

Schistosomal Proctitis

by Muhammad Afzal, Wajiha Sufyan

A 42 year old male expatriate from Yemen was referred to the gastroenterology outpatient clinic with a six-month history of intermittent rectal bleeding. He had daily bowel movements but noted occasional rectal bleeding. There was no history of diarrhea, abdominal pain, weight loss or fever. His physical examination was unremarkable and baseline laboratory investigations were normal. Colonoscopy revealed a 5-6 mm sessile polyp in the rectum with surrounding inflammation marked by erythema and loss of vasculature (Figure 1). The remainder of the examination to the terminal ileum was normal. The polyp was removed using a biopsy forceps without any complications.

Histology showed colonic mucosa with mixed inflammatory cell infiltrate, composed of plasma cells and eosinophils surrounding the crypts in the lamina propria (Figure 2). An egg of *Schistosoma mansoni*, with tapered anterior end and lateral spine near the posterior end, was also seen. This is shown at higher magnification in Figure 3. Schistosomal proctitis was diagnosed and was subsequently treated with praziquantel.

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Figure 1. Rectal polyp seen on retroflexion

Schistosomiasis is a trematode infection caused by blood fluke, *Schistosoma*, which is endemic to many parts of Africa, Asia and South America. It affects 200 million people worldwide and causes 200,000 deaths each year.¹ Studies have shown that its prevalence is increasing in Europe and the United States due to an increasing number of travelers and immigrants to and from these areas.² Infection in humans, the definitive host, is due to contact with fresh water snails, which act as intermediary host. There are three major species of *Schistosomas* that infect humans: *S. haematobium*,

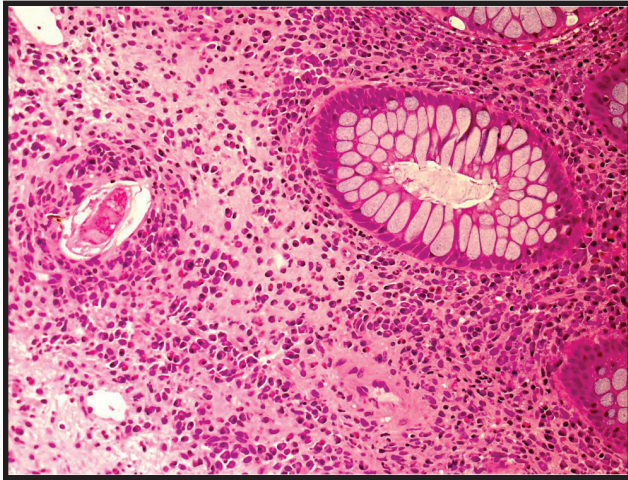


Figure 2. Hematoxylin and Eosin stained rectal biopsy (X200)

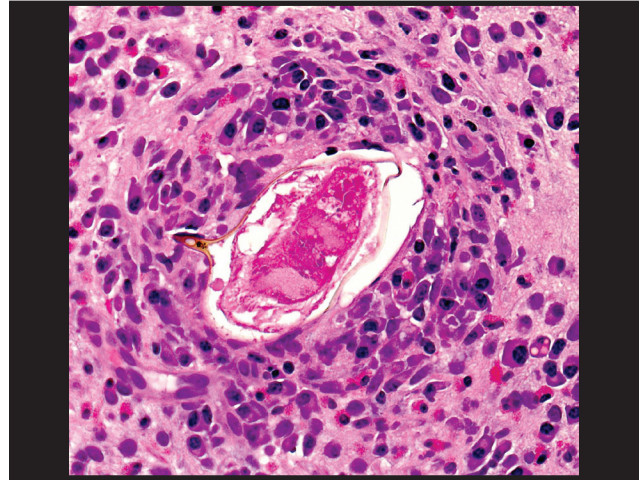


Figure 3. Higher magnification (X400) of Figure 2 showing the Schistosomal egg

S. mansoni and *S. japonicum*. *S. haematobium* is associated with urogenital pathology while *S. mansoni* and *S. japonicum* cause intestinal and hepatic infection. *S. mansoni*, the main colonic pathogen, resides in the mesenteric veins around the colon where it produces large number of eggs. Some of the eggs make their way to colonic lumen and are cleared in the stool. Others get deposited in the colonic mucosa causing ulceration and polyp formation due to cell mediated immune response and granulomatous reaction. This in turn leads to the main symptoms of colonic schistosomiasis i.e. abdominal pain, bloody diarrhea and tenesmus.³ Colonic schistosomiasis can be diagnosed by finding eggs in stools in acute cases or in tissue biopsies in chronic cases where egg excretion is scant. Schistosomal polyps are seen mainly in patients from endemic areas with chronic disease. The rectum is the preferred site for these polyps but they have been reported in the sigmoid and transverse colon as well.⁴ Treatment of schistosomiasis is with the antibiotic Praziquantel, with the usual dose of 40-60mg/Kg in divided doses.

Gastroenterologists and primary care physicians should keep Schistosomiasis in mind as one of the possible etiologies when evaluating patients with colorectal symptoms and exposure to endemic areas. ■

References

1. Elliott D E. Schistosomiasis: Pathophysiology, diagnosis, and treatment. *Gastroenterol Clin North Am* 1996;25:599–625
2. Whitty CJ, Mabey DC, Armstrong M, Wright SG, Chiodini PL. Presentation and outcome of 1107 cases of schistosomiasis from Africa diagnosed in a non-endemic country. *Trans R Soc Trop Med Hyg* 2000; 94: 531-534
3. Schafer TW, Hale BR. Gastrointestinal complications of schistosomiasis. *Curr Gastroenterol Rep* 2001; 3: 293-303
4. Lin CT, Chen CY, Jao SW, Wu CC. *Endoscopy* 2010;42 Suppl 2:E160. doi: 10.1055/s-0029-1244142. Epub 2010 Jun 16



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