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Schistosomiasis: Diagnosis by Colonoscopy

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A 69-year-old Liberian female with no significant past medical history was referred for screening colonoscopy. Notably, she immigrated from Liberia to the United States 7 years prior to presentation, since which time she has had regular primary care visits and has been asymptomatic. On presentation, she had a negative review of systems and her physical examination was normal.

Colonoscopic examination was notable for patchy areas of pale, nodular appearing mucosa in the transverse and descending colon with no features of polypoid tissue under narrow band imaging (Figure A). Targeted biopsies were obtained, the histology of which revealed numerous eggs of schistosome organisms (Figure B).

Subsequent laboratory testing revealed peripheral eosinophilia (1700/cm³) and thrombocytopenia (130,000/cm³). Serum hemoglobin, aminotransferases, human immunodeficiency virus (HIV) 1 and 2 antibodies, viral hepatitis serologies as well as urinalysis were all unremarkable. An abdominal sonogram was also normal. She was ultimately treated with Praziquantel 60mg/kg in 3 divided doses with good response.

Schistosomiasis is a common communicable disease endemic in Africa, the Middle East, Asia, and South America. Approximately 200 million are infected and 700 million are at risk of schistosomiasis. Colonic schistosomiasis comprises a small fraction of these cases.¹ Though the prevalence is unknown, the majority of infections are caused by *Schistosoma* species *mansoni*, *hematobium*, and *japonicum*.² Clinical manifestations and endoscopic findings of colonic schistosomiasis vary widely and reflect the host's immune response to deposition of schistosome eggs leading to granulomatous reaction in the colon as the disease progresses through the acute, chronic and advanced stages.²⁻⁴ Inflammation caused by colonic schistosomiasis has been suggested as a risk factor for colorectal cancer although the relationship has not been well established.^{4,5} Nonetheless, effective management requires an integrated approach of chemoprophylaxis, treatment, education and improved sanitation conditions in endemic areas.

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This case highlights a rare and often incidental finding discovered by colonoscopy in the US for which a high clinical suspicion (based on travel and migrant history) and histology ultimately led to the diagnosis.

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Figure 1.