A 54 year old male with colon polyp on screening colonoscopy.

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Special Interest: Surgical pathology and Cytopathology

Case report

A 54-year-old asymptomatic male presented for routine screening colonoscopy. A 5-mm cecal polyp and two 2–7 mm transverse colon polyps were found. Colonoscopic polypectomy was successfully performed with hot snare.

Microscopic examination

On histologic examination, the cecal polyp was found to be a tubular adenoma. The transverse colon polyps showed a normal colonic surface mucosa with submucosal collections of dead oval eggs surrounded by fibrosis and scattered mixed inflammatory cells in lamina propria (Figure A–C). Mixed inflammatory cells were composed of lymphocytes, eosinophils and plasma cells. Rare multinucleated giant cells were also present. Some Schistosomal eggs were calcified (Figure B). The eggs measured 110–175 µm × 45–70 µm (Figure C). Very rare eggs demonstrated definite lateral spines (Figure C, D), consistent with *Schistosoma mansoni*.
Final diagnosis

A colon polyp associated with schistosomiasis

Discussion

Schistosomiasis is one of the most important parasitic diseases in tropical areas worldwide. Three commonly encountered schistosome species, *S. mansoni*, *S. haematobium*, and *S. japonicum*, cause the majority of human infections. *S. mansoni* is the most widespread human-infecting schistosome, and is present in Africa, South America, and the Caribbean.¹

The life cycle of schistosomia requires both intermediate and definitive hosts: snails and humans. Humans acquire schistosomiasis by contacting cercarial larvae contaminated water. Infective form Cercariae penetrate the human skin and then enter into circulation, and migrate to the portal venous system where they develop into *Schistosoma* adults. Adult schistosomes remain in the blood vessels. They do not replicate within the host and cause little damage.¹ However, they mature to produce eggs, which can travel hematogenously to other sites or invade into host tissue. Inflammation and granuloma formation can occur around deposited eggs, leading to fibrosis and scarring of the affect tissues when the eggs die and eventually disintegrate.²,³
Most patients infected with *S. mansoni* are asymptomatic. Acute infections may present with itch or fever due to localized dermatitis at the site of larval entry or hypersensitivity reaction against migrating parasites. Chronic infectious symptoms are related to the number of eggs trapped in tissue, locations, and the duration of infection.

It can include intestinal, liver, neurologic and pulmonary disease. Patients with intestinal schistosomiasis caused by *S. mansoni* can have abdominal pain and bloody diarrhea. Intestinal polyps, ulcers, and strictures can also develop. Rarely, an inflammatory mass can lead to obstructions, simulating carcinoma. Hepatosplenomegaly, cirrhosis, and ascites are late stage *S. mansoni* infections.1-4

The diagnosis of infection can be made by the identification of characteristic eggs in stools or tissue biopsy.1-4 As demonstrated in our colon polyp biopsy, *S. mansoni* ova are very large and elongated measuring 110–175 µm × 45–70 µm. The ova of *S. mansoni* possess a prominent lateral spine near the more-rounded posterior end; anterior end tends to be somewhat pointed and slightly curved.1,3,4 Immunodiagnostic techniques (blood serologic test) can be used to help establish diagnosis since the eggs tend to be passed intermittently and in small amounts.1
References


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Figure legends

Figure 1: Colonoscopy showed a transverse colon polyp (A) and post polypectomy site (B).

Figure 2: Histologic examination of transverse colon polyp associated with schistosomiasis showed a normal colonic surface mucosa with submucosal collections of oval eggs surrounded by fibrosis and scattered mixed inflammatory cells in lamina propria 40x (A). Some schistosomal eggs were calcified with rare multinucleated giant cells present 200x (B). Mixed inflammatory cells were composed of lymphocytes, eosinophils and plasma cells. The eggs measured 110–175 µm × 45–70 µm, 600x (C). Very rare eggs demonstrated definite lateral spines 600x (C, D), consistent with *Schistosoma mansoni*. 