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CASE 1

A 38-year-old man had a history of melena for 1 week. EGD revealed one clean-based ulcer sized 3 cm. in diameter at the gastric body. After the treatment to eradicate *H. pylori*, a repeat EGD was performed and the ulcer was still persist (Figures 1-4). Histopathology showed tumor cells, arranging in solid sheet and complex glands. Those cells pose intracytoplasmic mucin and pleomorphic nuclei with visible nucleoli as

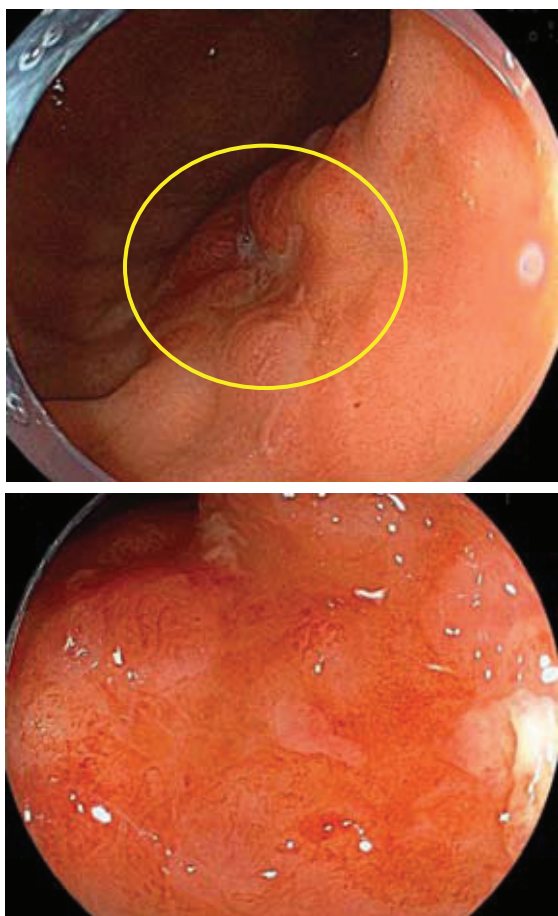
shown in Figures 5-6.

Diagnosis:

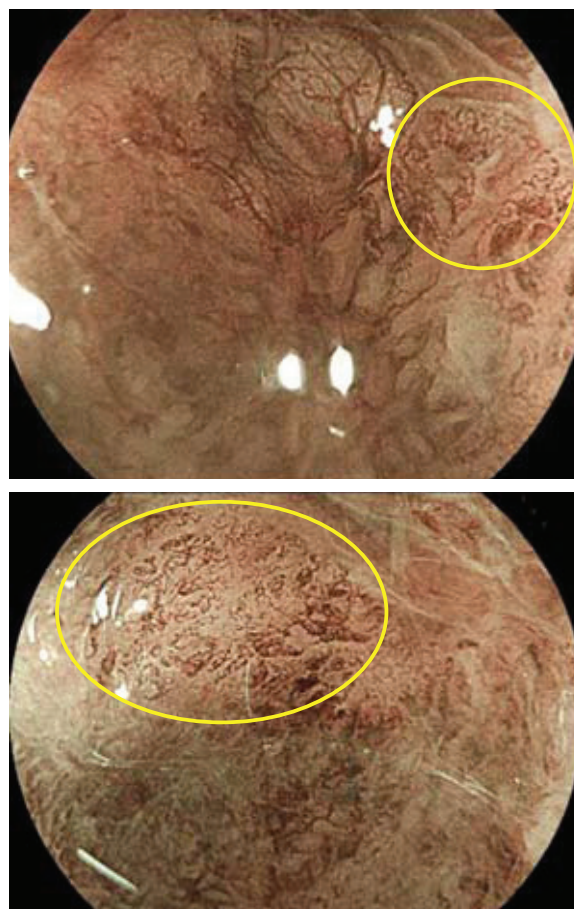
Poorly differentiated signet ring cell gastric carcinoma.

Discussion:

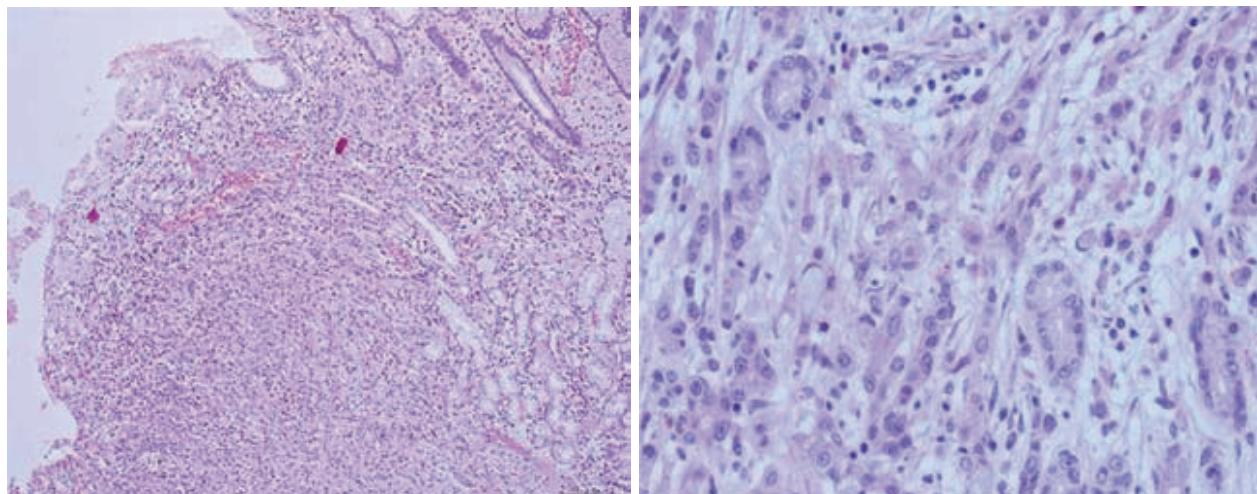
Giant gastric ulcer (>3 cm.) accounts for as many



Figures 1-2. Under white light endoscopy, an ulcerative mucosal mass with elevated irregular border was seen in the body of stomach.



Figures 3-4. BLI-bright showed loss of gastric pit with corkscrew patterns of vascular structure of the gastric mucosa.



Figures 5-6. Poorly differentiated adenocarcinoma with patchy signet ring cell appearance.

as 10% to 24% of all gastric ulcers. These often have more aggressive disease, with a higher incidence of bleeding and higher mortality rates (10% vs. 3%) compared with patients with smaller ulcers⁽¹⁾. Gastric ulcer that suggestive of malignancy has specific features such as an associated mass lesion, elevated irregular ulcer borders, and abnormal adjacent mucosal folds. With magnifying endoscopy, fine network patterns and loop patterns are mostly associated with well- or moderately-differentiated adenocarcinoma whereas corkscrew patterns or wavy microvessels mostly correspond to the poorly-differentiated adenocarcinoma⁽²⁾. Histopathologic finding often shows signet-ring-like cells with intracytoplasmic mucin pooling and many times the mucin poolings push the nuclei to periphery⁽³⁾.

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CASE 2

A 71-year-old woman presented with dyspepsia. EGD showed a central depressed lesion at the gastric incisura (Figure 1). On the BLI bright study, there was an area of dilated and tortuous microvascular with central absence of microsurface pattern (Figure 2). This met the criteria for a cancerous lesion. The lesion was biopsied and its histopathological result was compatible with gastric intestinal metaplasia (GIM) and focal high grade dysplasia (Figure 3). Subsequently, endoscopic submucosal dissection (ESD) was performed (Figures 4-5). The final histopathological result of the en bloc specimen demonstrated a well differentiated adenocarcinoma (Figure 6) with free resection margin.

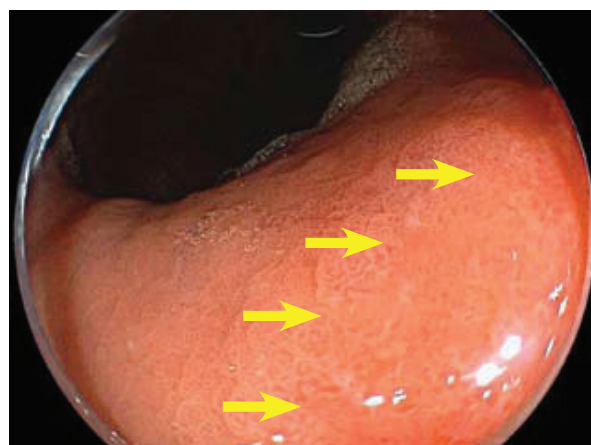


Figure 1. White light endoscopy showed a central depression at the gastric incisura. (Outline by arrows)



Figure 2. Blue laser imaging (BLI-bright) showed dilated and tortuous microvascular with a central area of absent in microsurface pattern (circle). Light blue crest (arrows) of gastric intestinal metaplasia was also found at the gastric incisura.

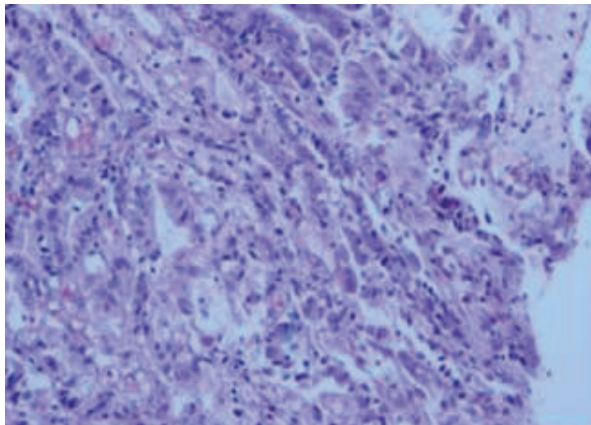


Figure 3. Histopathological study of the biopsied specimen showed gastric intestinal metaplasia with a focal high grade dysplasia.

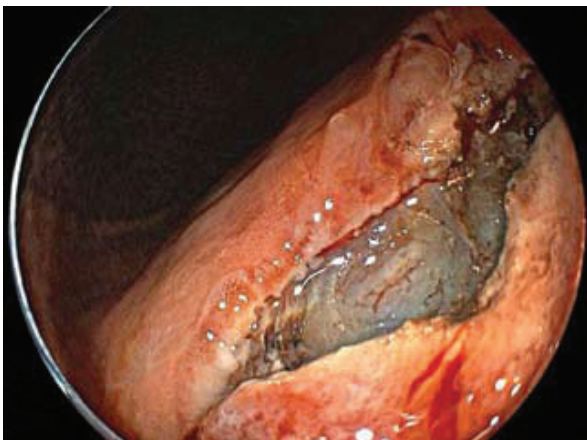


Figure 4. An EGD showed submucosa at the margin of lesion during endoscopic submucosal dissection at the incisura.



Figure 5. A 4 cm. en bloc resected specimen.

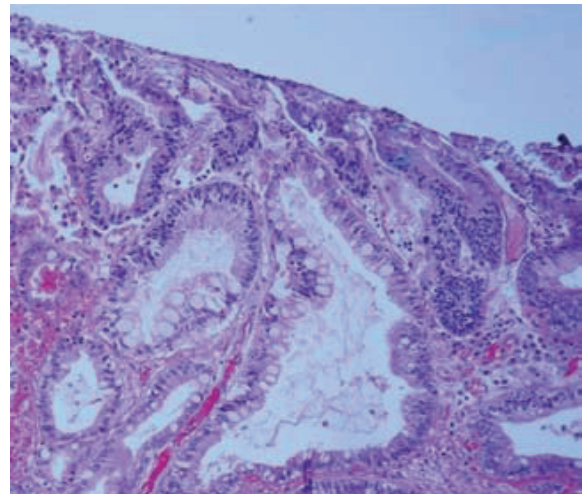


Figure 6. Histopathological result of the en bloc specimen showed well differentiated adenocarcinoma.

Diagnosis:

Well differentiated adenocarcinoma of the stomach.

Discussion:

Early gastric cancer is defined as a lesion confined to mucosal or submucosal layer without the presence of lymph node metastases. Once completely resected, it has a good prognosis because of its low incidence of lymph node metastasis and low recurrent rate⁽¹⁾.

Endoscopic submucosal dissection (ESD) can be used as a definitive therapy of pre-malignant and early stage malignant lesions⁽²⁾ in the digestive tract including gastric high grade dysplasia. It is performed by three steps:

1. the submucosa is injected with fluid to elevate

the lesion from the muscle layer,

2. the surrounding mucosa of the lesion is circumferential cut, and

3. the connective tissue of the submucosa beneath the lesion is dissected⁽³⁾.

ESD provides an en bloc specimen size larger than 20 mm. leading to a precise histological diagnosis and lower rate of recurrence. However, performing an ESD requires a skilful endoscopist and a long procedural time^(4,5). Moreover, ESD has a significant rate of perforation at 4.3%⁽⁵⁾.

A meta-analysis of ESD in early gastric cancer showed the success rate in en bloc resection at 92%, histologically complete resection rate at 82% and recurrent rate at 0.8%⁽⁵⁾.

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CASE 3

A 75-year-old Thai female underwent a colonoscopy for colorectal-cancer screening. A flat polyp was found. Chromoendoscopy with indigo carmine showed a slightly elevated lesion or laterally spreading tumor (LST) granular type size 2.0 cm. at the descending colon. The surface of LST was composed of superficially homogenous small nodules which was consistent with LST granular with homogeneous type 0-IIa in Paris classification (Figures 1-2). Under BLI and BLI bright, it showed brown color surface with short tubular pit pattern (Kudo's classification type IIII) surrounded by regular thick brown vessels (Sano's classification type II) (Figures 3-4).

Endoscopic mucosal resection was performed

(Figure 5). Histological diagnosis confirmed the presence of tubular adenoma without malignant transformation (Figure 6).

Diagnosis:

Laterally spreading tumor of the colon granular type.

Discussion:

Laterally spreading tumor (LST) of the colon was defined as a lesion greater than 10 mm. in diameter with typically extends laterally rather than vertically along the colonic wall and belongs to the class non-polypoid colorectal neoplasia. They were classified into



Figures 1-2. Chromoendoscopy with indigo carmine showed a laterally spreading tumor with granular type (Paris classification type 0-IIa).



Figures 3-4. Blue laser imaging (BLI) and BLI-bright demonstrated brown color background with short tubular pit pattern (Kudo's classification type IIIL) surrounded by thick brown vessels (Sano's classification type II).

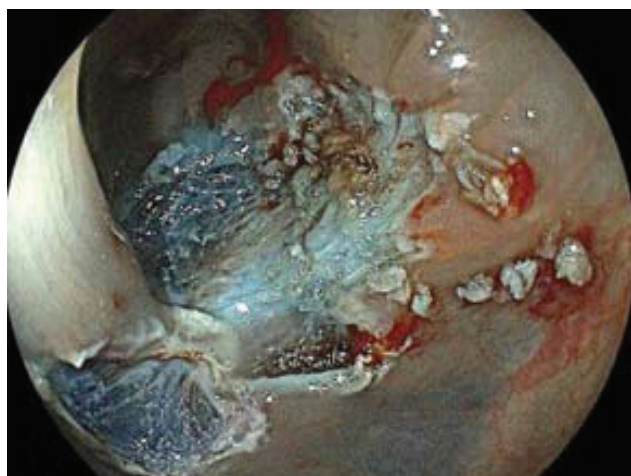


Figure 5. Successful endoscopic mucosal resection (EMR).

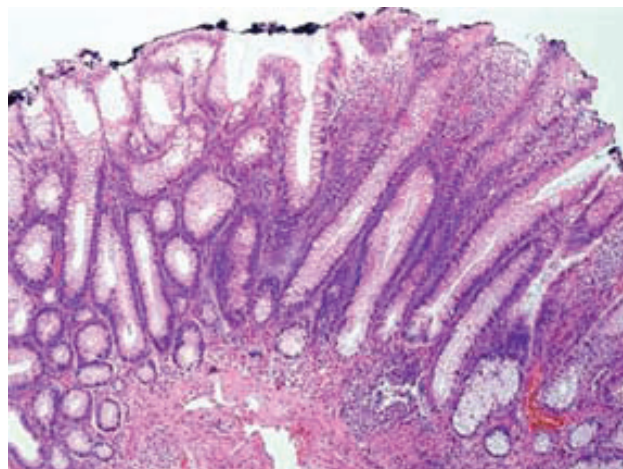


Figure 6. Tubular adenoma with low grade dysplasia without malignant transformation.

two subtypes as the granular type (LST-G) which endoscopically consist of numerous nodules having a homogenous color in comparison with the surrounding colonic mucosa and non-granular (LST-NG) which consist of a smooth surface^(1,2).

Because of their morphological features, these lesions may being missed by standard white light colonoscopy⁽³⁾. LSTs have an increased rate of submucosal invasion. Rates of invasion, particularly for the LST-NG subtype are as high as 30%-40%, whereas the granular subtype is significantly lower (about 5%-10%)⁽⁴⁾. Therefore, endoscopists need to have an awareness of their potential presence and follow-up on them accordingly. The therapeutic strategy for LST-G is endoscopic mucosal piecemeal resection with the area including the large nodule resected first, whereas

LST-NG should be removed en bloc with endoscopic submucosal dissection (ESD) because of the higher potential for malignancy, often multifocal and greater difficulty in diagnosing depth of submucosal invasion⁽⁵⁾.

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