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

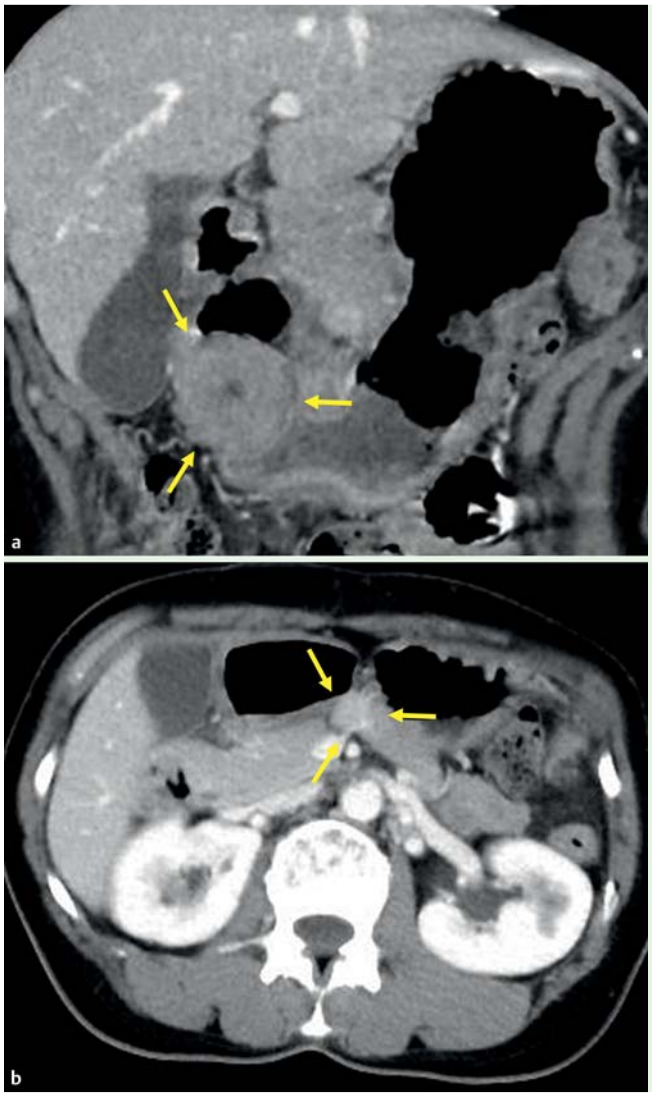

Fig. 1 Follow-up abdominal contrast-enhanced computed tomography in an asymptomatic 51-year-old woman at 25 months after gynecological surgery. **a** A 4.6 × 4.2-cm intramural mass (yellow arrows) in the gastric antrum is suggestive of a gastric submucosal tumor. **b** A 1.0 × 1.0-cm mass (yellow arrows) in the pancreatic body exhibits slight enhancement in the early phase.

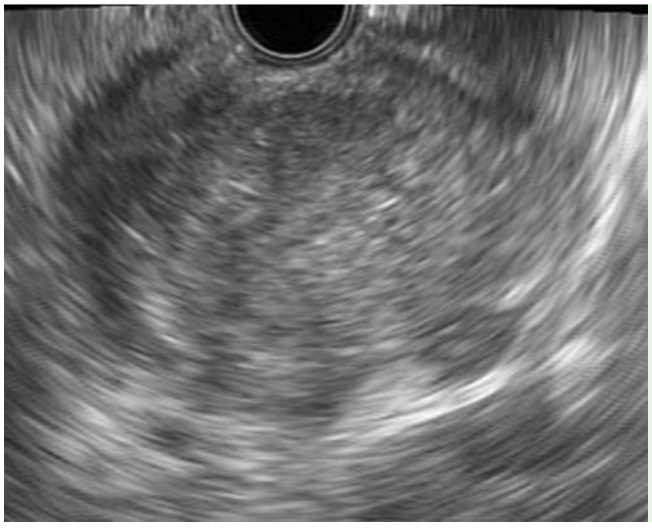

Fig. 3 Endoscopic ultrasound image of a heterogeneous antral mass of low echo genicity measuring 4.5 × 2.9 cm. The mass is surrounded by a demarcated hypoechoic rim emanating from the muscularis propria.

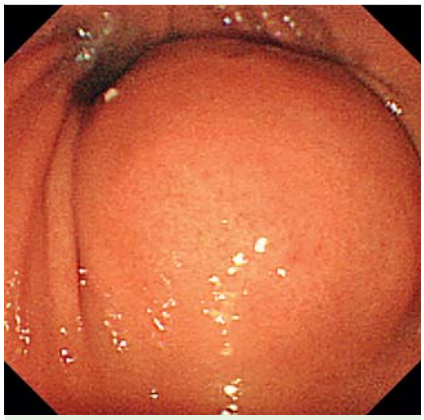

Fig. 2 Gastroscopy shows a 3.0-cm submucosal tumor covered with normal gastric mucosa at the antrum.

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 submucosal mass in the gastric antrum (**Fig. 1 a**) and a 1.0 × 1.0-cm mass in the pancreatic body (**Fig. 1 b**). 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-cm subepithelial mass at the antrum (**Fig. 2**). Endoscopic ultrasound (EUS) demonstrated that the lesion was located mainly in the fourth layer (**Fig. 3**). In addition, two pancreatic lesions, measuring 7 × 5 mm and 4 × 3 mm, were identified in the pancreatic body (**Fig. 4**). 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 (**Fig. 5**).

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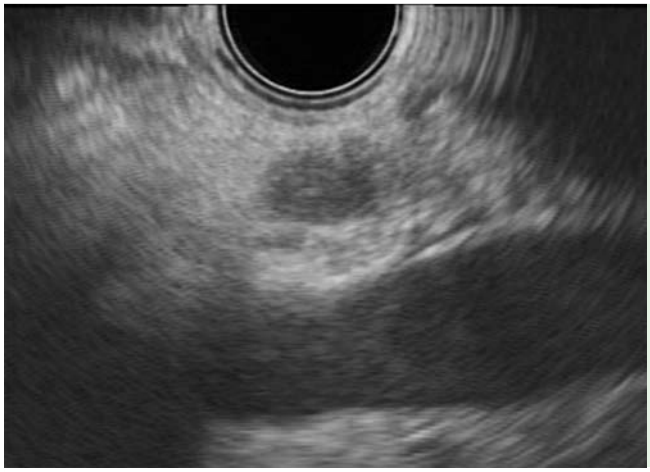

Fig. 4 Linear array endosonography shows multiple hypoechoic masses in the pancreatic body.

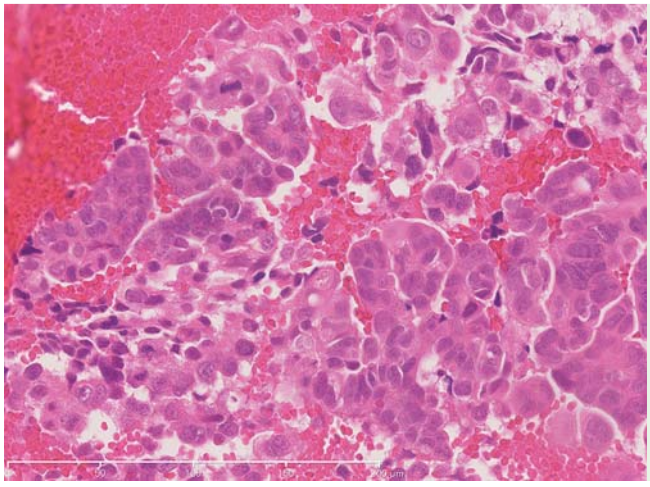

Fig. 5 Microscopic examination shows a group of cells with rounded borders and round to oval nuclei in a papillary arrangement (hematoxylin and eosin stain, ×400).

Immunohistochemical study revealed positivity for cytokeratin 7 (++), CA-125 (+), estrogen receptor (++), progesterone receptor (+), and CD56 (++), 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.

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Competing interests: None

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Bibliography

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