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CASE REPORT | ENDOSCOPY

Endoscopic Band Ligation For Treatment of a Colonic Polyp Extending Into the Colonic Diverticulum

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Abstract

A 66-year-old male was referred for the treatment of a polyp extending into a diverticulum. Endoscopic band ligation (EBL) was used to resolve the diverticulum. The banded diverticulum resolved and scar formation was observed 2 months after EBL. Residual small polypoid lesions were resected using endoscopic mucosal resection (EMR), and no complications occurred after treatment.

Introduction

Endoscopic mucosal resection (EMR) is indicated in the treatment of large colorectal polyps because it is less invasive than surgical resection.[1,2] However, polyps sometimes extend into the colonic diverticulum, and EMR of such a polyp is challenging due to risk of perforation during polyp resection. Endoscopic band ligation (EBL) has been used for the hemostasis of colonic diverticular hemorrhage, after which colonic diverticula been reported to resolve.[3-6]

Case Report

A 66-year-old male who previously underwent EMR for a colonic polyp presented with recurrence of the polyp. Colonoscopy revealed small polypoid lesions near a diverticulum in the ascending colon (Figure 1A). A scar was observed between the polypoid lesions because of the previous EMR. Indigo carmine dye spray during colonoscopy revealed a type IIIL (large or long) pit pattern on the polyp surface, and the lesion was classified as a tubular adenoma (Figure 1B).[7,8] Due to polyp extension into the diverticulum, successful treatment with EMR was unlikely, so EBL was used to resolve the diverticulum.

The endoscope was reinserted after attaching a band-ligator device (MD-48710 EVL Device, Sumitomo Bakelite Co. Ltd., Tokyo, Japan) to the tip of the endoscope (Figure 1C). The colonic diverticulum was suctioned into the suction cup, and the elastic O-band was released. The diverticulum was everted after EBL (Figure 1D). The banded diverticulum resolved, and scar formation was observed on follow-up colonoscopy performed 2 months after EBL (Figure 1E). Residual small polypoid lesions were resected using EMR, and additional electrocautery was performed at the site (Figure 1F), without perforation or bleeding complications.

Discussion

EMR has a high risk of perforation when applied to polyps extending into a diverticulum, which lacks a muscle layer. Banded specimens also should not be endoscopically resected, as banded tissue sometimes contains muscularis propria and resection could lead to perforation.[6,9] EBL has also been used for the hemostasis of

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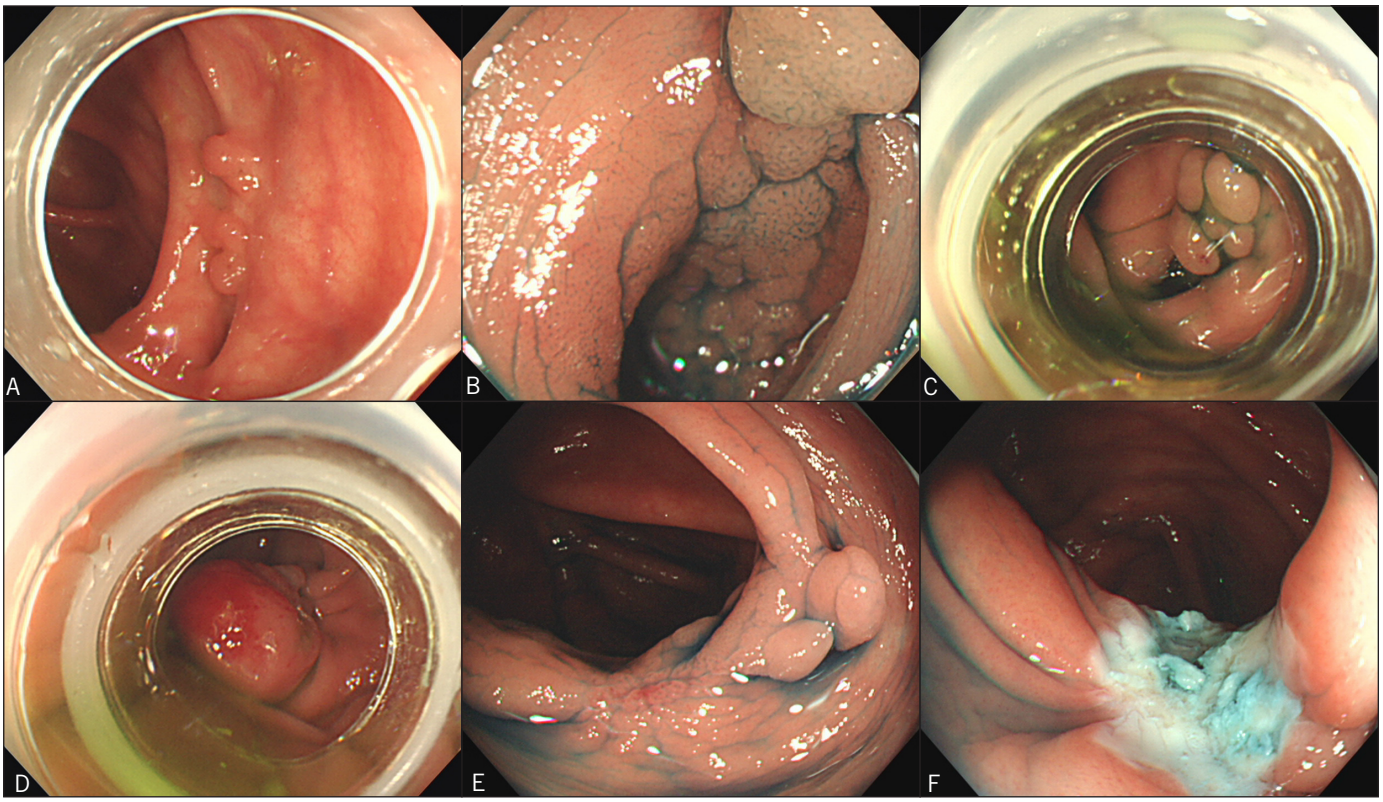

Figure 1. (A) Endoscopic view of small polypoid lesions with scar formation near the diverticulum. (B) Endoscopic view of the polyp after indigo carmine dye spraying. The colonic polyp exhibiting a type IIIL pit pattern extended into the diverticulum. (C) A band-ligator device was attached to the tip of endoscope. (D) Endoscopic view of the everted diverticulum after EBL. (E) The banded diverticulum resolved, and scar formation at the site was observed on follow-up colonoscopy. (F) Residual small polypoid lesions were resected using EMR, and additional electrocautery was performed at the site.

colonic diverticular hemorrhage.[3-6] The muscularis propria in the right colon and the submucosa in the left colon are included by O-band and are replaced with granulation tissue after EBL.[9,10] Therefore, it has been reported that the use of EBL is safe for the resolution of colonic diverticula.[3-6] It is important to note that pathology of the banded specimen cannot be assessed using this treatment because the banded specimen becomes necrotic and falls off the colonic wall after EBL. Therefore, magnifying endoscopy should be applied to the lesion to rule out submucosal carcinoma before EBL. EBL should be considered a safe and effective method to prepare colonic polyps extending into the diverticulum for EMR.

Disclosures

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