



Successful treatment of colorectal anastomotic stricture by using sphincterotomes

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Colorectal or colocolic anastomotic stricture is a common complication after colorectal surgery. Traditionally, endoscopic balloon dilation technique was used for those patients with symptomatic stricture. The use of electroincision (radial incisions of the scar) along with pneumatic balloon dilation was reported with good result in literature. We present a novel method for relieving colorectal anastomotic stricture by using sphincterotomes, which is indicated for use in the cannulation of the biliary ducts and the transendoscopic sphincterotomy of the papilla of Vater and the sphincter of Oddi. The use of sphincterotomes in upper GI tract anastomotic stricture was reported before, but the experience in managing lower GI tract was pending. Based on our preliminary report, sphincterotomes can be an effective and safe treatment option for colorectal anastomotic stricture.

Keywords: colorectal anastomosis, stricture, sphincterotomes, colorectal surgery, colonoscopy

INTRODUCTION

Anastomotic stricture is a relatively common complication of low anterior resection that requires further management if an obstruction occurs (1). Direct digital dilatation or transrectal surgical treatment is possible if the anastomosis is located in the lower rectum. Endoscopic balloon dilatation is the most effective method for any patients on whom these lower rectum procedures cannot be performed (2–4), although repeated dilation over time is often required to achieve normal bowel function (5). Dilation can be combined with other procedures such as neodymium: yttrium–aluminum–garnet laser treatment (6), electroincision (7), and electrocautery (8). We present a novel method for relieving anastomotic stricture by using sphincterotomes, which is indicated for use in the cannulation of the biliary ducts and the transendoscopic sphincterotomy of the papilla of Vater and the sphincter of Oddi. Our preliminary report revealed that our method was easily and safely performed and the long-term result seems good.

CASE SERIES

CASE 1

A 47-year-old male patient received multiple colonoscopic reductions for sigmoid volvulus. Because of the recurrent episodes, the patient finally accepted surgery. After resection of the redundant sigmoid colon, an end-to-side colorectal anastomosis was completed with a double-stapled technique. He was later discharged in good condition with fairly regular bowel movements.

One month after discharge, the patient was hospitalized again because of abdominal pain and 7 days of constipation. Diffuse bowel dilation was noted in the X-ray study. A colonoscopy exam was performed and a stricture of colorectal anastomosis was identified, where the colonoscope was unable to pass through the anastomosis (Figure 1A). We changed the instrument to a panendoscope for using sphincterotomes (Clevercut; Olympus,

Tokyo, Japan) to release the circumferential scar of the anastomosis (Figure 1B). The other incisions were made in different directions (Figure 1C). After the procedure, a massive stool passage was noted and the obstructive symptom was relieved. Four months later, we performed another colonoscopy for surveillance. The diameter of the anastomosis had increased obviously and the underlying mucosa was growing well (Figure 1D). No more symptoms of intestinal obstruction were noted after 18-month follow up.

CASE 2

A 73-year-old male patient received low anterior resection with a double-stapled technique for rectosigmoid colon cancer. The operation and hospital course were uneventful. Constipation and abdominal fullness were complained later. The surveillance colonoscopy was performed 6 months after operation. Stricture of the anastomosis was noted and we used sphincterotomes for releasing the circumferential scar again (Figures 2A,B). The obstructive symptoms were relieved after the procedure and the lumen was markedly increased in the following-up exam (Figure 2C).

DISCUSSION

Although circular stapling anastomosis of the rectum has been used widely and has been regarded as a safe and quick technique, the development of frequent anastomotic strictures is the major postoperative complication of this procedure (9, 10). The incidence of colorectal anastomotic strictures varies from 3 to 30%, and is considered to be related to factors including radiation (11) and anastomotic leakage (12). Most of these anastomotic strictures are simple constrictions that can be successfully treated using dilation or endoscopic alternatives. However, up to 28% of patients require a surgical correction. This can be technically difficult, and a permanent colostomy is possible (13).

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