

Endoscopic submucosal dissection with double-tunnel technique for *en bloc* resection of large rectal laterally spreading tumor

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Large (>2.5 cm) rectal laterally spreading tumors (LSTs) are often managed endoscopically with piecemeal endoscopic mucosal resection technique (pEMR). However, the mean recurrence rate after pEMR is 20% [1]. Furthermore, rectal LST-mixed granular type lesions (0-Is+IIa) demonstrate deep submucosal cancerous infiltration in 10.1% of cases [2]. Endoscopic submucosal dissection (ESD) is an endoscopic technique developed in Japan for the *en bloc* excision of gastrointestinal superficial tumors with the intent to perform precise histopathological staging, offering an almost null risk of recurrence.

Here we report the case of a 74-year-old woman with a rectal LST-G mixed type tumor occupying 90% of the circumference of the dentate line and extending into the rectum. Endoscopic biopsies revealed a low-grade and focally a high-grade adenoma.

We performed *en bloc* excision of the tumor with the ESD technique, using a Dual-Jet Knife (Olympus Corporation, Japan) and an Olympus GIF-HQ190 endoscope. ESD was performed under general anesthesia and 2 submucosal tunnels were initially achieved from the anal to the oral side (Fig. 1). For very large LSTs tunneling ESD offers a precise dissection plane without loss of orientation [3]. The dissection was completed by connecting the two tunnels and further dissecting to the periphery of the lesion. The specimen size was 141 × 82 mm when fixed on the cork (Fig. 2). Hydrocortisone solution was injected into residual submucosal areas of the artificial ulcer to reduce the risk of rectal stenosis. The procedure lasted 232 min without complications and the patient was discharged from the hospital the next day. Histology revealed a predominately low-grade adenoma with 5 foci of intramucosal cancer. The procedure was deemed to be an R0/curative resection.

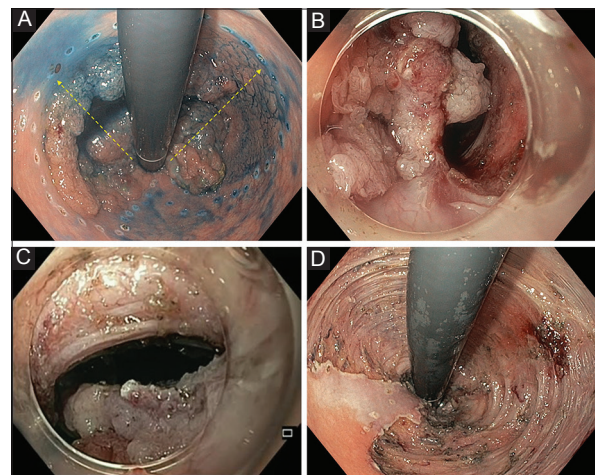


Figure 1 (A) Rectal laterally spreading tumor under retroflexed view. Arrows indicate the direction of the 2 tunnels. (B) First tunnel. (C) Second tunnel. (D) Artificial ulcer after dissection

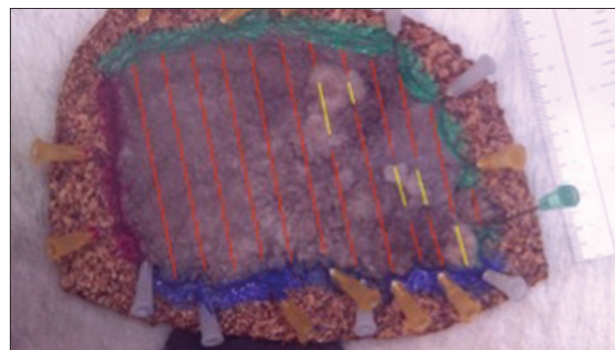


Figure 2 The specimen fixed on the cork. Red lines indicate low-grade dysplastic changes. Yellow lines indicate foci of intramucosal cancer

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