

Clinical Quiz

Submitted by: *Mohammed Y. Hasosah, MD, ABP, Ala A. Iskandarani, MD, Khalid J. Ghamdi, MD.*

From the Department of Pediatric Gastroenterology (Hasosah), and Department of Pediatrics (Iskandarani, Ghamdi), King Abdul-Aziz Medical City, National Guard Hospital, Jeddah, Kingdom of Saudi Arabia.

Address correspondence to: Dr. Mohammed Y. Hasosah, Department of Pediatric Gastroenterology, King Saud Bin Abdulaziz University for Health Sciences, National Guard Health Affairs, PO Box 8202, Jeddah 21482, Kingdom of Saudi Arabia. Tel. +966 (2) 6240000 Ext. 22759. E-mail: hasosah2007@yahoo.com

Notice: Authors are encouraged to submit quizzes for possible publication in the Journal. These may be in any specialty, and should approximately follow the format used here (maximum of 2 figures). Please address any submissions to: Editor, Saudi Medical Journal, Armed Forces Hospital, PO Box 7897, Riyadh 11159, Kingdom of Saudi Arabia. Tel. +966 (1) 4777714 Ext. 26570. Fax. +966 (1) 4761810.

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**.

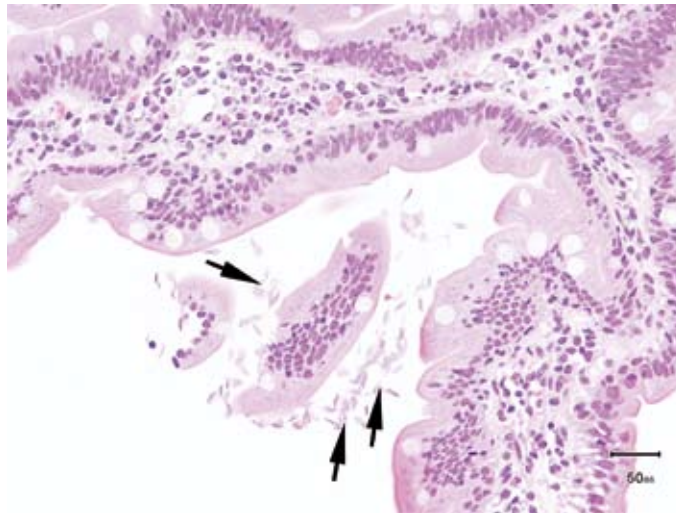


Figure 1 - Histopathology biopsy specimen of the second part of the duodenum.

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.¹ 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.¹
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.¹ Although more invasive, duodenal aspiration and biopsy offer the advantage of examining for trophozoites and other enteric pathogens.²
3. **Medication.** Metronidazole (Flagyl) is commonly used as a first-line agent in the treatment of giardiasis with cure rates of 85-90%.

References

1. Ali SA, Hill DR. *Giardia intestinalis*. *Curr Opin Infect Dis* 2003; 16: 453-460.
2. Aziz H, Beck CE, Lux MF, Hudson MJ. A comparison study of different methods used in the detection of *Giardia lamblia*. *Clin Lab Sci* 2001; 14: 150-154.
3. Nash TE. Treatment of *Giardia lamblia* infections. *Pediatr Infect Dis J* 2001; 20: 193-195.

Do you have any comments or questions? Agree or disagree with published articles?

The correspondence section within the journal is a forum to comments on any of the articles published in the journal. Correspondence will not be sent for peer review, and will only be edited for the use of appropriate language. All correspondence should be submitted and published within 6 months from the date of the original publication.

Please submit your correspondence through the journal website (www.smj.org.sa), and don't forget to clearly state the title of the original publication, and your contact details.