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 precancerous 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 ultrasound (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.

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 VN pit patterns [5] were mainly observed in the cancerous lesion (c), and the capillarectasia was emphasized (b). 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 VN pit patterns [5] were mainly observed in the cancerous lesion (c), and the capillarectasia was emphasized (b). In the examination with endoscopic ultrasound, a hypoechoic area was observed. Histopathologic diagnosis was moderately to poorly differentiated adenocarcinoma, and invasion extended to the submucosa.
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_l 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.

References

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.