

Novel endoscopic findings in gastric giardiasis

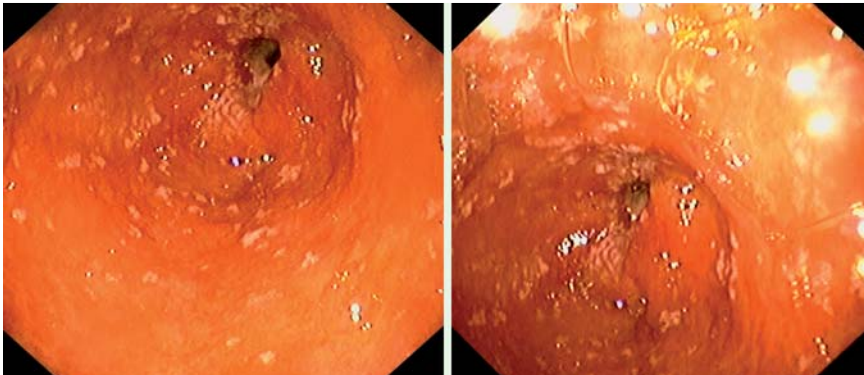


Fig. 1 Patchy, small cottonlike plaques visualized throughout the antrum.

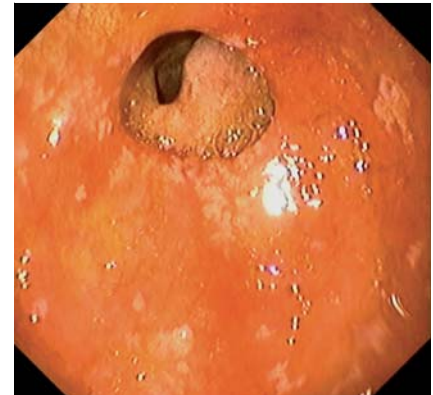


Fig. 2 Pronounced bile reflux through a wide open pylorus.

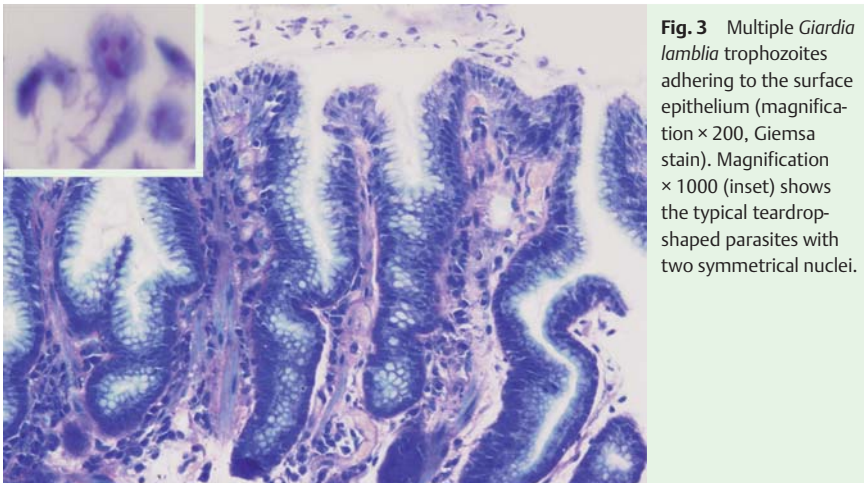


Fig. 3 Multiple *Giardia lamblia* trophozoites adhering to the surface epithelium (magnification $\times 200$, Giemsa stain). Magnification $\times 1000$ (inset) shows the typical teardrop-shaped parasites with two symmetrical nuclei.

Gastric giardiasis is a rare entity with fewer than 100 cases reported in the literature. No specific endoscopic features have been described.

We report the case of a 62-year-old man presenting with recurrent esophageal food impaction owing to a 9-mm long peptic stricture. He had been on long-term treatment with a proton pump inhibitor (omeprazole 20 mg twice daily). Endoscopy revealed a meat bolus impacted above the stenosis, which was easily retrieved with a Roth net. The antrum showed patchy distribution of small cottonlike lesions over a markedly erythematous mucosa (● **Fig. 1**) and severe biliary reflux throughout a wide open pylorus (● **Fig. 2**). The endoscopic appearance of the duodenum was normal. Histological examination of the biopsy samples of the gastric lesions revealed multiple trophozoites of *Giardia lamblia* adherent to the surface epithelium and active, chronic alkaline gastritis (● **Fig. 3**). *Helicobacter pylori*

infection was not detected on either histological examination or ^{13}C -urea breath test. A pH catheter study on acid suppression disclosed a $\text{pH} > 6$ within the stomach. The presence of *G. lamblia* in the duodenum was confirmed by repeat endoscopy and treatment with metronidazole 250 mg three times daily for five days was prescribed. Further, an epidemiologic interview revealed that he often drank nonpotable water from a well.

G. lamblia, which is the most common cause of parasitic infections worldwide, is associated with poor sanitary conditions or inadequate water treatment [1]. Gastric giardiasis was first described in 1992 [2] and the mechanism for gastric infestation is believed to be passive reflux of duodenal parasites followed by active colonization. Since an acidic environment prevents gastric infection and attachment of excysted trophozoites occurs at pH 6.38–7.02, a variety of common conditions that create a non acidic gastric environment [3], such as duodenogastric reflux of bile, pharmacological acid suppression (both present in our patient), *H. pylori* infection, gastric surgery, or atrophic gastritis, can result in gastric infestation. This case report describes the first endoscopic findings for gastric giardiasis.

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Bibliography

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