

# Combination of Endoscopic Resection and Heat Ablation Is a Promising Endoscopic Therapy for Adenoma-Like Dysplastic Lesion in Chronic Ulcerative Colitis

Kayoko Matsumura Hiroshi Nakase Tsutomu Chiba

Department of Gastroenterology and Hepatology, Graduate School of Medicine, Kyoto University, Kyoto, Japan

## Key Words

Ulcerative colitis · Dysplastic lesion · Endoscopic therapy

## Abstract

In January 2007, a 74-year-old male was admitted to our hospital for treatment of an adenoma-like dysplastic lesion (ALM). He had a four-year history of ulcerative colitis. Endoscopic findings revealed that a protruded lesion with an approximate size of 3 cm at the splenic flexure was surrounded by pseudopolyps. Lifting of the tumor was poor despite injection of normal saline around it. Therefore, the combination of endoscopic resection and heat ablation therapy with argon plasma coagulation was performed. Histopathological examination of the resected specimen showed tubular adenoma with high-grade atypia. Endoscopic examination 15 months after this treatment revealed no occurrence of ALM. Whether or not there is a possibility of local recurrence after ablation therapy in addition to endoscopic resection performed in this case remains unclear. However, this endoscopic therapy is a promising option for ALM in chronic ulcerative colitis.

## Case Report

In January 2007, a 74-year-old male was admitted to our hospital for treatment of adenoma-like dysplastic lesion (ALM). Four years before admission, he had been diagnosed with ulcerative colitis (UC) endoscopically and histologically; there were extensive colonic lesions. He had a history of chemoradiotherapy for pharynx and pulmonary cancer five years earlier. He had been treated with

3,000 mg of oral salazosulphapyridine and had attended follow-up colonoscopic examination every year. Disease activity of his UC remained indolent on admission.

Endoscopic findings revealed pseudopolyps and scar formations through the entire colon and a protruded lesion with an approximate size of 3 cm at the splenic flexure surrounded by pseudopolyps ([fig. 1a](#)). Histological findings of the biopsy specimen from this lesion on previous endoscopic examination revealed tubular adenoma. Lifting of the tumor was poor despite injection of normal saline around it. Therefore, the first procedure was performed by endoscopic resection with snare. Additionally, remnant neoplastic tissue was treated with argon plasma coagulation (APC) ([fig. 1b](#)). Histopathological examination of the resected specimen showed tubular adenoma with high-grade atypia. Endoscopic examination 15 months after this treatment revealed no occurrence of ALM ([fig. 2](#)).

## Discussion

Patients with long-standing or extensive UC are at increased risk of developing cancer [1, 2]. Therefore, colonoscopic surveillance in patients with long-standing UC is highly recommended. The main objective of surveillance colonoscopy in UC is to detect neoplasia at a surgically curative and preferably preinvasive stage. In addition, endoscopic differentiation of an ALM and dysplasia-associated lesion mass in chronic UC (CUC) is a critical issue, because ALM can be indicated for endoscopic treatment [3–5]. However, mucosal and submucosal fibrosis induced by long-standing inflammatory activity in CUC makes it difficult to perform endoscopic resection of ALM. Recently, Smith et al. reported the effectiveness of a combined endoscopic mucosal resection and cap-assisted submucosal dissection technique for adenoma-like mass in CUC [6]. Exactly, ESD-assisted EMR technique should be a promising treatment for ALM in CUC to avoid unnecessary surgical treatment. On the other hand, we sometimes encountered difficult cases of ALM in patients with CUC even by ESD-assisted EMR technique. We herein presented an UC patient with ALM successfully treated by the combination of endoscopic resection and heat ablation therapy.

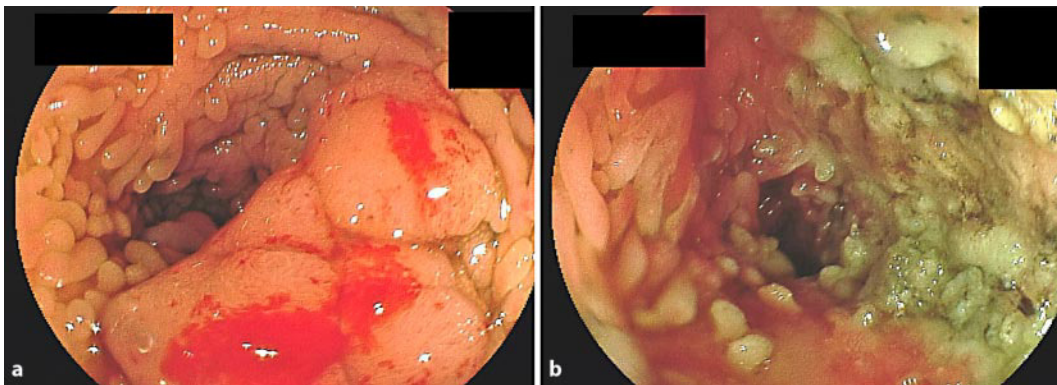
ALM observed in this case was classified into sessile type (Is) according to the Paris workshop guidelines for gross morphological classification of neoplastic colorectal lesion in UC [7]. Histological findings of the biopsy specimen revealed tubular adenoma. In addition, the patient was of old age and had a medical history of chemoradiotherapy for pharynx and pulmonary cancer. Therefore, we selected endoscopic treatment to avoid surgery despite the size of the tumor. Exactly, this tumor might be indicated for ESD-assisted EMR technique. However, the lateral margin of this tumor was unclear because of surrounding pseudopolyps, and lifting sign was also poor. Taken together, we performed the combination of endoscopic resection and heat ablation therapy with APC. As a result, no local recurrence of ALM was observed 15 months after the combination therapy. Whether or not the possibility of local recurrence after ablation therapy in addition to endoscopic resection performed in this case is higher compared to ESD-assisted EMR technique remains unclear. In this regard, surveillance colonoscopy in patients with CUC having experienced endoscopic treatment for their colonic tumors should be performed routinely for detecting early local recurrence of colonic tumor and newly emerging colonic lesions either after ablation therapy or ESD-assisted EMR.

In conclusion, we report a UC patient with ALM successfully removed by the combination of endoscopic resection and heat ablation therapy with APC. The development of endoscopy enables us to find neoplastic lesions in CUC which can be indicated for endoscopic therapy. Thus, gastroenterologists should take various therapeutic options into consideration when treating cases of neoplastic lesions in CUC.

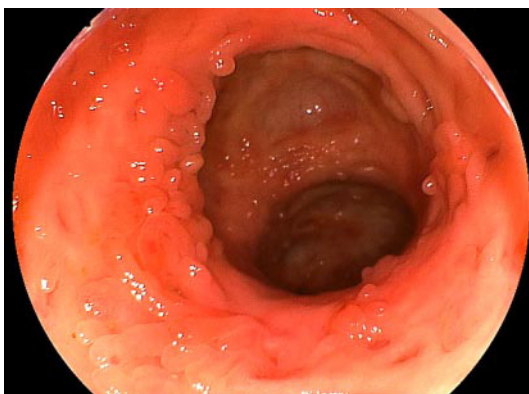
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**Fig. 1.** **a** Endoscopic examination showing the protruded tumor with a size of approximately 3 cm surrounded by pseudopolyps. **b** Endoscopic view after ablation therapy in addition to endoscopic resection.



**Fig. 2.** Endoscopic examination 15 month after endoscopic therapy showing no local recurrence of ALM.



## References

- 1 Itzkowitz SH, Present DH: Consensus conference: colorectal cancer screening and surveillance in inflammatory bowel disease. *Inflamm Bowel Dis* 2005;11:314–321.
- 2 Chambers WM, Warren BF, Jewell DP, Mortensen NJ: Cancer surveillance in ulcerative colitis. *Br J Surg* 2005;92:928–936.
- 3 Hurlstone DP, Brown S: Techniques for targeting screening in ulcerative colitis. *Postgrad Med J* 2007;83:451–460.
- 4 Engelsgjerd M, Farraye FA, Odze RD: Polypectomy may be adequate treatment for adenoma-like dysplastic lesions in chronic ulcerative colitis. *Gastroenterology* 1999;117:1288–1294.
- 5 Hurlstone DP, Sanders DS, Hunter, et al: Endoscopic mucosal resection for flat neoplasia in chronic ulcerative colitis: can we change the endoscopic management paradigm? *Gut* 2007;56:838–846.
- 6 Smith LA, Baraza W, Tiffin N, et al: Endoscopic resection of adenoma-like mass in chronic ulcerative colitis using a combined endoscopic mucosal resection and cap assisted submucosal dissection technique. *Inflamm Bowel Dis* 2008;14:1380–1386.
- 7 Paris Workshop Participants: The Paris endoscopic classification of superficial neoplastic lesions: esophagus, stomach and colon. *Gastrointest Endosc* 2002;58:S3–S43.