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VIDEO | ENDOSCOPY

Circumferential Endoscopic Submucosal Tunnel Dissection of Gastric Cardia Adenocarcinoma

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CASE REPORT

A 69-year-old healthy man underwent upper gastrointestinal endoscopy for dyspepsia. Endoscopic examination identified a 30-mm superficial lesion in the esophagogastric junction (EGJ) (Siewert II), involving 70% of the circumference and extending to the fundus (Figure 1). The lesion was slightly depressed with elevated areas (T0-IIc + IIa), without unequivocal endoscopic suspicion of submucosal invasion. Biopsy revealed a well-differentiated adenocarcinoma. After multidisciplinary evaluation, endoscopic submucosal dissection (ESD) was planned.

The procedure was performed under general anesthesia and endotracheal intubation, using a gastroscope (GIF-HQ190; Olympus, Tokyo, Japan) and carbon dioxide insufflation (Video 1; watch the video at http://links.lww.com/ACGCR/A3). Marking dots were placed 2–5 cm outside the margin of the lesion (Figure 2). The lesion was elevated with a colloid solution (Voluven [Fresenius Kabi Norge AS, Halden, Norway] + indigo carmine + adrenaline [1:250000]), and a circumferential incision was performed followed by endoscopic submucosal tunnel dissection using the FlushKnife (Fujifilm Corp., Tokyo, Japan) and the ITKnife nano (Olympus). A forward and retroflex combined approach was required. En bloc resection was achieved, obtaining a circumferential specimen with a length of 7 cm, corresponding to the entire EGJ mucosa (Figures 3 and 4). There were no immediate complications, and the patient was discharged 48 hours after the procedure under proton-pump inhibitor and prednisolone (30 mg/d for

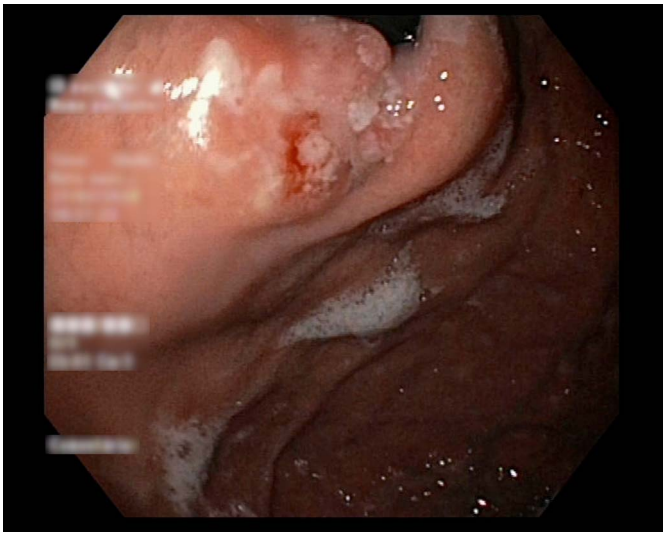

Figure 1. A 30-mm cardia lesion involving 70% of the circumference.

Video 1. Video capsule endoscopy showing circumferential endoscopic submucosal tunnel dissection of the gastric cardia adenocarcinoma. Watch the video: http://links.lww.com/ACGCR/A3 http://s3.gi.org/media/links/Mendez_v1.mp4.

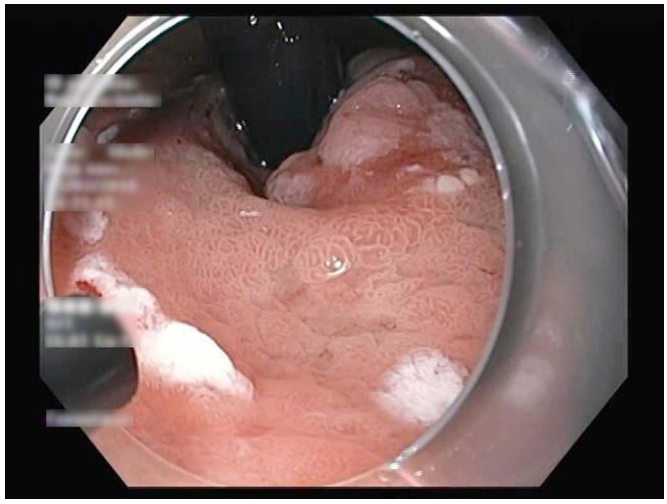

Figure 2. Using a retroflex approach, the lesion was delineated.

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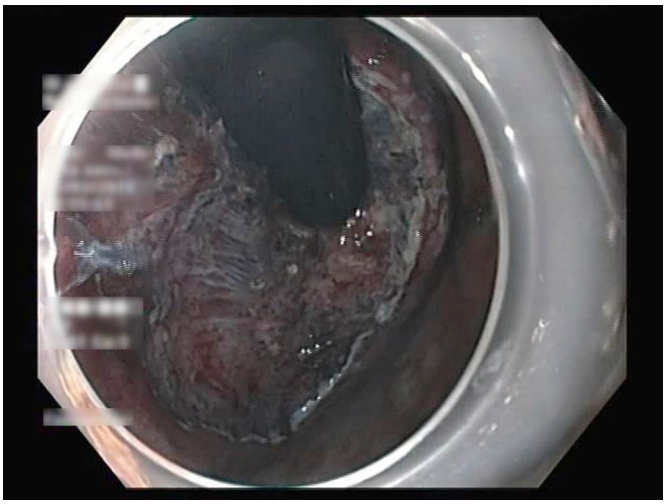

Figure 3. The resulting scar in retroflex view.

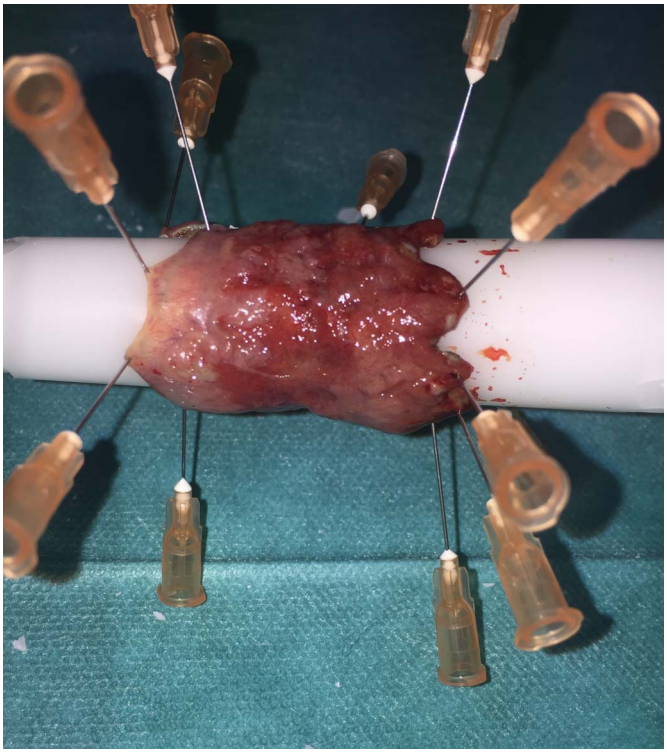

Figure 4. A complete, circumferential, en bloc resection.

5 days and then tapered over 1 month). Pathological analysis confirmed complete (R0) resection of an intestinal-type adenocarcinoma, with 800 μm submucosal infiltration and without lymphovascular invasion. Although complete, the excision was not curative (>500 μm submucosal invasion), and the patient was referred to surgery which he refused. Three months after the endoscopic procedures, the patient was asymptomatic and endoscopic surveillance showed no stenosis nor recurrence.

The incidence of adenocarcinoma of the EGJ has been increasing in Western countries. Surgical treatment often requires total gastrectomy with distal esophagectomy, a major procedure with negative impact on patient's quality of life. ESD is a widely accepted treatment modality for selected early gastric cancer; however, it remains a technical challenge for EGJ neoplasm. Studies have showed that it may be an effective, safe, and feasible therapy, with an en bloc resection rate >90% and curative resection rate >70% for gastric cardia adenocarcinoma.[1,2] In the reported case, endoscopic features of the lesion required a forward and retroflex combined approach and a mucosal circumferential excision, a difficult method eased by endoscopic submucosal tunnel dissection technique.[1,3] This organ-sparing endoscopic technique allows en bloc resection of superficial lesions, providing a higher resection speed without increased risk compared with conventional ESD.[3–5]

DISCLOSURES

Author contributions: C. Félix wrote the manuscript and is the article guarantor. All the other authors critically revised and approved the submitted version.

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