

Useful endoscopic findings for early diagnosis of ulcerative colitis associated colorectal cancer

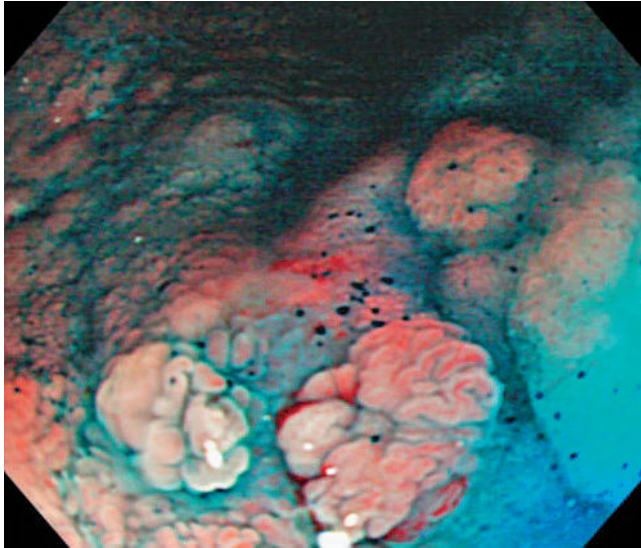


Fig. 1 Conventional endoscopy (Indigo carmine dye spraying) in case 1. The cancer was located in the rectum. Through conventional endoscopy, the cancerous lesion was detected as a villous, flat elevation.

Ulcerative colitis is a chronic inflammatory bowel disorder associated with a high risk of colorectal cancer [1]. Endoscopic diagnosis of early ulcerative colitis-associated colorectal cancer or pre-cancerous lesions is very difficult [2–4]. We report three cases with early-stage colorectal cancer or dysplasia examined with conventional endoscopy, magnified endoscopy and/or endoscopic ultrasonography (EUS).

Case 1 (● **Fig. 1**) was a 48-year-old woman with the total colitis type ulcerative colitis; the disease duration was 29 years. Through conventional endoscopy, the cancerous lesion was detected as a villous, flat elevation. In the examination using EUS, the cancerous lesion was observed as a hypoechoic area. Because the hypoechoic area included the cancer itself and concomitant inflammatory cell invasions and fibrosis, the borderline between the neoplastic and non-neoplastic lesion was unclear, making it difficult to evaluate the invasion depth. Histopathologic diagnosis was well-to-moderately differentiated adenocarcinoma and the invasion extended to the muscularis propria.

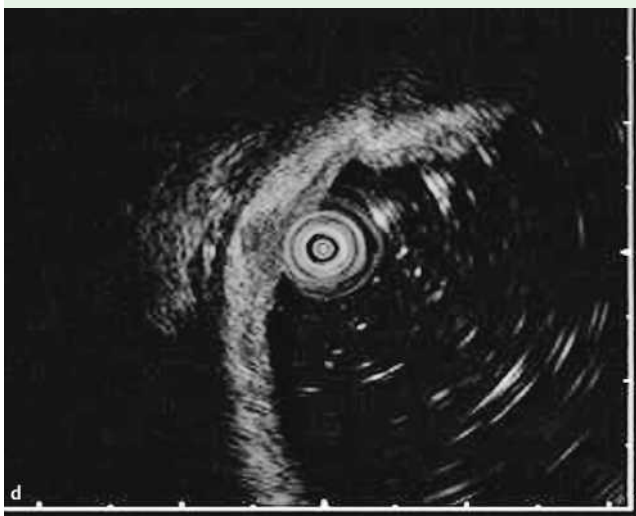
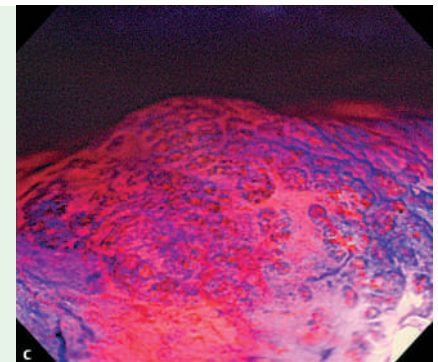
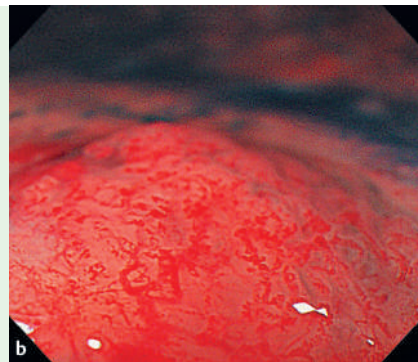
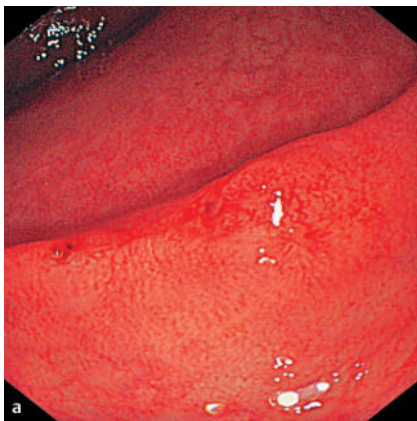


Fig. 2 Case 2 results. **a** Through conventional endoscopy, the cancerous lesion was detected as a flat elevation with capillarectasia; the cancer was located in the rectum. **b, c** Using magnified endoscopy, the V_N pit patterns in the Kudo classification were mainly observed in the cancerous lesion (**c**), and the capillarectasia was emphasized (**b**). **d** In the examination with endoscopic ultrasound, a hypoechoic area was observed.

Case 2 (● **Fig. 2 a–d**) was a 55-year-old man with the left-sided colitis type of ulcerative colitis; the disease duration was 20 years. Through conventional endoscopy, the cancerous lesion was detected as a flat elevation. Through magnified endoscopy, the V_N pit patterns [5] were mainly observed in the cancerous lesion and the capillarectasia was emphasized. In the examination with EUS, a hypoechoic area extending to the submucosa was observed. Histopathologic diagnosis was moderately to poorly differentiated adenocarcinoma, and invasion extended to the submucosa.

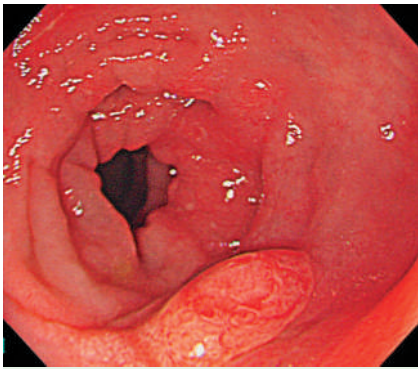


Fig. 3 Conventional endoscopy in case 3 showed the cancer located in the descending colon. The cancerous lesion was detected as a flat elevation with redness.

Case 3 (● **Fig. 3**) was a 67-year-old man with the total colitis type of ulcerative colitis; the disease duration was 9 years. Through conventional endoscopy, the lesion was detected as a flat elevation with remarkable redness. Through magnified endoscopy V_N or V_I pit patterns in the central area of the flat elevation and IV

pit patterns in the surrounding area were observed. Histopathologic diagnosis was low-grade dysplasia.

Endoscopy_UCTN_Code_CCL_1AD_2AB

Endoscopy_UCTN_Code_CCL_1AD_2AD

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Bibliography

DOI 10.1055/s-2007-995494

Endoscopy 2008; 40: E71–E72

© Georg Thieme Verlag KG Stuttgart · New York · ISSN 0013-726X

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