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The role of magnification endoscopy in the early diagnosis of gastric signet ring cell carcinoma

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Keywords: Magnification. Endoscopy. Gastric. Cancer.

Dear Editor,

We present the case of a 67-year-old female referred to our outpatient clinic presenting dyspepsia. Gastroscopy was performed, showing antral gastritis. Random biopsies were taken, which were positive for poorly differentiated Lauren's diffuse gastric adenocarcinoma. Narrow-band imaging gastroscopy was performed, combining random and targeted biopsies, with negative results. The study was completed with echoendoscopy and thoraco-abdominal-pelvic computed tomography (CT) scan, showing no relevant pathological findings.

Control endoscopy was performed after 12 months, showing no macroscopic lesions. Random biopsies were repeated, which were positive for diffuse gastric adenocarcinoma. Gastroscopy with conventional chromoendoscopy was performed, showing a completely flat area of approximately 2 cm in diameter in the body-antrum junction, well delimited in the greater curvature and no indigo carmine staining was observed (Fig. 1). Electronic magnification was performed, showing

disruption of the crypt pattern and aberrant neovessels (Figs. 2 and 3). Targeted biopsies were taken, which were positive for poorly differentiated gastric adenocarcinoma. The case was discussed in a multidisciplinary session and subtotal gastrectomy was performed.

Discussion

Magnification endoscopy offers a better performance for diagnosing early gastric cancer than white light endoscopy (1). It allows the identification of patterns that can predict malignancy, such as distortion of the mucosal glandular pattern or aberrant proliferation of neovessels (2). Once the diagnosis has been established, assessing the depth of invasion has great clinical relevance, as it guides therapeutic decisions. Studies such as that of Zhou et al. (3) underline the usefulness of linear echoendoscopy in this process.

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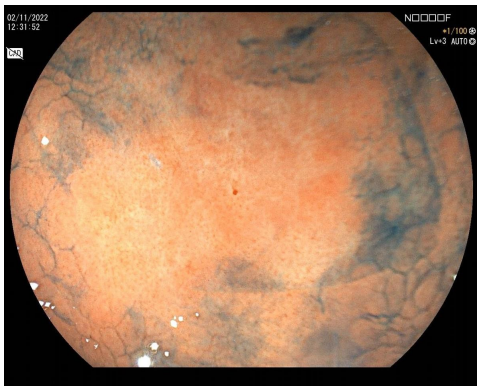

Fig. 1. Completely flat area in the body-antrum junction not stained with indigo carmine.

Fig. 2. Detail of the transition between normal gastric mucosa and area with aberrant proliferation of neovessels suggestive of malignancy. Image obtained using electronic magnification.

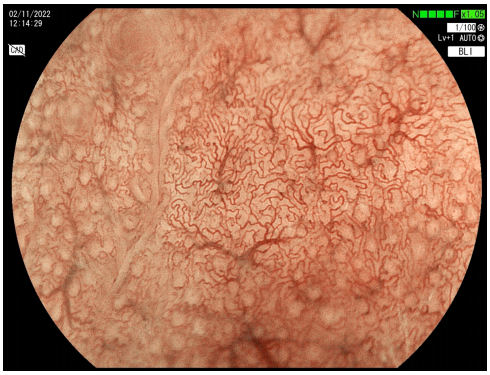

Fig. 3. Detail of proliferative area with aberrant neovessels. Targeted biopsies were positive for poorly differentiated gastric adenocarcinoma. Image obtained using electronic magnification.