

Endoscopic Submucosal Dissection of Localized Gastric Amyloidosis

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CASE REPORT

A 45-year-old man presented to our department for evaluation of a depressed lesion in the stomach, which was initially detected during screening endoscopy for gastric cancer. He had no symptoms of epigastric pain, indigestion, or diarrhea. Endoscopy revealed a discolored, depressed lesion, measuring approximately 20 mm in diameter, located on the lesser curvature of the gastric lower body (Figure 1). Magnifying endoscopy with narrow-band imaging revealed disappearance of normal pit structures in some areas, and abnormally thickened blood vessels were observed (Figure 2). Endoscopic ultrasonography revealed that the lesion was confined to the mucosal and submucosal layers of the stomach. Endoscopic biopsy revealed eosinophilic amorphous materials deposited in the lamina propria mucosae, and Congo red staining identified amyloid proteins. Tests for *Helicobacter pylori* showed negative results. Other studies, such as serum and urine protein electrophoresis, skull and spine radiography, thoracic, abdominal and pelvic computed tomography, echocardiography, colonoscopy with biopsy, and bone marrow biopsy, showed no systemic involvement of amyloidosis. Therefore, endoscopic submucosal dissection was performed for localized gastric amyloidosis (Figure 3). Histopathological examination revealed deposition of eosinophilic amorphous materials in the lamina propria mucosae and submucosa, which were positive for Congo red staining (Figure 4). Congo red staining performed after potassium permanganate incubation confirmed the light chain amyloid type. Because the localized gastric amyloidosis was completely resected and there was no evidence of systemic

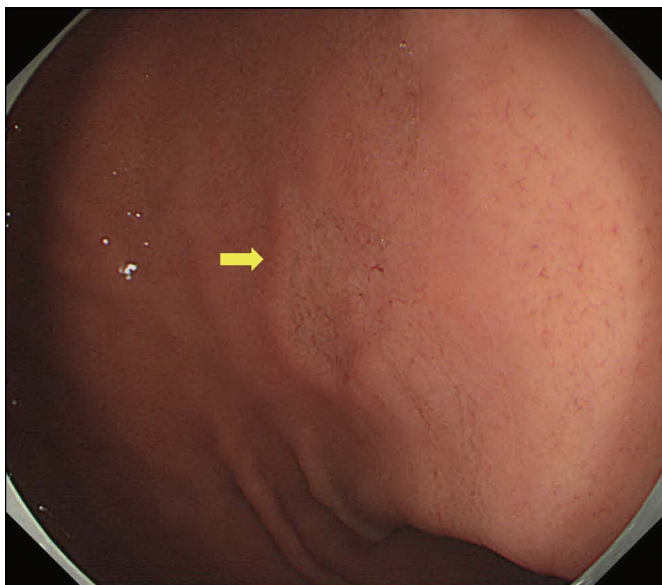


Figure 1. Endoscopy reveals a discolored, depressed lesion, measuring approximately 20 mm in diameter, seen on the lesser curvature of the gastric lower body (arrow).

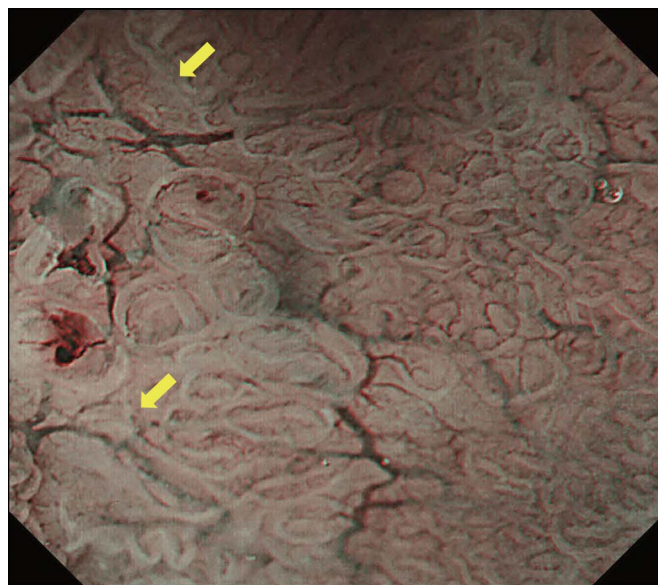


Figure 2. Magnifying endoscopy with narrow-band imaging shows disappearance of normal pit structures in some areas (arrows), and abnormally thickened blood vessels are observed.

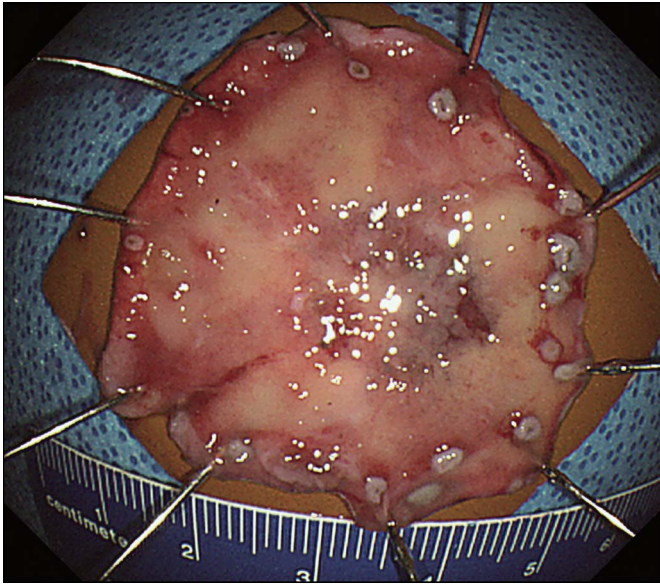


Figure 3. The specimen resected by endoscopic submucosal dissection.

involvement, additional systemic therapies for amyloidosis were not performed. No sign of recurrence was found during follow-up endoscopies or laboratory tests over the following 24 months.

Localized gastric amyloidosis can appear as various macroscopic forms, such as erosion, ulcer, or polypoid mass on endoscopy.¹ In this case, the lesion appeared as early gastric cancer type IIc. Therefore, although rare, localized gastric amyloidosis should be included in the differential diagnosis of a lesion with a morphology of early gastric cancer. Currently, there are no documented guidelines for the treatment of localized gastric amyloidosis. Some reports suggest surgical resection with lymph node dissection,² whereas other reports suggest that no further treatment is needed if the patient is symptom-free on clinical follow-up.^{3,4} Based on our experience, when the lesion is limited to the mucosal and submucosal layers, endoscopic submucosal dissection could be another treatment option for localized gastric amyloidosis.⁵

DISCLOSURES

Author contributions: HE Lee wrote the manuscript. MW Lee edited the manuscript, revised the manuscript for intellectual

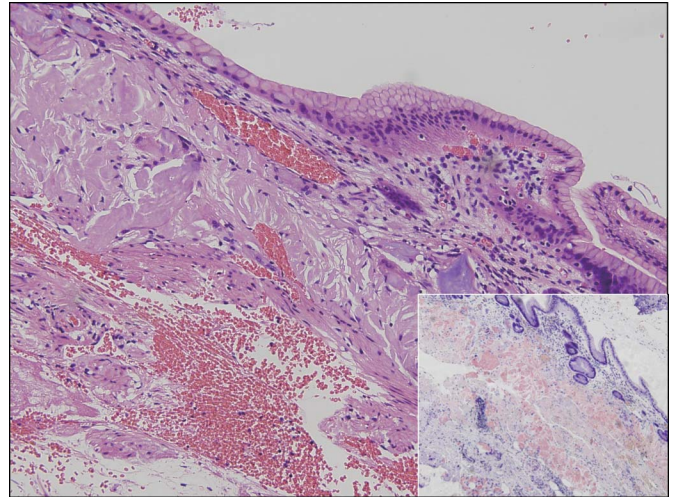


Figure 4. Histological examination of the resected specimen shows the deposition of eosinophilic amorphous material in the lamina propria mucosae and submucosa (hematoxylin and eosin stain, 400× magnification). Congo red stain reveals pink-red deposits of amyloid (boxed area, Congo red stain, 200× magnification).

content, and approved the final manuscript. GH Kim approved the final manuscript and is the article guarantor.

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Informed consent was obtained for this case report.

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