Magnifying endoscopy findings in follicular lymphoma of the rectum using narrow band imaging

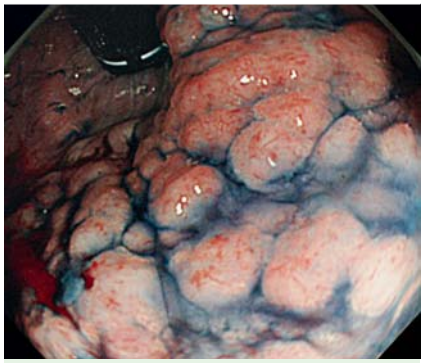

Fig. 1 Colonoscopy findings following indigo carmine spraying, in a 56-year-old woman with rectal bleeding.

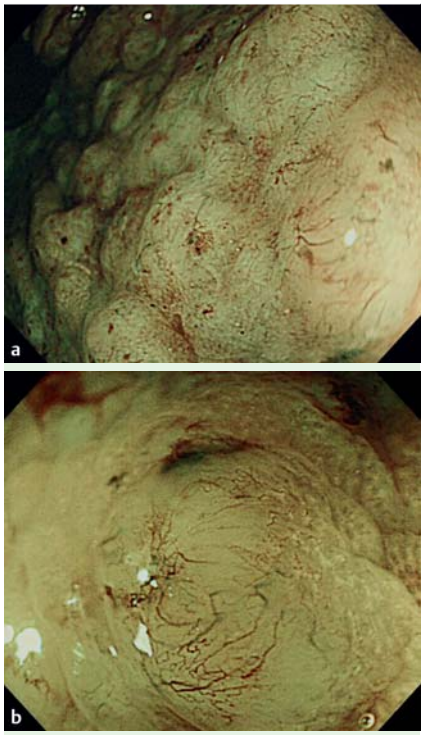

Fig. 2 Large area of irregular microvasculature on the surface of the granule (narrow-band imaging [NBI] view). **b** The microvessels were dilated and convoluted (magnified high-resolution NBI view).

Follicular lymphoma (FL) of the gastrointestinal tract is a rare disease [1,2]. We report a case of primary FL of the rectum, in which the characteristic endoscopic findings were observed in detail using magnifying endoscopy with narrow band imaging (NBI).

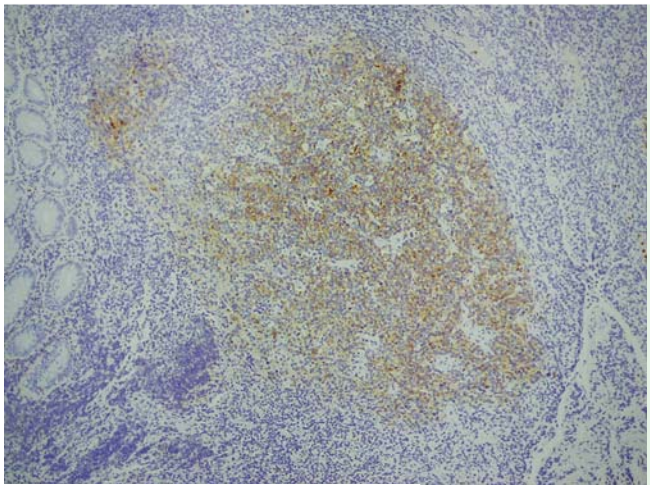

Fig. 3 Immunohistochemical analysis demonstrating that lymphoid neoplastic cells were positive for CD10.

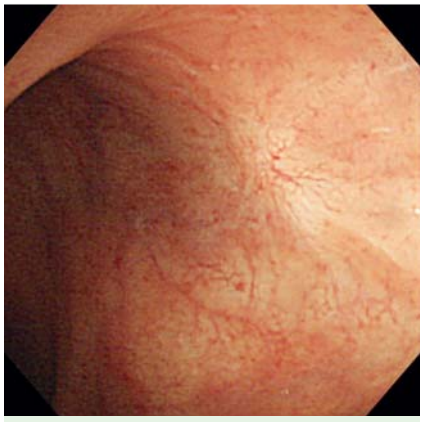

Fig. 4 Colonoscopic view of the rectum after treatment showing the absence of nodules. No cancer cells were observed in the endoscopic mucosal resection scar.

A 56-year-old woman presented with rectal bleeding. Colonoscopy revealed multiple, smooth-surfaced whitish granules in the rectum. Each granule was irregular in size and had a diameter of about 3 – 5 mm and were visualized more clearly after spraying with indigo carmine (**Fig. 1**).

By using magnifying endoscopy with NBI, large areas of irregular microvasculature were clearly observed on the surface of each granule (**Fig. 2a**), with the microvessels appearing dilated and convoluted (**Fig. 2b**).

Since the biopsy specimens were insufficient to distinguish normal lymphoid hyperplasia from FL, endoscopic mucosal resection (EMR) of the granular area was carried out to obtain bigger tissue samples. Histopathologic examination of the EMR specimens disclosed infiltration of small- to medium-sized, atypical lymphoid cells in the subepithelial layer. Immunohistochemical analysis revealed that the neoplastic lymphoid cells were positive for CD10, CD20, and bcl-2, but negative for CD3 and CD5 (**Fig. 3**).

Positron emission tomography (PET) showed increased uptake only in the rectum, and additional diagnostic procedures showed no extraintestinal infiltration of the FL. Based on these findings, a diagnosis of primary FL of the rectum was made. The patient underwent radiation therapy and chemotherapy including rituximab. After treatment, endoscopy of the rectum showed complete resolution of the nodules (**Fig. 4**).

The endoscopic findings of FL of the rectum have not been clarified. In the present case, magnifying endoscopy with NBI revealed irregular microvasculature on the surface of a FL, a feature that is never seen in lymphoid hyperplasia. NBI is a potentially useful diagnostic tool for distinguishing between normal lymphoid hyperplasia and malignant lymphoma such as rectal FL.

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Competing interests: None

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Bibliography

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