



Figure 1 Colonoscopic view of the flat, reddish lesion that was observed in the sigmoid colon. The margin of the lesion could not be clearly visualized.

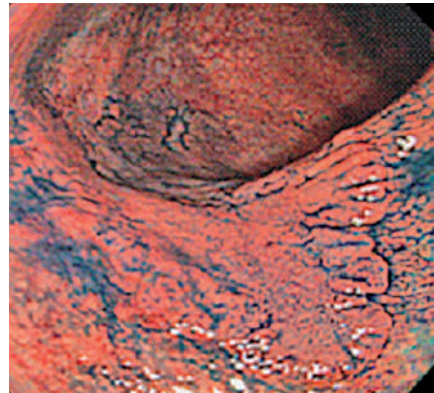


Figure 2 The margin of the lesion became much clearer after the application of indigo carmine dye.

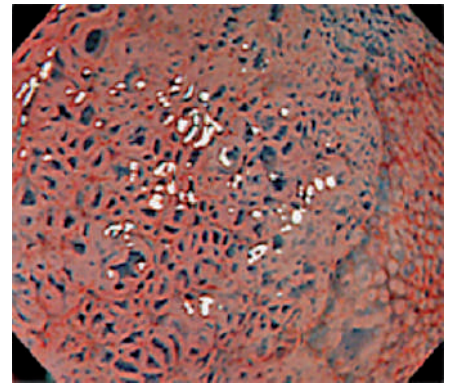


Figure 3 Magnifying chromoendoscopy revealed a noninvasive pit pattern, similar to a type IIIIL pit pattern. The lesion was treated by endoscopic submucosal dissection (ESD).

Patients with longstanding and extensive ulcerative colitis may be entered into a surveillance program [1], but the detection of ulcerative colitis-related colorectal neoplasia ("colitic cancer") during conventional colonoscopy is difficult. Because of this, chromoendoscopy [2] and magnifying chromoendoscopy [3] have recently been proposed as adjuvant techniques for the detection of this type of colorectal neoplasia.

A 35-year-old man with a 21-year history of extensive ulcerative colitis underwent a surveillance colonoscopy. A flat, reddish lesion was detected in the sigmoid colon (Figure 1). After the application of indigo carmine dye, the margin of the lesion could be clearly visualized and the lesion appeared to be a flat adenoma with a broad base, resembling a laterally spreading tumor (Figure 2). Magnifying chromoendoscopy showed a "noninvasive" pit pattern [4], suggesting that this was an intramucosal neoplastic lesion (Figure 3). It was therefore decided to treat this lesion and the surrounding normal-looking mucosa (which had a type I pit pattern) by endoscopic submucosal dissection [5]. Histopathological examination of the resected specimen showed a well-differentiated adenocarcinoma with submucosal and lymphatic invasion; the depth of invasion was 500 μ m from the muscularis

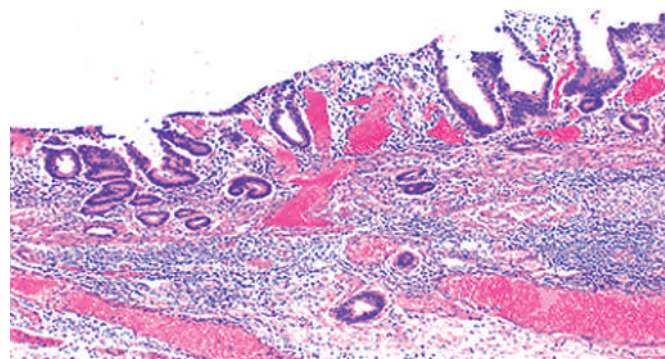
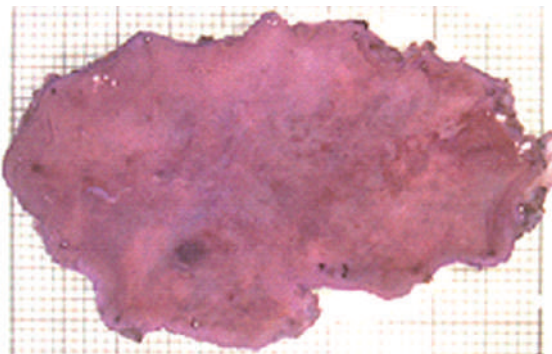


Figure 4 Histopathological examination of the resected specimen confirmed the lesion to be a well-differentiated adenocarcinoma with submucosal and lymphatic invasion. The depth of invasion was 500 μ m from the muscularis mucosa (hematoxylin & eosin stain).

mucosa (Figure 4). Immunostaining for p53 was diffusely positive in most of the lesion and the adjacent mucosa also showed high-grade dysplasia. On the basis of these histopathological findings, this lesion was diagnosed as a colitic cancer, and a total colectomy was performed. Histopathological examination of the mucosa surrounding the scar after endoscopic submucosal dissection revealed high-grade dysplasia (Figure 5, 6).

This colitic cancer was diagnosed at an early stage by chromoendoscopy and magnifying chromoendoscopy, but the extent of tumor invasion was misdiagnosed. Histopathologically, the structure of the glands, especially the density of the glands of the neoplastic mucosa adjacent to the main lesion, resembled that of



Figure 5 Macroscopic examination of the resected specimen revealed inactive ulcerative colitis with mucosal atrophy, with no evidence of a neoplastic lesion. However, histopathological examination revealed high-grade dysplasia in the mucosa surrounding the post-ESD scar. Histopathological examination of the ascending colon also revealed two areas of low-grade dysplasia.

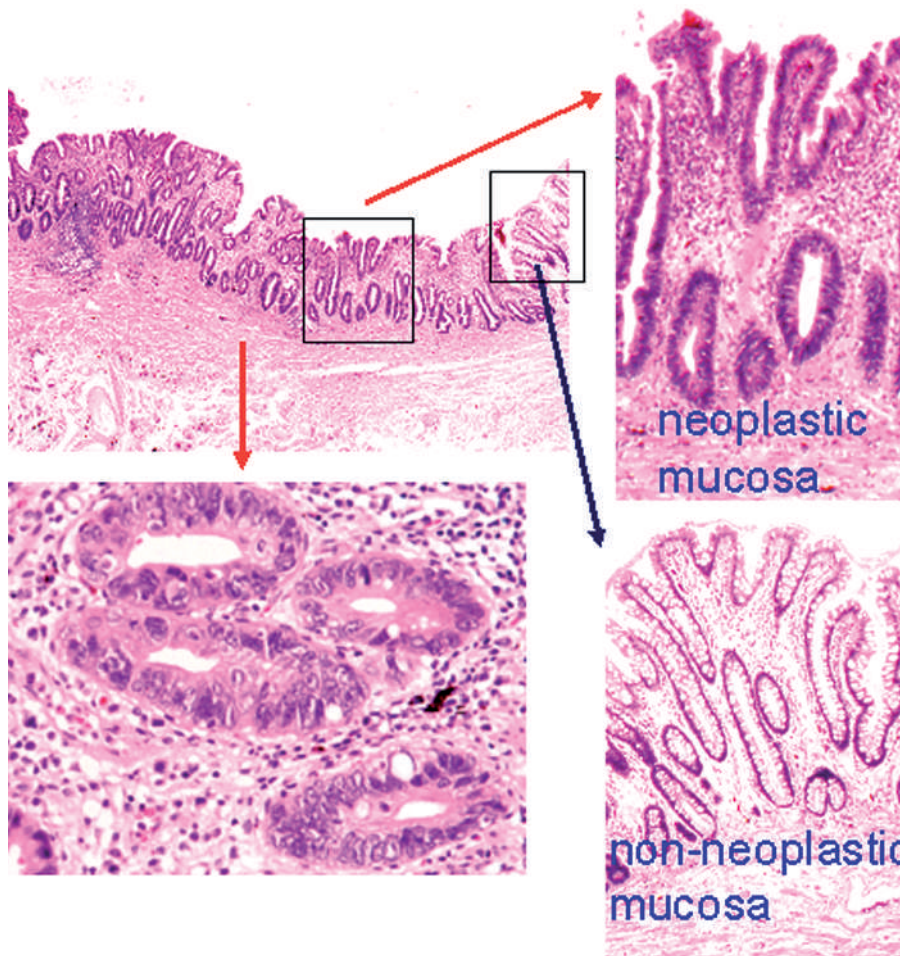


Figure 6 Histopathological examination revealed high-grade dysplasia in the mucosa surrounding the scar after ESD. The structure of the glands, especially the density of the glands of the neoplastic mucosa, resembled that of non-neoplastic colonic mucosa (hematoxylin & eosin stain).

non-neoplastic mucosa (Figure 6). These results suggest that chromoendoscopy, even with pit pattern analysis, has its limitations when used in the diagnosis of intramucosal neoplastic lesions associated with ulcerative colitis.

Endoscopy_UCTN_Code_CCL_1AD_2AC

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