

Atypical Presentation of Schistosomiasis Manifesting as a Large Rectal Mass

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DIAGNOSTIC FINDINGS / CLINICAL COURSE

BACKGROUND

- Schistosomiasis is a common parasitic illness affecting over 200 million people worldwide
- There is a higher prevalence in Sub-Saharan Africa, South America, and Eastern Asia [1]
- The parasite is carried by freshwater snails, which are not native to the United States, and transmit infection via contaminated water
- Migration and entrapment of Schistosoma eggs can give way to chronic infections involving the gastrointestinal tract leading to intestinal polyps or colorectal adenocarcinoma [2]

PATIENT PRESENTATION

86 year-old Asian-American male with chronic urinary retention and chronic anemia presented for bright red blood seen with stool in his underwear. Stool appeared brown without clots. Patient without abdominal pain, nausea, vomiting, diarrhea.

Vital Signs:

Vital signs were stable on admission.

Labs:

Initial hemoglobin of 10.1 g/dL (decreased from 11.1 g/dL five months prior) with an MCV of 89.8 fL. Platelets 199 x 10³ per mL. Ferritin 511 ng/mL, Transferrin sat 47% INR 1.0, BUN and creatinine within normal limits.

Tumor markers revealed CEA 1.6, PSA 322.97, CA 19-9 of 9.

PAST MEDICAL HISTORY

Medical History: Chronic urinary retention, chronic encephalopathy from stable intracerebral hemorrhages; bilateral frontoparietal hematomas and subdural hemorrhages, history of left MCA infarct

Surgical History: Appendectomy

Family History: Negative for colon cancer specifically in first degree relatives

Medications: Amlodipine, atorvastatin, finasteride, levetiracetam, metformin, terazosin

Endoscopic History: No prior colonoscopy performed

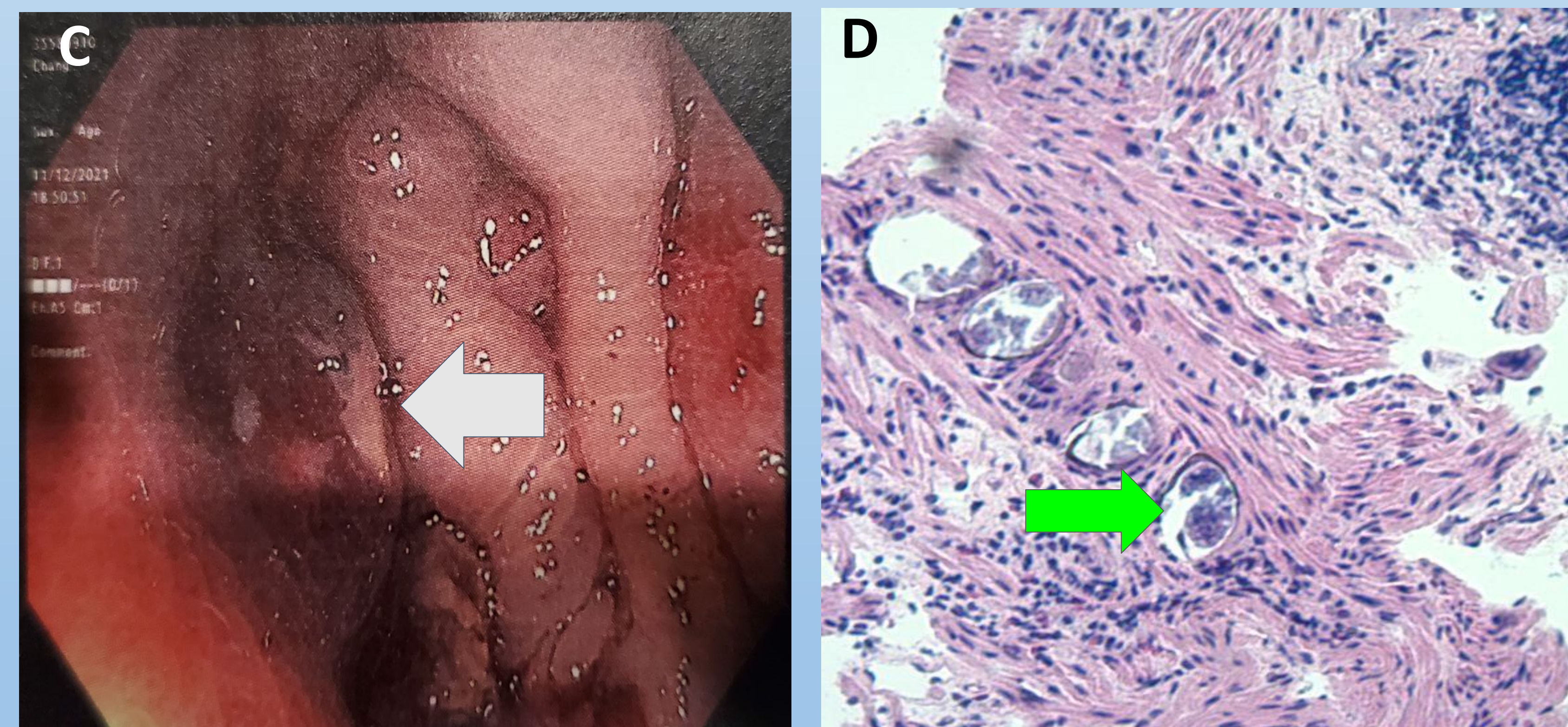
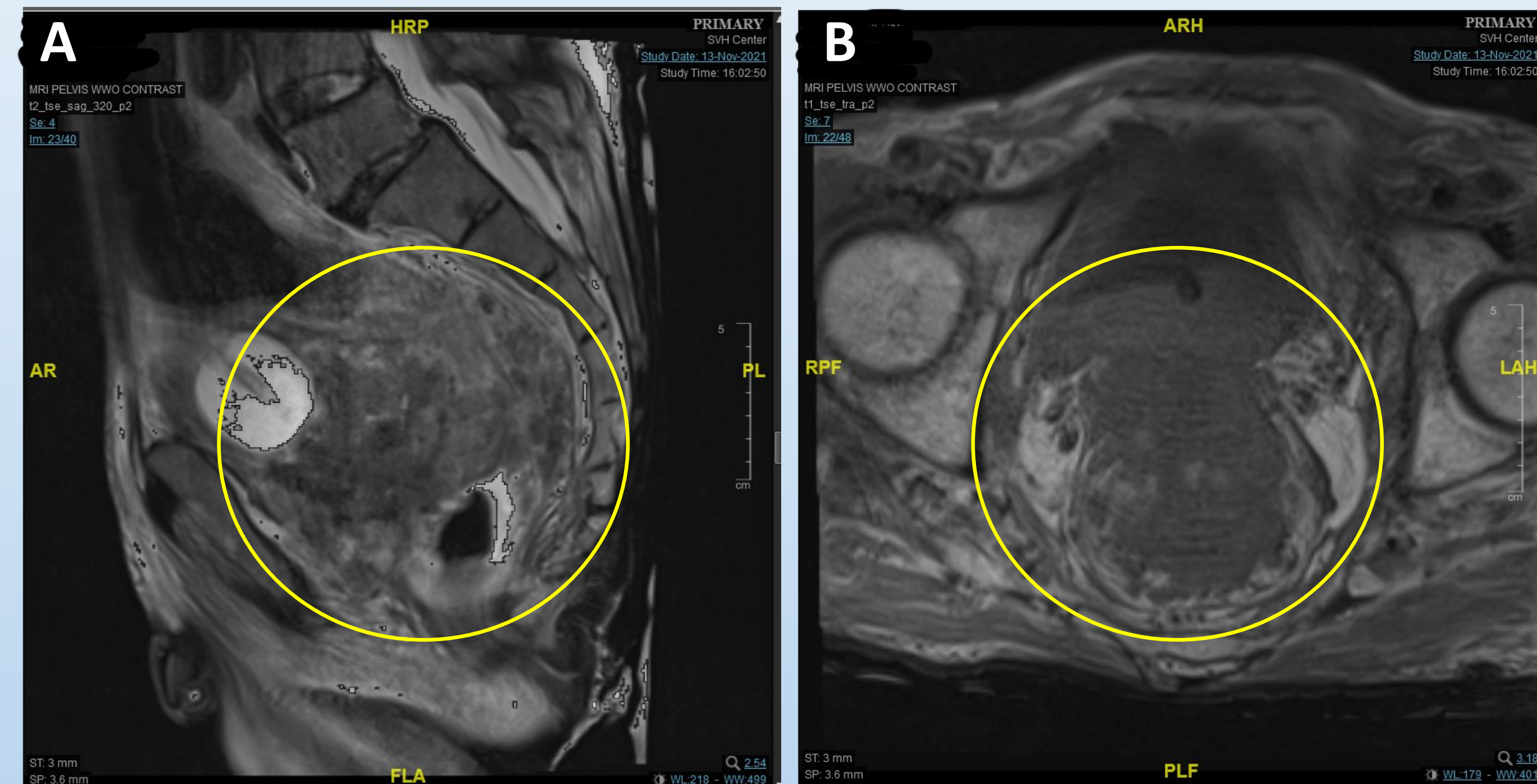
CT abdomen/pelvis w/ IV contrast: Diffuse circumferential hyperemia of the rectosigmoid colon. No distinct mass

MRI Pelvis w/ and w/o IV contrast: Large, multilobulated, irregular, enhancing and partially necrotic heterogenous mass centered within the rectum with marked distortion of the normal architecture of the colon. Extending from approx 3cm from the anal verge 10cm to the rectosigmoid colon. This extends into the perirectal tissue, the prostate and involves the posterior bladder wall. Abnormal pelvic lymphadenopathy is also seen with the largest being an external iliac lymph node measuring 3.5x2cm.

Colonoscopy: Fully obstructive ulcerated rectal mass 2cm from the anal verge unable to be traversed.

Pathology: Benign colonic mucosa with ulceration and focal calcified Schistosoma organisms.

Clinical Course: Patient underwent diagnostic laparoscopy and robotic proximal diverting loop sigmoid colostomy as the mass was unresectable. Outpatient treatment of schistosomiasis was recommended however patient opted for palliative measures.



- Coronal view of T1 weighted MRI of the pelvis showing large fungating pelvis mass (yellow circle)
- Axial view of T1 weighted MRI of the pelvis at the level of the femur
- Colonoscopic findings of ulcerated rectal mass (white arrow) approximately 2cm from the anal verge. Unable to be traversed with the colonoscope. NICE Type III appearing
- Pathology slide showing a calcified schistosome ova (green arrow) seen in the submucosa of the colon. An eosinophilic infiltrate is noted in the chronic inflammatory background, a pattern that is usually associated with parasitic infections of the GI tract.

DISCUSSION

- The typical clinical presentation of patients with a chronic gastrointestinal Schistosoma infection is benign rectal polyps, typically appearing as Paris Type IIa [2].
- Intestinal polyps from Schistosoma are rarely (0.6% of discovered polyps) noted to be larger than 2cm [2].
- Chronic intestinal schistosomiasis is associated with adenocarcinoma of the colon and prior infection increases the risk by as much as three times compared to those without previous infection [3]. This patient's presentation was inconsistent with the typical features of chronic infection.
- Schistosomiasis needs to be kept on the differential for specific patient populations presenting with hematochezia, as the early diagnosis and treatment can prevent late and more severe clinical complications as seen in this patient.

REFERENCES

- Chitsulo L, Engels D, Montresor A, Savioli L. The global status of schistosomiasis and its control. Acta Trop. 2000 Oct 23;77(1):41-51. DOI: 10.1016/S0001-706X(00)00122-4. PMID: 10996119; PMCID: PMC5633072.
- Qin X, Liu CY, Xiong YL, Bai T, Zhang L, Hou XH, Song J. The clinical features of chronic intestinal schistosomiasis-related intestinal lesions. BMC Gastroenterol. 2021 Jan 6;21(1):12. DOI: 10.1186/s12876-020-01591-7. PMID: 33407185; PMCID: PMC7789259
- Almoghribi, Anas MD¹; Mzaik, Obaie MD²; Attar, Bashar MD, PHD¹ Schistosoma japonicum Associated With Colorectal Cancer, ACG Case Reports Journal: May 2021 - Volume 8 - Issue 5 - p e00572 DOI: 10.14309/crj.0000000000000572