A 29-Year-Old Immigrant With Chronic Diarrhea

(See page 711 for the Photo Quiz.)

Diagnosis: Schistosomal colitis.

The biopsy shows intact colonic mucosa with multiple schistosomal ova in the submucosa, some of which are surrounded by granulomatous inflammation [Figures 1 and 2]. Repeated stool testing revealed parasite ova with a lateral spine that are consistent with *Schistosoma mansoni*. The patient was treated with a 2-dose course of praziquantel at 20 mg/kg/dose with complete resolution of symptoms on follow-up visits.

Schistosomiasis is a trematode parasitic infection that affects millions of people worldwide [1]. Five species with a wide geographic distribution cause infection in humans [2]. The distribution of the species depends mainly on the ecology of the snail host [2]. *Schistosoma mansoni* causes intestinal and hepatic schistosomiasis and is endemic in Africa, the Arabian Peninsula, and in parts of Brazil, Venezuela, and the Caribbean. *Schistosoma haematobium* causes urinary schistosomiasis and is endemic in Africa and the Arabian Peninsula. *Schistosoma japonicum* causes intestinal and hepatic schistosomiasis in China, the Philippines, and Indonesia [3]. Yemen is the country with the second highest prevalence of schistosomiasis in the Middle East and North Africa region, with an estimated 2.9 million cases [4]. *Schistosoma mansoni* is the fifth most common intestinal parasitic infection in Yemen, following *Giardia duodenalis*, *Entamoeba histolytica/dispar*, *Cryptosporidium*, and *Ascaris lumbricoides* [5].

The diagnosis of schistosomiasis requires the identification of the parasite ova with its characteristic size, shape, and lateral or terminal spine in the stool or urine [6]. As many as 3 specimens might be needed to make a diagnosis in some patients [6]. This is due to the fact that ova shedding is variable when it occurs after approximately 2 months of infectivity. The ova can also be identified upon a biopsy of bladder or intestinal tissue. Specific and highly sensitive polymerase chain reaction (PCR)–based assays have been developed for the detection of the parasite DNA in feces, urine, or serum [7, 8]. Serologic testing is available but has limited sensitivity and specificity [9, 10]. Furthermore, the test cannot be used in immigrants from endemic areas or previously treated individuals [9]. PCR-based assays and serologic testing have the capacity to diagnose schistosomiasis in all phases of disease including Katayama fever well before eggs are excreted into stool or urine.

**Figure 1.** A colonic biopsy showing cells stained with hematoxylin and eosin that exhibit submucosal parasitic ova at longitudinal and cross-sections (white arrows). The black arrow points to the surface mucosa (original magnification, ×10).

**Figure 2.** Parasitic ovum surrounded by granulomatous inflammation (white arrow; original magnification, ×20).
Praziquantel is the treatment of choice for schistosomiasis because it cures up to 90% of cases [11, 12]. Patients who continue to shed viable ova will respond to retreatment with praziquantel 4–6 weeks later [6]. The effective dose of praziquantel is 60 mg/kg orally in divided doses over 1 day for *S. japonicum* and *Schistosoma mekongi*, and 40 mg/kg orally in divided doses over 1 day for *S. mansoni*, *S. haematobium*, and *Schistosoma intercalatum*.

**Note**

**Potential conflicts of interest.** Both authors: No reported conflicts.

Both authors have submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Conflicts that the editors consider relevant to the content of the manuscript have been disclosed.

Satish Bagdure¹ and Faisal A. Khasawneh²

¹Department of Internal Medicine, and ²Section of Infectious Diseases, Department of Internal Medicine, Texas Tech University Health Sciences Center, Amarillo

**References**


Correspondence: Faisal A. Khasawneh, MD, Section of Infectious Diseases, Dept of Internal Medicine, Texas Tech University Health Sciences Center, 1400 S Coulter St, Amarillo, TX 79106 (faisal.khasawneh@ttuhsc.edu).

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