Effective hemostasis with double-balloon rectal catheter for uncontrolled bleeding during endoscopic mucosal resection of large rectal neoplasms

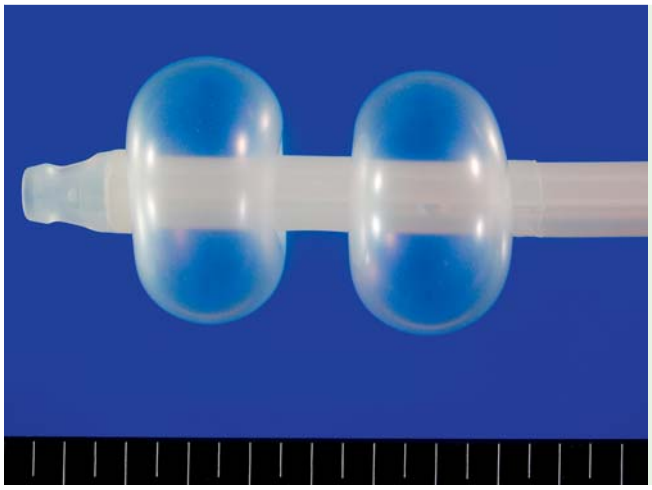

Fig. 1 The tip of the double-balloon rectal catheter showing the two inflated balloons.

Endoscopic mucosal resection (EMR) is a standard treatment for intramucosal colorectal neoplasms. Bleeding is one of the common complications of EMR [1,2]. Bleeding is often stopped using hemoclips [3], soft coagulation with hemostatic forceps [4], and hypertonic saline–epinephrine injection [5], but it may be difficult to locate the bleeding vessel if the bleeding is continuous or massive.

The Y-tube double-balloon rectal catheter (Create Medic, Yokohama, Japan; ▶ **Fig. 1**) is designed for use during barium enema examinations. The catheter is approximately 40 cm in length and has two separate balloons at the tip.

We report three cases of effective hemostasis using a barium enema balloon catheter for uncontrolled bleeding during EMR of large rectal polyps. All lesions were located in the lower part of the rectum, adjacent to the anal verge. The lesions were 20 mm, 30 mm, and 50 mm in diameter. One of the three lesions was endoscopically removed en bloc (▶ **Fig. 2a**) and two were removed by piecemeal EMR. Bleeding occurred immediately after the removal of each lesion (▶ **Fig. 2b**). In each case, hemostatic forceps could not be used as the bleeding vessel could not be detected because of the massive bleeding.

The double-balloon catheter was therefore used to compress the vessel and control the bleeding. The catheter was inserted via the anus into the rectum, and the balloon was inflated with up to 40 mL of air. The balloon was deflated and the catheter was removed after 5–15 minutes, with the scope then being re-inserted to examine whether or not the bleeding had stopped (▶ **Fig. 2c**). If the bleeding had not stopped, a second period of balloon compression was applied.

When visibility is poor and detection of the bleeding vessel is obscured as a result of continuous or massive bleeding in the rectal region, hemostasis with a balloon catheter is an effective and expedient treatment method.

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Competing interests: None

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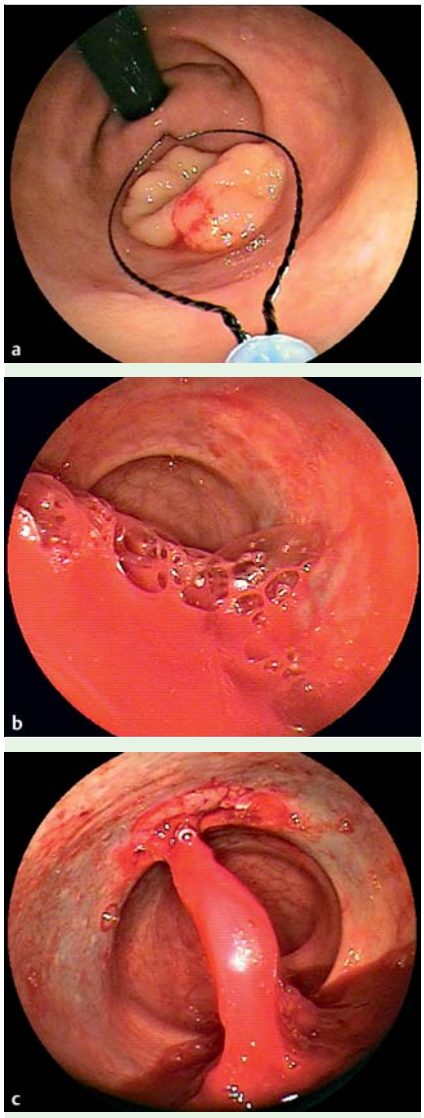

Fig. 2 Endoscopic appearances in a patient undergoing endoscopic mucosal resection (EMR) for a large rectal polyp showing: **a** the 3-cm diameter, flat rectal lesion; **b** massive and continuous bleeding after EMR, which made location of the bleeding vessel difficult; **c** markedly reduced bleeding after 5 minutes of compression, which allowed the bleeding vessel to be identified so that a hemostatic clip could be deployed to eliminate the bleeding completely.

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