Atypical endoscopic and clinical presentation of strongyloidiasis

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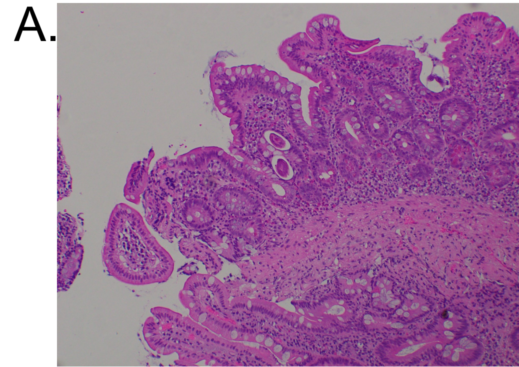
Background

- Strongyloidiasis is a helminthic parasitic infection caused by the nematode *Strongyloides stercoralis*.
- Acute infection classically presents sequentially with skin irritation, dry cough, and then non-specific gastrointestinal (GI) symptoms.
- Mild GI and dermatologic symptoms appear to be more prevalent in chronic infections.

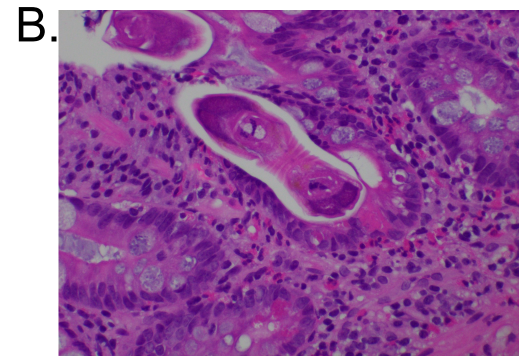
Case History

- 81-year-old female with a history of diverticulosis, hypertension, type 2 diabetes mellitus, and chronic kidney disease was admitted for anorexia, abdominal pain, and 26-pound weight loss over 6 months.
- **CT of chest, abdomen, and pelvis**: moderate left-sided pleural effusion and uncomplicated sigmoid diverticulitis.
- **Pleural fluid studies**: exudative features, with negative cultures and cytology.
- **Labs**: Absolute eosinophil count, total IgE, sedimentation rate, and c-reactive protein were elevated. Serum *Strongyloides* antibodies were positive. Chronic iron deficiency anemia of 7.4 g/dL.

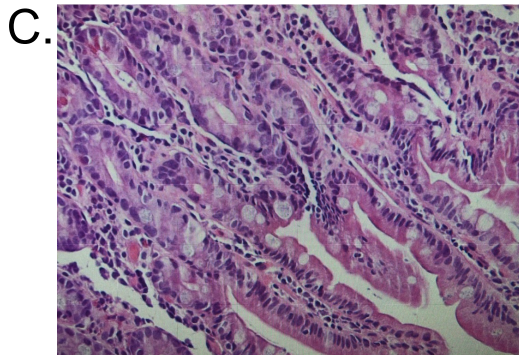
A.



B.



C.



Images: **A & B.** Pre-treatment duodenal biopsy showing mild chronic active duodenitis, several eosinophils, and parasitic organism. **C.** Post-treatment duodenal biopsy with no evidence of *Strongyloides*.

Case History

- **Enteroscopy** up to the mid jejunum appeared normal except for a 4 cm hiatal hernia.
- **Random duodenal biopsies** showed chronic active duodenitis with several eosinophils and parasitic organisms. Colonoscopy deferred due to acute diverticulitis.
- Patient was treated with oral **ivermectin** 200 mcg/kg/day for 2 weeks, as well as ciprofloxacin and metronidazole for diverticulitis
- Repeat duodenal biopsies after treatment did not reveal any parasitic organisms

Discussion

- Parasitic infections should be on the differential when patients present with symptoms concerning for malignancy.
- *S. stercoralis* has not been directly associated with diverticulitis thus far
- Typical endoscopic findings include edematous and erythematous mucosa with white villi. Our patient had normal endoscopic findings.
- Duodenal biopsies can aid in making the diagnosis for strongyloidiasis and should be considered in patients with similar presentations.