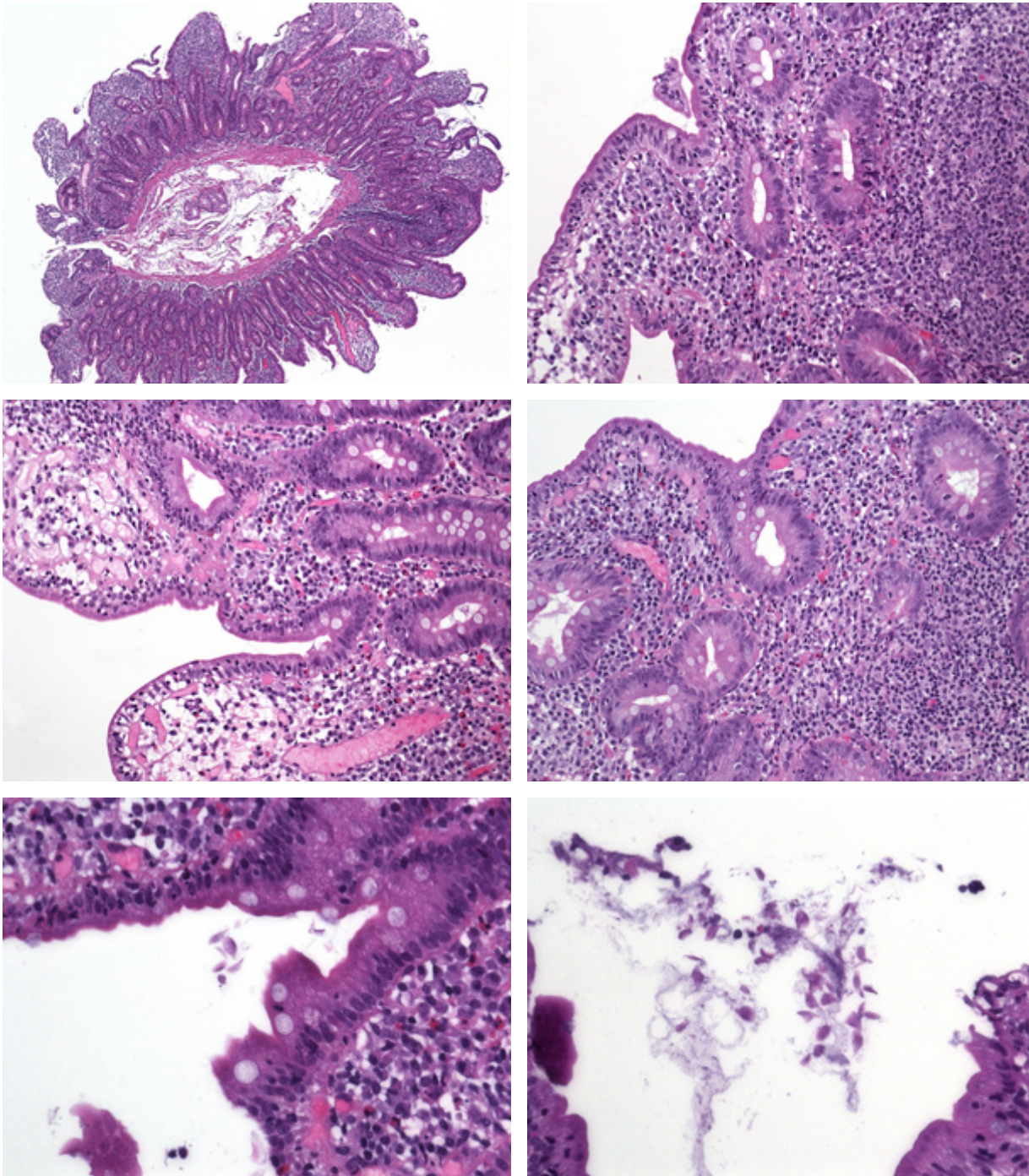


January 2014

19-year-old male with diarrhoea.

What is your diagnosis?



Diagnosis

Lymphocytic duodenitis with crypt hyperplasia and villous atrophy in Giardiasis.

Comment

Histological analysis of biopsy material obtained from the duodenum shows intestinal mucosa with moderately disturbed mucosal architecture, as documented by crypt hyperplasia and partial villous atrophy. The cellularity in the lamina propria is diffusely increased. On high magnification, a significantly increased number of

intraepithelial lymphocytes is seen (>40 per 100 surface epithelial cells), which had initially prompted a diagnosis of celiac disease. Some neutrophils are found in the lamina propria, occasionally invading the crypt epithelium (active duodenitis with focal cryptitis). Trophozoites of *Giardia lamblia* are detected on the mucosal surface. The patient received metronidazole, which led to full recovery of symptoms.

Giardiasis caused by *Giardia lamblia* is recognized as the leading gastrointestinal protozoal disease and is found all over the world. The disorder is self-limiting in 85% of cases, and chronic disease is considered to be rare. Colonization is most commonly observed in the small bowel (preferably the duodenum), but may also be present in the stomach (preferably the antrum) and very rarely in the colon. In the majority of cases the duodenal mucosa is "normal" on histology, indicating the need to look for *Giardia lamblia* on the mucosal surface before signing out a duodenal biopsy as normal. In less than 5% of cases there is duodenitis, which may be associated with increased numbers of intraepithelial lymphocytes and villous shortening, leading to an erroneous diagnosis of celiac disease.

For further reading

- › Oberhuber G, Kastner N, Stolte M. Giardiasis: a histologic analysis of 567 cases. *Scand J Gastroenterol.* 1997; 32: 48-51.
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- › Kasper HU, Kemper M, Siebert F, Langner C. Lamblieninfektion als Differenzialdiagnose der Zöliakie in der Duodenalbiopsie. *Z Gastroenterol.* 2010; 48: 829-32.
- › Edling L, Rathsman S, Eriksson S, Bohr J. Celiac disease and giardiasis: a case report. *Eur J Gastroenterol Hepatol.* 2012; 24: 984-7.

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