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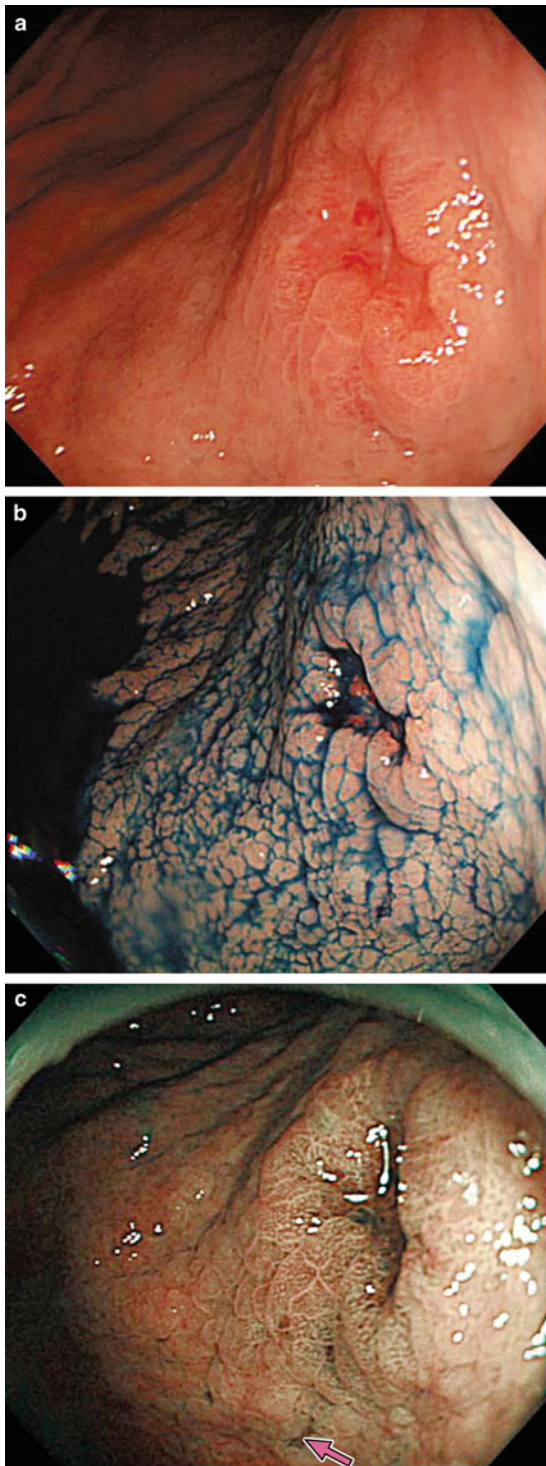


Fig. 11.1 (a) WL endoscopic image (b) Indigo carmine stained image (c) NBI endoscopic image

11.1 Let's Try to Diagnose This Lesion

11.1.1 Let's Look at the Reddish Part

- WL endoscopy shows a reddish, irregular, and depressed lesion with a clear margin on the posterior wall of the gastric upper body.
- WL endoscopy reveals an even more reddish part within the depression.
- The depressed area is surrounded by a circumferential protuberance (Fig. 11.1a).

11.1.2 Let's Spray Indigo Carmine

- Chromoendoscopy using indigo carmine shows more clearly the margin of the depressed lesion as compared with WL endoscopy. It also shows irregular edges referred as "worm-eaten appearance."
- Chromoendoscopy using indigo carmine shows slightly rough and large areal patterns in the surrounding protuberance as compared with the areal patterns of the background mucosa (Fig. 11.1b).

11.1.3 Let's Magnify with NBI

- NBI shows an irregular brownish area.
- The pink arrow in this NBI shows a small depression on the greater curvature. This part is examined further with NBI magnified endoscopy (Fig. 11.1c).

11.1.4 Let's Examine More with Magnified NBI

- The central part of the main lesion is evaluated with NBI magnified endoscopy at moderate magnification.
- The pink arrow in this NBI magnified endoscopy shows pitlike structures.
- NBI magnified endoscopy shows vascular pattern with caliber changes, running irregularities, and network formations (Fig. 11.2a).

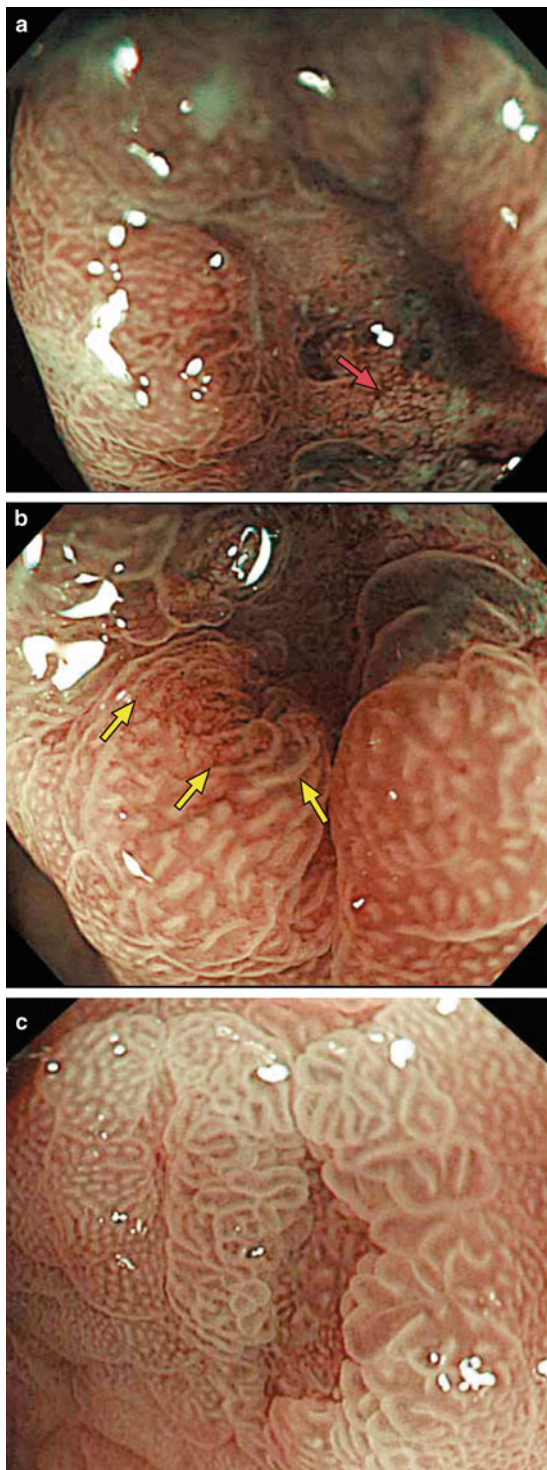


Fig. 11.2 (a) Moderate magnification NBI endoscopic image (b) Lateral margin in the greater curvature side of the lesion (c) Oral side of the lesion

11.1.5 Let's Magnify the Lateral Margin in the Greater Curvature Side of the Lesion

- NBI magnified endoscopy shows a villous pattern consisting of villi of variable sizes extending from the depression up to about half the height of the surrounding protuberance. Vascular patterns with caliber changes and running irregularities are noted on the depression side.
- The background mucosa shows a regular villous pattern. The part designated by yellow arrows is diagnosed as the demarcation line of the lesion by differences in surface patterns.
- Therefore, this main lesion is diagnosed as gastric adenocarcinoma, well-differentiated type, T1a-M (Fig. 11.2b).

11.1.6 Let's Carefully Observe the Oral Side of the Lesion

- NBI magnified endoscopy shows a pitlike pattern with variable pit sizes in the depressed lesion extending toward the greater curvature side. (This small depression on the greater curve side of the main lesion is same as noted by the pink arrow in the first NBI image.) NBI magnified endoscopy shows abnormal vessels with caliber changes, running irregularities, and network formations.
- This depressed part is also diagnosed as WDA (tub1). The lesion is thought to be extending orally along a crease from the main lesion.
- Therefore, the lesion is diagnosed as gastric adenocarcinoma, well-differentiated type, 0-IIc, T1a-M. This lesion was resected enbloc by ESD after putting the markings around the lesion (Fig. 11.2c).

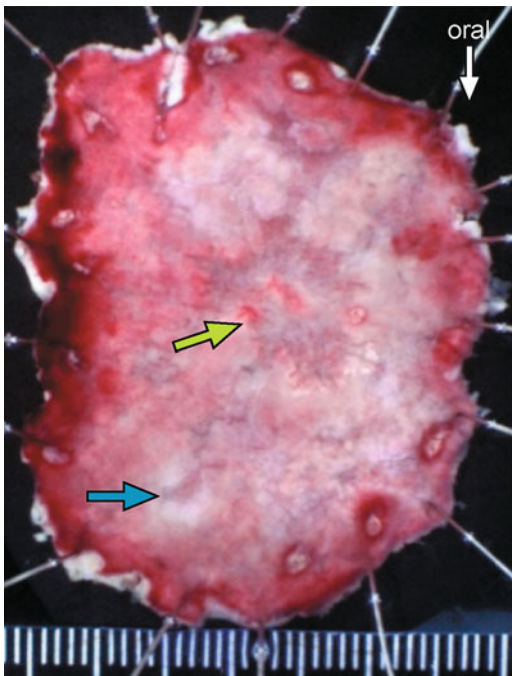


Fig. 11.3 Freshly resected specimen

11.2 From ESD to the Conclusive Diagnosis

11.2.1 Let's Examine the Freshly Resected Specimen

- The lower side of the image is the oral side (Fig. 11.3).
- The irregularly shaped, reddish depression is observed in the center of the specimen. A protuberance is noted within the depression as designated by a light green arrow. The demarcation of the lesion can be followed by differences in color and height of the lesion against its surrounding mucosa.
- The blue arrow in the fresh specimen denotes the smaller depression continuous with the central main depressed lesion via a narrow groove (Fig. 11.3).

11.2.2 Let's Compare the Fresh Specimen with the Endoscopic Image

- The reddishness in the center of the depression (light green arrow) and the depression extended to greater curvature side (blue arrow) correspond (Fig. 11.4a).
- This image shows a pathological finding (HE stained) of a representative section of the central part of the lesion (Fig. 11.4b).
- The tumor cells with swollen nuclei are noted to form irregular glandular tubules and can be diagnosed as WDA, T1-M (Fig. 11.4b).
- The pathological finding in the central part of the lesion shows an invasion of tumor into the submucosal layer, with the invasion depth of SM1 (400 μ m) (Fig. 11.4c).

The depression marked by the green arrows in the oral side of the lesion extending like a groove was also a part of the lesion. In addition, MDA (tub2) was noted in part, and its surface was covered by nonneoplastic mucosa (Fig. 11.5).

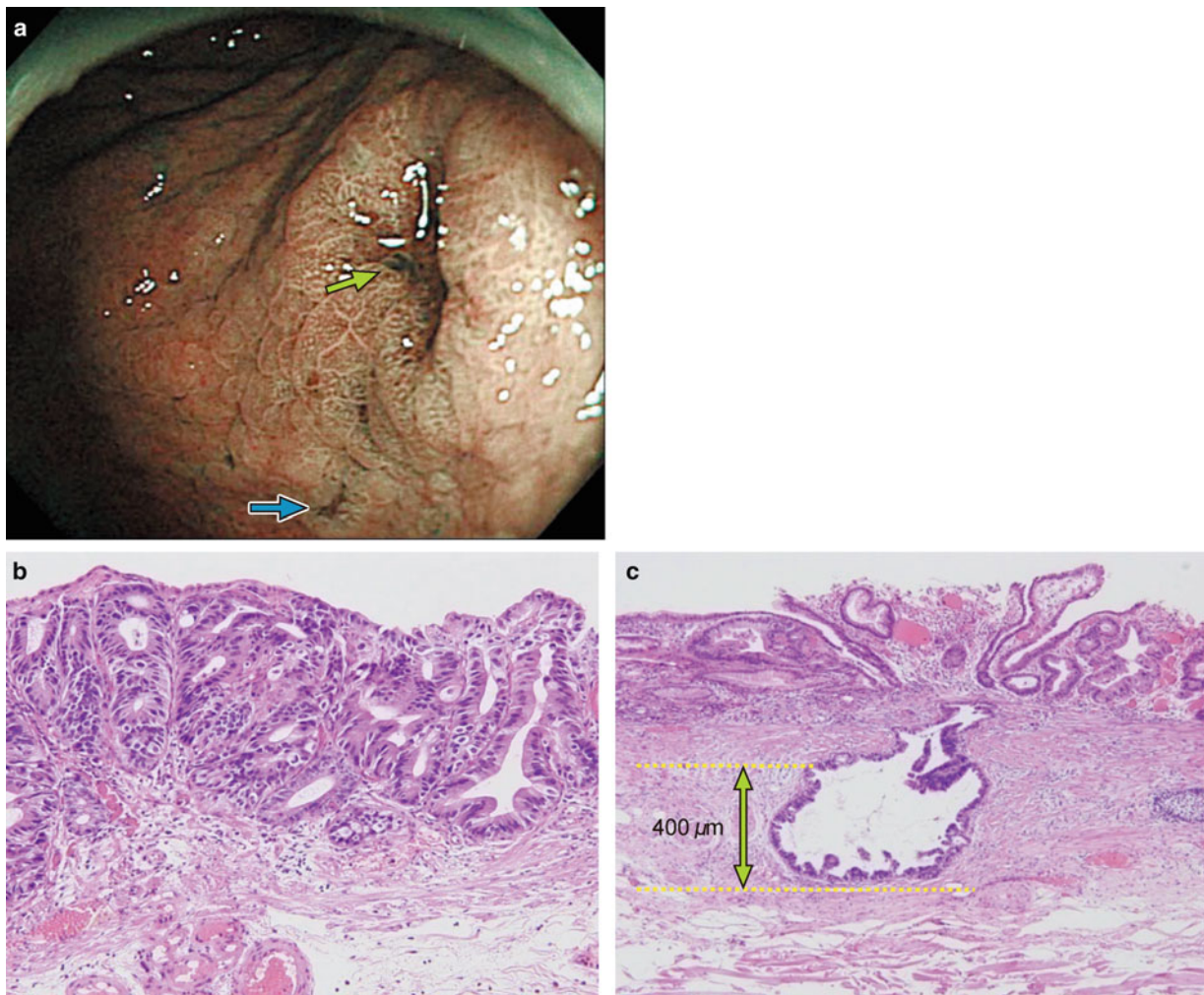


Fig. 11.4 NBI endoscopic image (b) Histological image of the lesion (c) Histological image of the central part of the lesion

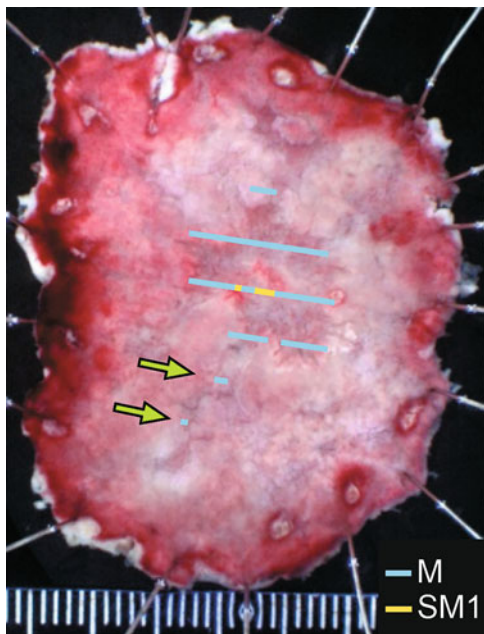


Fig. 11.5 Mapping of the cancer distribution projected on the freshly resected specimen

The protuberant part within the depression is shown in Fig. 11.6a. (The white dotted line represents the section line sliced on the resected specimen projected onto the endoscopic image on the left side. The yellow line represents the part shown by the microscopic image on the right side. The light blue line on the endoscopic image shows the extent of the intramucosal cancer.)

The microscopic image is shown by the direction of the red arrow (Fig. 11.6b).

The central part of the depression observed by NBI magnified endoscopy is WDA (tub1) (Fig. 11.7a).

The depression extending to the oral side is also well-differentiated adenocarcinoma (tub1) (Fig. 11.7b).

Conclusive Diagnosis

Gastric adenocarcinoma, tub1 >> tub2, T1 (SM1:400 μm), ly0, v0, LM(-), VM(-), pType 0-IIc, 19 × 12 mm, U, Post.

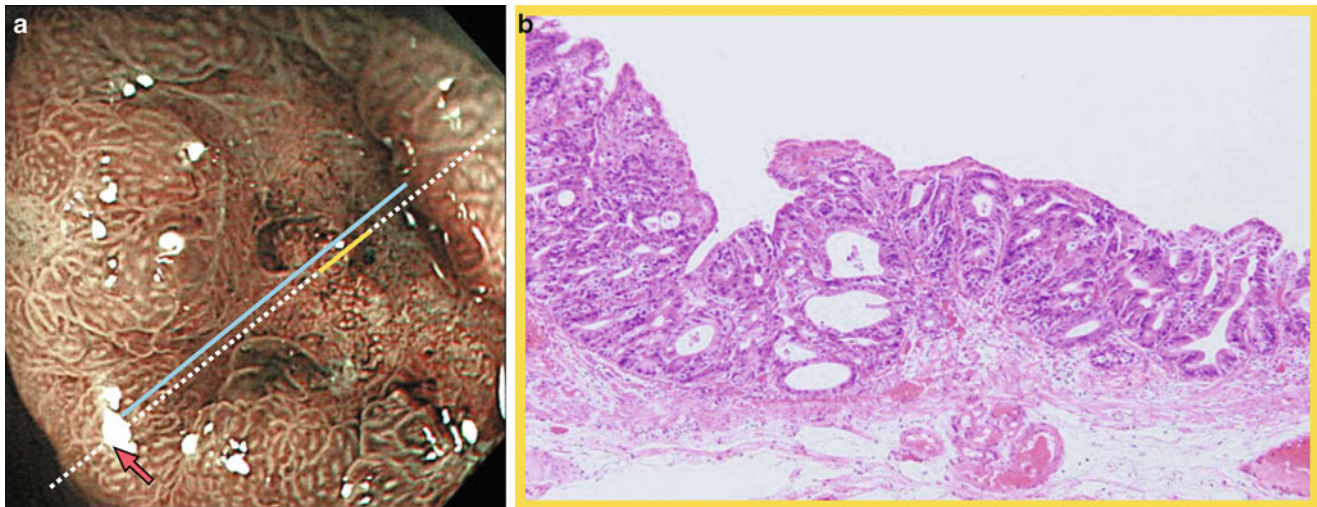


Fig. 11.6 (a) The endoscopic image of the protuberant part within the depression. (b) The microscopic image of the protuberant part within the depression

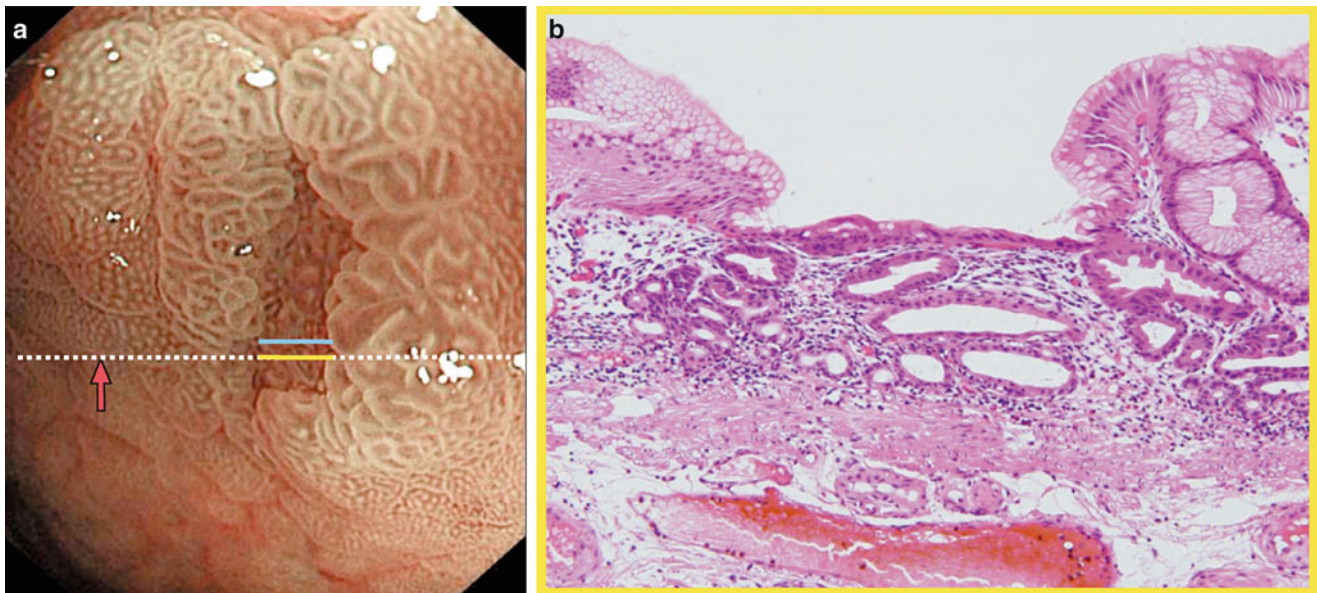


Fig. 11.7 (a) The endoscopic image of the central part of the depression. (b) The microscopic image of the central part of the depression

Summary

The conclusive diagnosis was gastric well- to MDA, T1b-SM1(:400 μ m), pType 0-IIc, 19 \times 12 mm, U, Post. Lymph duct and venous invasions were absent. Lateral and vertical margins were negative.

This case was a reddish and irregularly depressed lesion on the greater curvature of the gastric upper body. NBI magnified endoscopy revealed abnormal vessels with caliber changes and running irregularity within the lesion. It also revealed fine network patterns, making it possible to diagnose WDA (tub1). A portion of MDA (tub2), covered under nonneoplastic mucosal surface, could not be diagnosed by NBI magnified endoscopy. Since the depression was even without focal thickness, it was difficult to diagnose the lesion as SM invasive cancer. The depression extending to the oral side showed abnormal vessels, making it possible to diagnose this part as WDA (tub1).