

Complete resection of a 225-mm circumferential rectosigmoid intramucosal carcinoma by endoscopic submucosal dissection

A 58-year-old man presented with a fully circumferential, granular-type, laterally spreading tumor in the rectosigmoid (● Fig. 1 a, ● Fig. 1 b), which was diagnosed as an intramucosal cancer using magnifying endoscopy. En bloc resection was accomplished by endoscopic submucosal dissection (ESD) using the pocket-creation method [1].

Three submucosal pockets were created, leaving submucosal tissue between the pockets to maintain traction until the end of the ESD procedure. Circumferential mucosal incision at the proximal border of the cylindrical tumor was performed before completion of submucosal dissection in order to avoid visual interference of a flap from the resected distal portion. The resected tumor was extracted by defecation (● Fig. 1 c, ● Fig. 1 d) [2].

Pathological examination showed an intramucosal, well-differentiated, adenocarcinoma in an adenoma, with negative resection margins and no lymphovascular invasion. The patient was discharged without complications. Betamethasone suppositories (1.0 mg/day) were given for 8 weeks to prevent stricture formation.

Although the patient remained free of obstructive symptoms, follow-up colonoscopy at 2 months revealed stenosis at the ESD site. This was dilated using endoscopic balloon dilation up to 16.5 mm in diameter in a stepwise manner over three sessions (● Fig. 1 e, ● Fig. 1 f) [3]. At the 7-month follow-up, the patient was asymptomatic.

In this patient, a 210-mm-long circumferential tumor was completely resected. To the best of our knowledge, this is the first description of curative ESD for a circumferential rectosigmoid intramucosal cancer >200 mm long. Although obstructive symptoms are almost inevitable following ESD of a long circumferential esophageal lesion, this patient experienced no obstructive symptoms. The risk of obstruction



tion after circumferential ESD may be lower in the colon and rectum [4] than in the esophagus, owing to a larger lumen and possible self-dilation by stool. Colorectal circumferential ESD is feasible and may have a low risk of post-ESD obstruction.

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Competing interests: H. Yamamoto has patents for ESD devices produced by FUJIFILM Corp., and is also a consultant for and has received honoraria, grants, and royalties from the company. Y. Hayashi and K. Sunada have received honoraria from FUJIFILM Corp.

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● Fig. 1 a–f see following page.

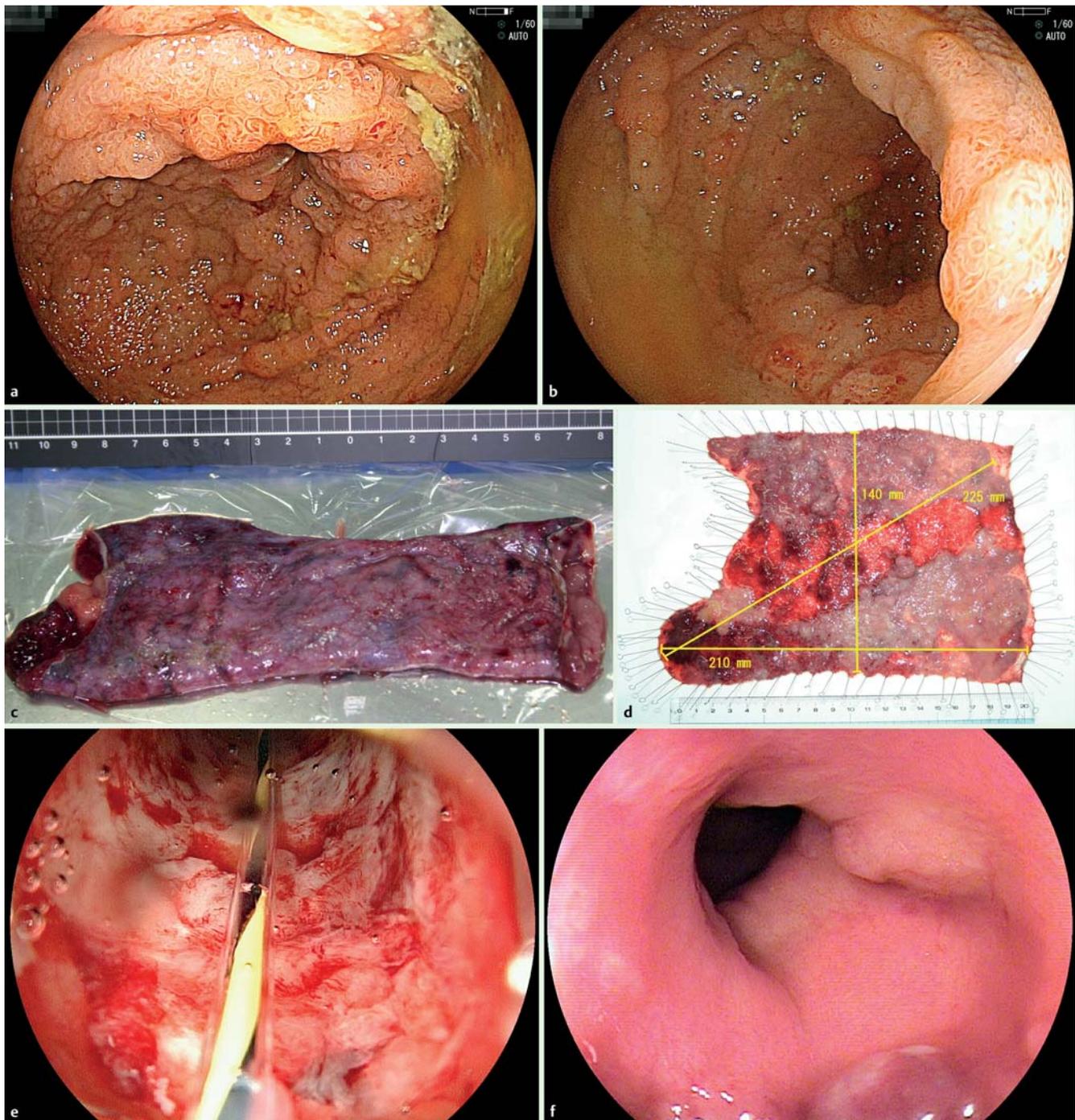


Fig. 1 Endoscopic submucosal dissection (ESD) of a circumferential rectosigmoid intramucosal carcinoma. **a, b** Endoscopic view of a large circumferential laterally spreading tumor (granular, mixed-nodular type) extending from the upper rectum to the rectosigmoid. **c** The en bloc resected cylindrical specimen. The dissection time was 662 minutes. A total of 225 mL of 0.4% sodium hyaluronate was injected during the ESD procedure. **d** The opened specimen measured 220 × 140 mm (longest specimen axis 247 mm), with the tumor occupying 210 × 140 mm (longest tumor axis 225 mm). **e** Endoscopic view during the first endoscopic balloon dilation session 2 months after ESD. **f** The ESD site 4 months after ESD and after three dilation sessions.