


## Endoscopic remission of primary gastric B-cell lymphoma after nonspecific therapy with a proton pump inhibitor

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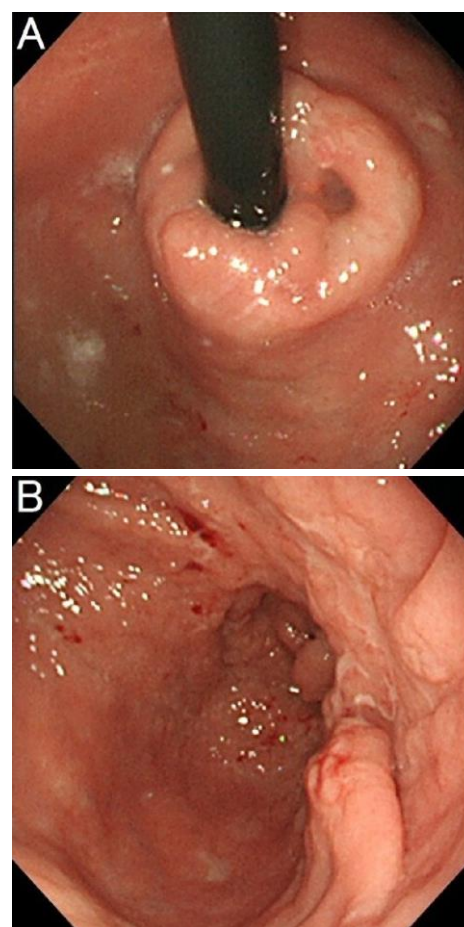
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Dear Editor,

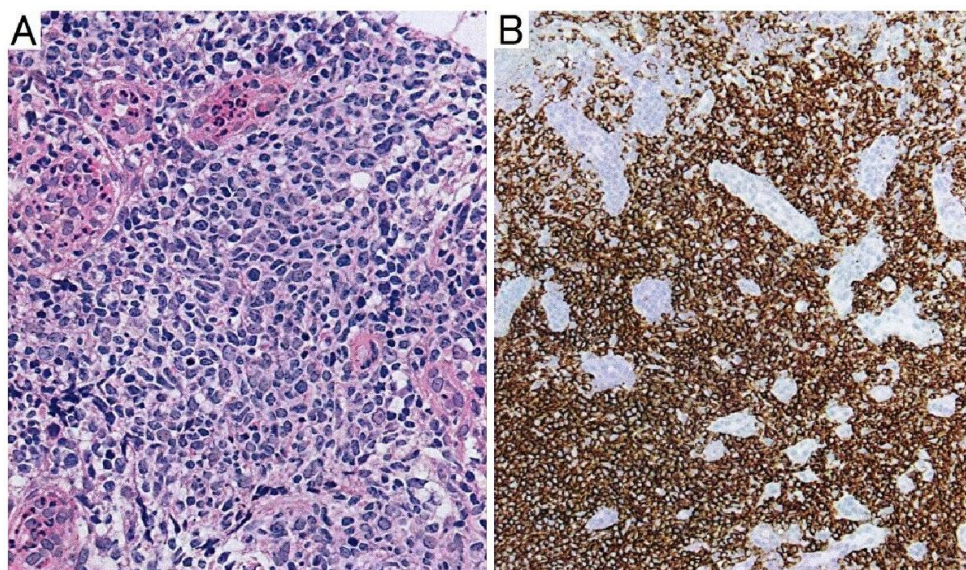
A 91-year-old woman with Alzheimer's disease presented to the gastroenterology department with a 1-month history of appetite loss. Vital signs were normal, and her abdomen was soft without tenderness. Laboratory evaluation was unremarkable. Abdominal ultrasonography showed no abnormalities. Esophagogastroduodenoscopy (EGD) revealed a mucosal thickening with mild erosion of the gastric cardia and a shallow irregular ulcer in the gastric antrum (**Figure 1**). She was orally administered a proton pump inhibitor (PPI) (lansoprazole, 15 mg once daily) to treat the gastric ulcer. Biopsy specimens showed a diffuse infiltration of lymphocytes with mild atypia (**Figure 2A**). In addition, immunohistochemistry confirmed that the lymphocytes were positive for CD20 and CD79a (**Figure 2B**); these findings are characteristic for B-cell lymphoma. Whole body computed tomography showed no lymphadenopathy. Therefore, a diagnosis of primary gastric B-cell lymphoma was made. Due to the comorbidity and advanced age, she started to receive best supportive care. Four months later, follow-up EGD showed the gastric lesions had healed (i.e., endoscopic remission) (**Figure 3**). However, her loss of appetite had lasted; thus, the initial symptom was thought to be due to the progression of Alzheimer's disease. Informed consent for percutaneous endoscopic gastrostomy (PEG) was obtained from the patient's family, and PEG was performed without any complication. No endoscopic recurrence of gastric lymphoma had been observed. Three years later, she died owing to aspiration pneumonia.



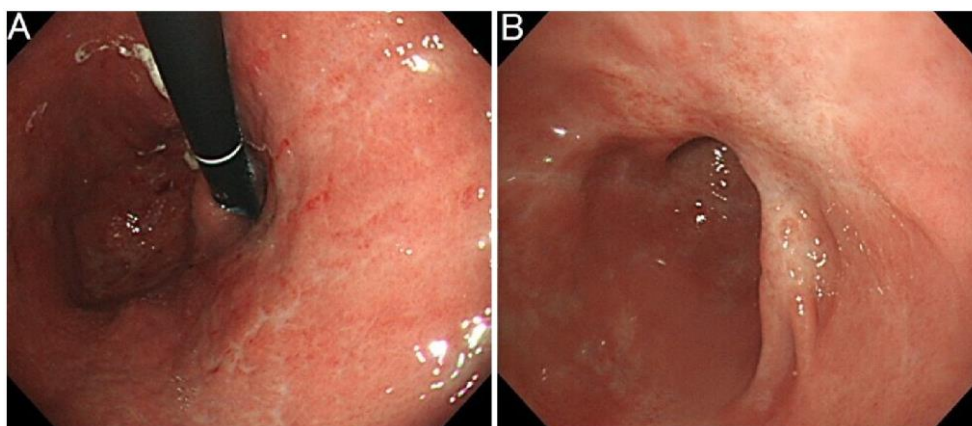
**Figure 1.** Esophagogastroduodenoscopy showing a mucosal thickening with mild erosion of the gastric cardia (Panel A) and a shallow irregular ulcer in the gastric antrum (Panel B) (reprinted with permission)

Primary gastric lymphoma accounts for 1–4% of gastric malignancies [1]. It is mainly treated by chemotherapy and surgery. Although morphological changes often occur, spontaneous regression is extremely rare [1]. While a few case reports have described regression with a histamine-2 receptor antagonist (H2RA) [1-2], there are

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**Figure 2.** Histological evaluation revealing a diffuse infiltration of lymphocytes with mild atypia (hematoxylin and eosin staining; Panel A) and CD20-positive lymphocytes (Panel B) (reprinted with permission)



**Figure 3.** Healing of the gastric lesions 4 month later (reprinted with permission)

no reports of regression with a PPI. Mucosa-associated lymphoid tissue (MALT) lymphoma and diffuse large B-cell lymphoma (DLBCL) can be associated with *Helicobacter pylori* infection [3]. Therefore, *H. pylori* eradication is a treatment of choice for gastric MALT lymphoma and limited-stage gastric DLBCL [3]. However, in the present case, no *H. pylori* was found in the obtained specimens. Both H2RA and PPI as an adjuvant therapy in DLBCL can modulate malignancy homeostasis mechanisms and boost chemotherapy antitumor effects [4]. Recently, a comparative randomized study showed that lansoprazole produced a significant elevation in the response rate compared to the control group or the famotidine group [4]. In elderly patients who have difficulty receiving aggressive treatment, it may be worthwhile to administer lansoprazole. Although histological remission was unclear, this is the first report showing that nonspecific therapy with a PPI led to endoscopic remission.

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**Ethical statement:** The author stated that no ethics committee approval was required. Written informed consent was obtained from the patient's family.

**Declaration of interest:** No conflict of interest is declared by the author.

**Data sharing statement:** Data supporting the findings and conclusions are available upon request from the author.

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