Transanal minimally invasive surgery after incomplete resection of a rectal polyp using a full-thickness resection device

There are many alternatives for minimally invasive treatment of early colorectal lesions in the rectum. Endoscopic approaches include endoscopic mucosal resection (EMR), endoscopic submucosal resection (ESR), or endoscopic full-thickness resection (eFTR) using the full-thickness resection device (FTRD; Ovesco), which is an alternative after incomplete endoscopic resection, in high risk patients, and for lesions with difficult endoscopic access [1]. Minimally invasive surgical alternatives, such as transanal endoscopic microsurgery (TEM) and transanal minimally invasive surgery (TAMIS), are also available [2, 3].

We present the case of a 72-year-old woman under investigation by the gastroenterologist for gastrointestinal disorders. A colonoscopy was performed, which revealed a non-invasive adenomatous lesion, in the form of a laterally spreading tumor (LST) type IIa + Is, arising from the anterior rectal wall, 8 cm from the anal verge, and occupying 60% of the lumen. Mucosectomy with piecemeal resection was carried out, with pathological examination of the specimen reporting high grade dysplasia.

A new colonoscopy was performed and a fibrotic lesion was resected using the FTRD (►Fig. 1a), revealing a tubulovillous adenoma with low grade dysplasia. Further endoscopic follow-up showed the metal device (FTRD clip) located on the anterior middle rectal wall and covered with adenomatous tissue (►Fig. 1b). A biopsy was taken and the report showed a tubulovillous adenoma with high grade dysplasia.

The patient was discussed with the surgical team, and TAMIS was performed (►Video 1), with the free margins being marked (►Fig. 2a), before full-thickness rectal wall resection (►Fig. 2b), followed by closure of the defect.

Pathological analysis showed a 3.5 × 2.3 × 1.1-cm specimen, containing a 1.5 × 1.5-cm lesion with a metal device

► **Fig. 1** Colonoscopic views showing: **a** a rectal polyp; **b** the previously applied full-thickness resection device covered with adenomatous tissue.

► **Video 1** Transanal minimally invasive surgery after incomplete resection of a rectal polyp using a full-thickness resection device.

► **Fig. 2** Views during transanal minimally invasive surgery (TAMIS) showing: **a** the free margins being marked; **b** full-thickness resection.

within it. A tubular adenoma with low grade dysplasia and free margins was confirmed.

The patient's postoperative recovery was uneventful and no signs of recurrence were found on follow-up after 6 months. TAMIS is an alternative for failed or incomplete resection after eFTR using the FTRD. It is a safe and feasible technique allowing for a full-thickness rectal resection [4, 5].

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Competing interests

The authors declare that they have no conflict of interest.

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