Efficacy and safety of endoscopic radial incision and cutting for benign severe anastomotic stricture after surgery for lower rectal cancer (with video)

Shozo Osera, MD,¹ Hiroaki Ikematsu, MD, PhD,¹ Tomoyuki Odagaki, MD,¹ Yasuhiro Oono, MD,¹ Tomonori Yano, MD,¹ Akihiro Kobayashi, MD, PhD,² Masaaki Ito, MD, PhD,² Norio Saito, MD, PhD,² Kazuhiro Kaneko, MD, PhD¹

Kashiwa, Japan

Surgical treatment for lower rectal cancer typically comprises intersphincteric resection (ISR), low anterior resection (IAR), and/or abdominoperineal resection.¹ However, as compared with abdominoperineal resection, ISR and LAR can prevent the need for permanent colostomy to a greater extent. With all the above-mentioned procedures, the occurrence of anastomotic strictures is a potential serious postoperative adverse event that typically requires repeated treatment. Balloon dilatation (BD) or bougie dilatation is generally performed to treat anastomotic strictures of the lower rectum; however, the frequency of restenosis is high.

Although radial incision and cutting (RIC) when using an electrosurgical insulated-tip knife has been reported to be effective for treating refractory anastomotic strictures after esophagectomy,^{2,3} there are no reports concerning the safety or efficacy of RIC for anastomotic strictures after ISR or LAR. Therefore, in this retrospective case series, we evaluated the efficacy and safety of RIC for severe anastomotic strictures in the lower rectum after ISR or LAR.

METHODS

Patients

Between December 2008 and November 2012, 405 consecutive patients underwent ISR (n = 139) or LAR (n = 266) in our hospital. In this study, we retrospectively studied the patients treated by RIC for strictures after lower rectal cancer surgery. A severe anastomotic stricture after lower rectal cancer surgery was considered in cases in which (1) an endoscope measuring 9.2 mm in diameter

Abbreviations: BD, balloon dilatation; ISR, intersphincteric resection; LAR, low anterior resection; RIC, radial incision and cutting.

DISCLOSURE: All authors disclosed no financial relationships relevant to this publication.



This video can be viewed directly from the GIE website or by using the QR code and your mobile device. Download a free QR code scanner by searching "QR Scanner" in your mobile device's app store. (GIF Q260; Olympus Medical Systems, Tokyo, Japan) could not pass through the stricture before colostomy closure and (2) difficulties in defecation, such as constipation and/or abdominal distension, were noted after colostomy closure. A stricture was defined as an area through which an endoscope could not pass or the index finger could not be inserted. The stricture was assessed radiologically as necessary. A refractory anastomotic stricture was defined as a severe stricture that was not relieved even after bougie or BD was performed more than twice. In our institution, the indication for RIC was the occurrence of refractory anastomotic strictures after lower rectal cancer surgery.

Patients' characteristics, clinical course, and adverse events, such as perforation, severe bleeding, high fever, and moderate to severe pain, were assessed. Severe bleeding was defined as that requiring blood transfusion or intervention. High fever was defined as body temperature $> 38^{\circ}$ C. Severe pain was defined as that requiring analgesic therapy.

The study protocol was approved by the medical ethics committee of our hospital, and written informed consent was obtained from all patients before RIC was performed. This study was performed in accordance with the ethical principles outlined in the Declaration of Helsinki.

RIC procedure

The RIC procedure was performed as described previously (Fig. 1).^{2,3} First, the blade of an insulated-tip IT knife (Olympus Medical Systems) was inserted into the stricture area (Video 1, available online at www. giejournal.org). Thereafter, the stricture area was incised

Copyright \circledast 2015 by the American Society for Gastrointestinal Endoscopy 0016-5107/\$36.00

http://dx.doi.org/10.1016/j.gie.2014.11.011

Received August 20, 2014. Accepted November 5, 2014.

Current affiliations: Department of Gastroenterology, Endoscopy Division (1), Department of Surgical Oncology, Colorectal and Pelvic Division (2), National Cancer Center Hospital East, Kashiwa, Japan.

Reprint requests: Hiroaki Ikematsu, MD, PhD, Department of Gastroenterology and Gastrointestinal Oncology, Endoscopy Division, National Cancer Center Hospital East, 6-5-1, Kashiwanoha, Kashiwa, 277-8577 Japan.



Figure 1. Details of the RIC method. **A**, A postoperative anastomotic stricture is visible in the lower rectum. **B**, The blade of an insulated-tip knife is inserted into the stricture area. **C**, The stricture area is incised radially with the insulated-tip knife, and the scar tissue is excised in an arc from the incision along the lumen. **D**, After the RIC procedure, the endoscope can pass through the stricture.

radially with the insulated-tip knife. Finally, scar tissue was excised in an arc from the incision along the lumen. All patients received 35 mg pethidine hydrochloride and 2 to 3 mg midazolam before starting RIC to reduce the discomfort associated with the procedure.

RESULTS

Among the 405 patients, 38 (9.4%) experienced at least 1 postoperative anastomotic stricture. These 38 patients included 26 men and 12 women with a median age of 65 years (range, 35-79 years). ISR and LAR had been performed on 26 (68.4%) and 12 (31.6%) patients, respectively.

Among these 38 patients, 7 (18.4%) developed refractory strictures and underwent dilatation with RIC (Table 1): 6 men and 1 woman with a median age of 66 years (range, 56-72 years). ISR and LAR had been performed in 4 (10.5%) and 3 (7.9%) patients, respectively. All 7 patients who underwent RIC also received a temporary colostomy as a result of the surgery. Of these, 3 patients had an existing colostomy, whereas 4 had no colostomy when they underwent RIC. The diameters of the strictures were <2, 3 to 5, and 6 to 10 mm in 4, 1, and 2 patients, respectively. With

regard to previous treatment, 5 and 2 patients had undergone bougie dilatation and BD before RIC, respectively (Table 2).

The median distance between the lower edge of the tumor and the anal verge was 4.5 cm (range, 3.5-9.0 cm). The median interval from surgery to RIC was 11 months (range, 5-44 months). The median follow-up after RIC was 27 months (range, 18-55 months). Of the 7 patients, RIC treatment was successful in 5 patients, and improved defecation was noted postoperatively based on verbal, subjective patient responses. Four of these 5 patients experienced improvement after a single RIC session, whereas the remaining patient experienced improvement after 2 RIC sessions. In the 2 patients for whom RIC was unsuccessful, it was deemed a failure after 4 and 6 RIC sessions, respectively. Thus, a total of 16 RIC sessions were performed in the 7 patients. Among the 16 RIC sessions, 14 were performed in the hospital, with a median stay of 3 days (range, 2-5 days), whereas 2 sessions were performed in the outpatient setting. The median procedure time for RIC was 18 minutes (range, 7-34 minutes). No severe adverse events, such as perforation, severe bleeding, high fever, or severe pain, were observed in any of the patients (Table 3).

Download English Version:

https://daneshyari.com/en/article/6097442

Download Persian Version:

https://daneshyari.com/article/6097442

Daneshyari.com