

Knife-assisted resection of flat dysplastic lesions in colitis

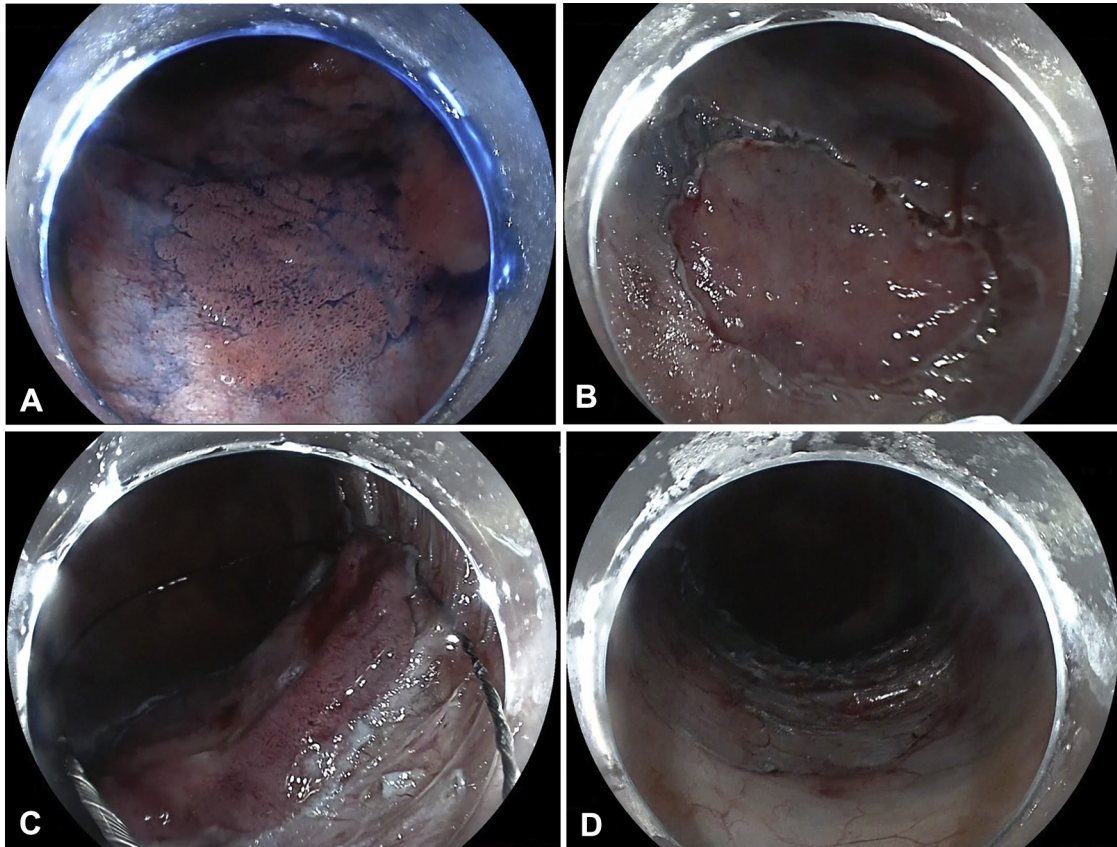


Figure 1. **A**, Indigo carmine assessment of flat dysplastic lesion. **B**, Circumferential mucosal trench created using an endoscopic knife. **C**, A 20-mm snare is used to snare resect the flat lesion. **D**, Resection base.

The risk of colonic neoplasia is increased in inflammatory bowel disease. Flat dysplastic lesions in colitis can be difficult to detect and challenging to resect endoscopically. Conventional EMR has been used, but because these lesions are often flat morphologically, the snare slips off. Endoscopic submucosal dissection (ESD) has been shown to be able to resect flat lesions; however, they carry a high perforation rate outside the rectum. Knife-assisted snare resection (KAR) is a novel technique that combines the principles of EMR and ESD. We evaluate the safety and efficacy of this technique in resecting flat dysplastic lesions in colitis, and we demonstrate the technique in [Video 1](#). The data pertaining to all KARs undertaken by a single endoscopist in our institution from 2012 to 2014 were prospectively compiled in a predesigned database. Two independent researchers interrogated the database.

Endoscopic follow-up was performed to identify recurrence. Nine patients underwent KAR during this period. Eight patients had ulcerative colitis, and 1 had Crohn's colitis. The mean polyp size was 29 mm (range, 10-60 mm). Scarring was noted in 89% of resections despite no previous resection attempts. En bloc resection was achieved in 7 patients (78%). Endoscopic curative resection was achieved in 7 patients, and 1 patient is awaiting endoscopic follow-up. One patient experienced a delayed perforation, which was managed surgically. Histologic assessment of the resected polyps revealed 8 adenomas with low-grade dysplasia and 1 cancer. Flat dysplastic lesions in colitis are difficult to detect and challenging to resect endoscopically by conventional methods. We have demonstrated that KAR as a novel technique is safe and effective in resecting these lesions ([Fig. 1](#)). The learning curve of KAR is not as steep as

Written transcript of the video audio is available online at www.VideoGIE.org.

that of ESD, and, therefore, we believe that it is a practical endoscopic resection technique for flat dysplastic lesions in inflammatory bowel disease.

DISCLOSURE

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