A bug in the gut

Clinical Presentation

A 7-year-old boy was presented for failure to thrive. He had poor appetite but no diarrhea, vomiting, or abdominal distension. He was a product of full-term, normal pregnancy. His systemic reviews were unremarkable. There was no similar problem in the family. His weight and height were both below the fifth percentile for age, otherwise, his physical examination and laboratory findings were normal. He underwent an upper gastro-intestinal endoscopy, and the histo-pathological biopsy of the duodenum is shown in Figure 1.

Questions

1. What is the diagnosis?
2. What are the characteristics of this pathology?
3. What is the drug of the choice?
Clinical Quiz

Answers and Discussion

1. **Diagnosis.** Giardia lamblia (G. lamblia), the cause of human giardiasis, is among the most common intestinal protozoa worldwide. Human infection may range from asymptomatic shedding of G. lamblia cysts to symptomatic giardiasis. Giardiasis can present as nausea, abdominal pain, acute or chronic diarrhea, malabsorption, and failure to thrive. Severe symptoms occur more often in children than adults.

2. **Characteristics.** Trophozoites of giardiasis are leaf-shaped, measuring 9-21 mm long, and 5-15 mm wide (black arrows in Figure 1). Trophozoites may be difficult to recognize in biopsy samples. Trophozoites of giardiasis have a characteristic face like image with 2 nuclei and transversely placed median bodies with stained organisms. In our patient, the organisms are not stained. While rarely necessary, duodenal biopsy may be the most sensitive test. Although more invasive, duodenal aspiration and biopsy offer the advantage of examining for trophozoites and other enteric pathogens.

3. **Medication.** Metronidazole (Flagyl) is commonly used as a first-line agent in the treatment of giardiasis with cure rates of 85-90%.

**References**


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