Compression from a retroperitoneal schwannoma presenting as a subepithelial lesion of the gastric fundus

Gastric subepithelial lesions (SELs) are frequently incidental findings encountered during endoscopy. The lesions may originate from any layer of the gastric wall and sometimes arise from compression by extraluminal structures [1]. Schwannomas are nerve sheath tumors that seldom occur in the retroperitoneal region, comprising only 4% of all retroperitoneal tumors and 3% of all schwannomas [2]. Herein, we present a case of retroperitoneal schwannoma compressing the gastric fundus and presenting as a protruding subepithelial mass.

A 66-year-old woman underwent esophagogastroduodenoscopy (EGD) for screening purposes. EGD revealed an SEL in the gastric fundus that protruded into the stomach cavity (▶ Fig.1a). Endoscopic ultrasonography (EUS) showed that the subepithelial protrusion derived from extraluminal compression arising from a heterogeneously hypoechoic structure adjacent to the wall (arrows). CT scanning demonstrated a nodular mass of approximately 2.5 cm in diameter between the abdominal aorta and the gastric wall, which was causing gastric fundal compression (arrows). The patient refused EUS-guided fine-needle aspiration. Laparoscopic surgery revealed that the mass was located in the retroperitoneum, and it was removed. Pathological examinations subsequently revealed a schwannoma (▶ Fig.2).

Common sources of extrinsic gastric compression are normal abdominal structures, such as the spleen, splenic vessels, gallbladder, colon, and pancreas [3]. In addition, pathologic conditions such as tumors, cysts, aneurysms, ectopic pancreas, and enlarged lymph nodes may appear as gastric SELs on endoscopy [4]. Extragastric compression may be difficult to distinguish from intramural lesions using endoscopy alone. In this situation, EUS can provide reliable information for the differentiation of extraluminal compression from true subepithelial tumors [3]. Although retroperitoneal schwannoma is a rare tumor, this case illustrates that the entity should also be included in the differential diagnosis of gastric SELs.

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Conflict of Interest

The authors declare that they have no conflict of interest.

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Fig. 2 Histopathological examination. a Macroscopic appearance of the cut surface of the resected mass showed a yellow firm and encapsulated solid tumor. b Histopathologic findings revealed a dense arrangement of short spindle-shaped cells in a fasciulated and disarrayed architecture (Antoni A zone) alternating with sparsely arranged round or ovoid cells in scattered asterisms (Antoni B zone). No pathologic mitosis was observed (hematoxylin and eosin staining, ×100). c The tumor cells were diffuse positive for S-100 (immunohistochemical staining, ×100).

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