Endoscopic full-thickness resection of IgG4-related gastric submucosal tumor-like lesion

IgG4-related disease (IgG4-RD) is an immune-mediated disorder in which abundant IgG4-positive plasma cells infiltrate the affected organs. IgG4-RD presenting as a submucosal tumor of the stomach is rare, and preoperative diagnosis is difficult. Herein, we demonstrate endoscopic full-thickness resection (EFTR) of IgG4-RD presenting as a submucosal stomach tumor for the first time.

Our patient (a 77-year-old man) had a 20-mm submucosal tumor in the posterior wall of the stomach, which was initially identified by upper gastrointestinal endoscopy (Fig. 1). Endoscopic ultrasonography showed a low-echoic mass derived from the muscularis propria of the stomach (Fig. 2). Fine-needle aspiration biopsy could not confirm the diagnosis. Enhanced computed tomography showed neither lymph node enlargement nor metastasis. A malignant gastrointestinal stromal tumor (GIST) was suspected and EFTR was performed with the patient under general anesthesia. The mucosa was incised around the submucosal tumor using a FlushKnife BT 2.5 (Fujifilm, Tokyo, Japan). After the lesion had been pulled towards the stomach lumen using two clips and a thread, the resection was completed using an IT-Knife 2 (Olympus, Tokyo, Japan). Fibrosis made this lesion unusually difficult to resect; therefore, two clips were required for sufficient traction. The perforation site was closed using Sure-Clips (Micro-Tech, Nanjing, China) and a detachable snare (Olympus) (Fig. 3). Histopathology showed a mass with lymphoplasmacytic infiltration, fibrosis, and IgG4-positive plasma cells (Fig. 4). A postoperative elevation of serum IgG4 levels was noted. No recurrence was observed within 1 year.

This case was one of definite IgG4-RD presenting as a gastric lesion. EFTR allowed accurate diagnosis. IgG4-RD may present as a gastric lesion and often cannot be differentiated preoperatively from a GIST [1]. Patients with such lesions have undergone various types of surgery [2]; however, this is the first re-
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