Novel technique for treating intussuscepted intestinal Meckel’s diverticulum: enteroscopic intestinal diverticulum dissection (EIDD)

Meckel’s diverticulum is a well-described anomaly of the small intestine caused by the incomplete closure of the omphalomesenteric or vitelline duct. It generally does not cause any symptoms [1]. Treatment is usually performed for complications, the most serious being gastrointestinal bleeding. Traditional treatments including diverticulum exclusion, varus suture, simple resection of the diverticulum, and partial resection of the small intestine, are traumatic [2, 3]. Enteroscopic surgery is a recently developed treatment modality. Herein, we report on a novel technique, called enteroscopic intestinal diverticulum dissection (EIDD) (Fig. 1), for treatment of intussuscepted intestinal Meckel’s diverticulum.

A 30-year-old woman complained of tenderness in the lower abdomen. Contrast-enhanced computed tomography showed a long intussuscepted diverticulum. Double-balloon enteroscopy at our hospital located a 10-cm pedunculated mass protruding into the intestinal cavity, with an umbilicate depression at the center of the head of the mass. Two metallic clips were placed at the base of the diverticulum for future location. Two weeks later, symptoms remained and the pa-
The patient opted for endoscopic treatment. The EIDD technique, which is applied in large pedunculated polyps, was performed and complete resection of the diverticulum was achieved, thus avoiding surgery (▶Fig. 2, ▶Video 1). The postoperative course was uneventful. The patient was discharged 3 days after enteroscopic surgery. Her symptoms resolved completely during follow-up.

When considering EIDD, we should ensure that the diagnosis is clear preoperatively to exclude intestinal duplication, polyp, submucosal tumor, or intestinal wall varus. Standardization of the procedure should be established by constant accumulation and review of experience, including choice of instruments, method of resection, suture techniques, and so on. In this way, enteroscopic treatment can maintain intestinal integrity and lead
to rapid healing, free of postoperative adverse events, especially anastomotic complications. Further clinical studies with a larger number of patients are necessary to confirm this hypothesis.

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Competing interests

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