Endosonographic detection of dumbbell-shaped jejunal GIST using double balloon enteroscopy

Fig. 1 Submucosal lesion was noted in the proximal jejunum.

Fig. 2 Endoscopic ultrasound with a 12-MHz US catheter probe disclosed a dumbbell-shaped tumor in the jejunal wall.

Fig. 3 The submucosal tumor was contiguous with the proper muscle layer.

The introduction of double balloon enteroscopy (DBE) into clinical practice has enabled us to examine lesions, even those located in the jejunum [1]. DBE has also been reported to be useful for the treatment of bleeding jejunal lesions [2]. We report a case of gastrointestinal stromal tumor (GIST) of the jejunum, a precise preoperative diagnosis of which was made with DBE.

A 48-year-old man was referred for evaluation of repeated bloody stools. The Hb level was 5.4 mg/dL. Esophagogastroduodenoscopy, colonoscopy, and push enteroscopy (PCF P240 AI; Olympus, Tokyo, Japan) failed to reveal any obvious lesion. DBE (EN450 T5/20; Fujinon-Toshiba ES system, Tokyo, Japan) was carried out, and a submucosal lesion was noted in the jejunum, located approximately 1 m distal to the ligament of Treitz (● Fig. 1). A small ulceration with active bleeding was noted at the top of the lesion. Hypertonic saline epinephrine injection was successfully carried out to terminate the bleeding. Endoscopic ultrasound with a 12-MHz US catheter probe (SP-702; Fujinon-Toshiba) disclosed a dumbbell-shaped tumor in the jejunal wall (● Fig. 2). It measured 2 cm in diameter, with a homogeneous, hypoechoic pattern. It was contiguous with the proper

muscle layer (● Fig. 3). A preoperative diagnosis of jejunal GIST was made. The lesion was resected surgically.

The jejunal submucosal tumor was recognized from the outside of the lumen (● Fig. 4). The macroscopic view of the formalin-fixed specimen revealed clearly the dumbbell shape of the tumor (● Fig. 5); it measured 22 × 19 mm. Microscopically, the lesion was composed of interlacing bundles of spindle cells with no atypia, which derived from the proper muscle layer. No mitosis was noted (0/50 high-power field). Immunohis-

tochemical study revealed positive staining of c-kit (● Fig. 6) and CD34. MIB-1 labeling index was 2%. Postoperative histologic diagnosis was jejunal GIST, classified as low risk.

DBE is a useful modality for both diagnostic and therapeutic purposes.

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Fig. 4 Intraoperative view: the jejunal submucosal tumor was recognized from the outside of the lumen.

Fig. 6 Immunohistochemical study revealed positive staining of c-kit.

Fig. 5 Macroscopic view of the formalin-fixed specimen of the jejunal submucosal tumor.

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