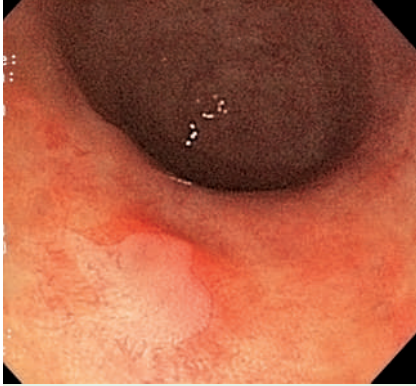
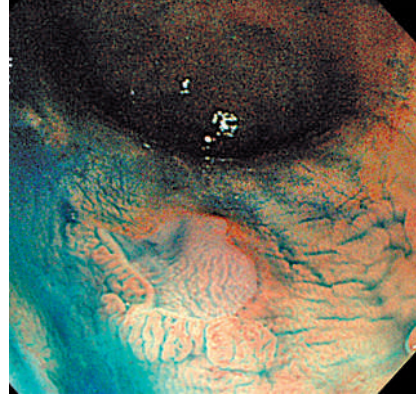


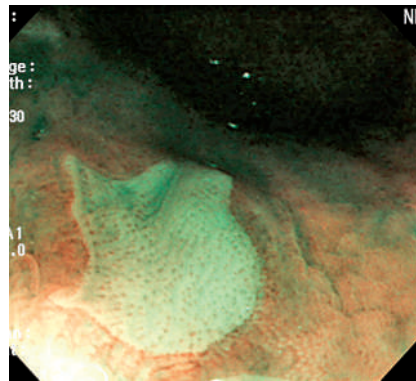
## Squamous metaplasia of the rectum associated with ulcerative colitis diagnosed using narrow-band imaging



**Fig. 1** A small whitish area with a clearly demarcated border, about 5 mm in size, was found in the lower part of rectum at colonoscopy. Small reddish spots were seen within the whitish area, which was surrounded by hyperplastic normal rectal mucosa.



**Fig. 2** Chromoendoscopy using 0.4% indigo carmine dye highlighted the border of the whitish area.



**Fig. 3** Narrow-band imaging showed dark-brown dots within this area which corresponded to the reddish spots seen at conventional colonoscopy. These dots were similar in appearance to the intraepithelial capillary loops that are seen in normal esophageal squamous epithelium.

A 61-year-old man with ulcerative colitis attended our hospital for a surveillance colonoscopy. He had been diagnosed with left-sided ulcerative colitis, which had been well controlled by oral 5-aminosalicylic acid for 6 years. No active inflammation was detected in the colon or rectum at colonoscopy, but a small whitish area with a clearly demarcated border, about 5 mm in size, was found in the lower part of rectum (▶ **Fig. 1**). Small reddish spots were seen within the whitish area, which was surrounded by hyperplastic normal rectal mucosa. Chromoendoscopy using 0.4% indigo carmine dye highlighted the demarcation line of the whitish area (▶ **Fig. 2**). Narrow-band imaging showed dark-brown dots corresponding to the reddish spots seen in the conventional view, and these were considered to resemble the intraepithelial capillary loops observed in normal esophageal squamous epithelium (▶ **Fig. 3**) [1]. A biopsy specimen was taken from the whitish area for histological evaluation, and this was reported as squamous-cell epithelium without dysplasia. A final diagnosis of squamous metaplasia associated with ulcerative colitis was made. Squamous metaplasia in the colorectum is very rare. In most cases this abnormality is found in the rectum or sigmoid colon

[2]. The presence of squamous epithelium in the colorectum is presumed to represent proliferation of reserve cells after mucosal injury, heterotopic nests of squamous epithelium, or secondary squamous metaplasia [3]. Squamous metaplasia without dysplasia has been reported in the setting of ulcerative colitis, usually in the distal rectal mucosa, but its characteristic endoscopic appearance has been described only rarely [2]. A finding of a thin whitish area with a distinct margin at conventional colonoscopy is reported to

be a clue to the diagnosis [4,5]. Lugol chromoendoscopy has been used for confirmation of the conventional colonoscopic findings [4]. Recently, narrow-band imaging has been developed as a new endoscopic technique for improved visualization of mucosal surfaces and capillary networks without the use of dyes. In this case, brownish dots detected by narrow-band imaging within the whitish area mimicked the appearance of intraepithelial capillary loops seen in normal esophageal squamous epithelium, and so narrow-band imaging predicted the histology.

Although the progression of metaplasia to dysplasia to carcinoma has not yet been established for primary squamous-cell colorectal carcinoma because of its rarity, sporadic cases of squamous metaplasia associated with dysplasia and/or primary squamous-cell carcinoma have been reported [2], and this patient should therefore be carefully followed up. Narrow-band imaging with magnification is a simple and effective method that can be used to detect the presence of the morphological changes of intraepithelial capillary loops for cancer surveillance.

Endoscopy\_UCTN\_Code\_CCL\_1AD\_2AD

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## Bibliography

**DOI** 10.1055/s-2007-966861  
*Endoscopy* 2008; 40: E45–E46  
© Georg Thieme Verlag KG Stuttgart · New York ·  
ISSN 0013-726X

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