Synchronous pancreatic and gastric metastasis from an ovarian adenocarcinoma diagnosed by endoscopic ultrasound-guided fine-needle aspiration

Metastasis of ovarian carcinoma to the stomach [1–5] or pancreas [6, 7] is uncommon. Furthermore, synchronous metastasis of ovarian adenocarcinoma to the stomach and pancreas has never been reported. We report here the detection of synchronous metastasis to both the stomach and pancreas from a resected ovarian papillary serous cystadenocarcinoma.

At 25 months after gynecological surgery, a gastric submucosal mass and pancreatic masses were noted on follow-up computed tomography in an asymptomatic 51-year-old woman. Contrast-enhanced computed tomography showed a 4.6 × 4.2-cm intramural mass (yellow arrows) in the gastric antrum is suggestive of a gastric submucosal tumor. A 1.0 × 1.0-cm mass (yellow arrows) in the pancreatic body exhibits slight enhancement in the early phase.

The serum cancer antigen 125 (CA-125) level was high (89 U/mL; normal < 35 U/mL). The patient underwent esophagogastroduodenoscopy (EGD), which showed a 3.0-cm submucosal tumor covered with normal gastric mucosa at the antrum. Endoscopic ultrasound (EUS) demonstrated that the lesion was located mainly in the fourth layer. In addition, two pancreatic lesions, measuring 7 × 5 mm and 4 × 3 mm, were identified in the pancreatic body. EUS-guided fine-needle aspiration (EUS-FNA) of the gastric and pancreatic lesions was performed, and microscopic examination showed a group of cells with rounded borders and round to oval nuclei in a papillary arrangement.
Immunohistochemical study revealed positivity for cytokeratin 7 (++) , CA-125 (+) , estrogen receptor (+ +) , progesterone receptor (+) , and negativity for cytokeratin 20 (–) and CDX-2 (–) . The pathological features were similar to those of the previous ovarian lesion. The final pathological diagnosis was metastatic tumor from a primary ovarian carcinoma.

In conclusion, a possible diagnosis of gastric and pancreatic metastasis of ovarian papillary serous adenocarcinoma should be kept in mind in a patient with an unknown primary lesion, even one with a remote history of ovarian malignancy. EUS-FNA in conjunction with immunohistochemistry is a useful tool for diagnosing metastatic lesions.

References
5 Zhou JJ, Miao XY. Gastric metastasis from ovarian carcinoma: a case report and literature review. World J Gastroenterol 2012; 18: 6341 – 6344
6 Silva KG, Dahmoush L, Gerke H. Pancreatic metastasis of an ovarian malignant mixed Mullerian tumor identified by EUS-guided fine needle aspiration and Trucut needle biopsy. JOP 2006; 7: 66 – 69

Competing interests: None

Kentaro Yamao1, Masayuki Kitano1, Masatoshi Kudo1, Osamu Maenishi2
1 Department of Gastroenterology and Hepatology, Kinki University School of Medicine, Osaka-sayama, Japan
2 Department of Pathology, Kinki University Faculty of Medicine, Osaka-sayama, Japan