: *Gastrodiscoides hominis* with extended sucker in saline

of prevalent aquaculture in these regions. Humans and domestic animals are definitive hosts, and freshwater snails are intermediate host. Infection is frequently asymptomatic. Diarrhea and abdominal pain are common symptoms for intestinal flukes.

Praziquantel remains the drug of choice for all trematode infections, except fascioliasis, for which bithionol is the drug of choice.[1] Triclabendazole is an alternative in case patient is allergic to praziquantel.

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Conflicts of interest

There are no conflicts of interest.

References

1. Graczyk TK, Fried B. Human waterborne trematode and protozoan infections. Adv Parasitol 2007;64:111-60.
2. WHO Initiative to Estimate the Global Burden of Foodborne Diseases. First Formal Meeting of the Foodborne Disease Burden Epidemiology Reference Group (FERG). Geneva; 26-28 November, 2007. Available from: http://www.who.int/foodsafety/publications/foodborne_disease/burden_nov07/en.
3. Kumar V. The digenetic trematodes, *Fasciolopsis buski*, *Gastrodiscoides hominis* and *Artyfechinostomum malayanum*, as zoonotic infections in South Asian countries. Ann Soc Belg Med Trop 1980;60:331-9.
4. Gupte A, Shah C, Koticha A, Shukla A, Kuyare S, Bhatia S. *Gastrodiscoides hominis* infestation of colon: Endoscopic appearance. Gastrointest Endosc 2014;79:549-50.
5. Dada-Adegbola HO, Falade CO, Oluwatoba OA, Abiodun OO. *Gastrodiscoides hominis* infection in a Nigerian-case report. West Afr J Med 2004;23:185-6.