

# Pancreatic Metastasis from Primary Leiomyosarcoma of the Breast

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## Keywords

Pancreatic metastasis · Gallbladder metastasis · Breast leiomyosarcoma

## Metástases pancreáticas de leiomiossarcoma primário da mama

## Palavras Chave

Metástases pancreáticas · Metástases da vesícula biliar · Leiomiossarcoma da mama

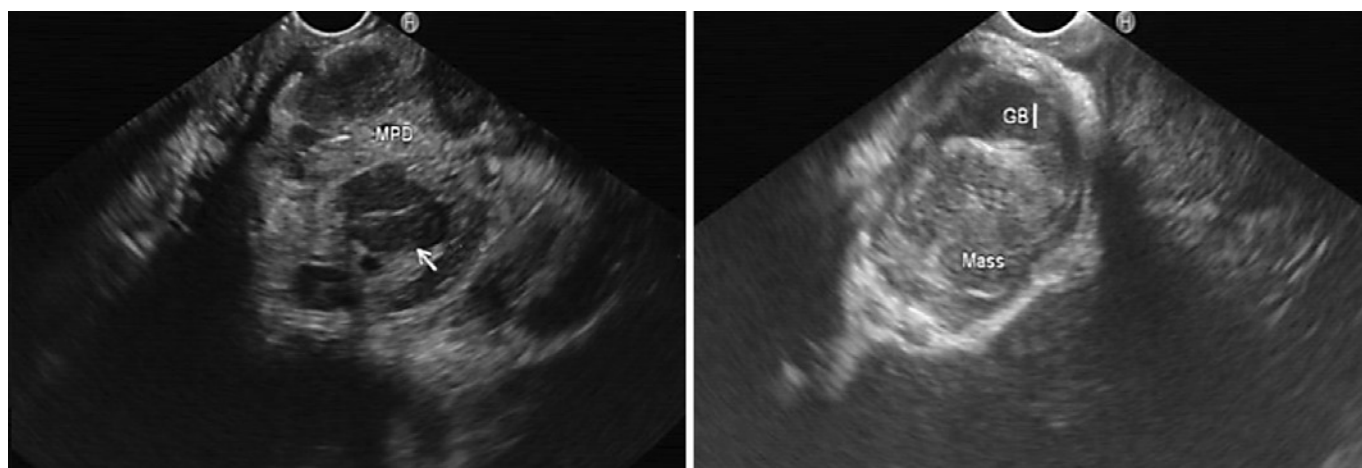
An 84-year-old female presented with a 3-month history of asthenia, weight loss, and diffuse abdominal pain. Her medical history was remarkable for high-grade breast leiomyosarcoma (Ki67 25%,  $5.5 \times 4 \times 3.5$  cm) excised 6 years before (R1), with no recurrence during follow-up. Physical examination was significant for pallor and abdominal tenderness, and laboratory workup demonstrated anemia (Hb 5.4 g/dL) and elevated lipase (267 U/L) with normal liver function tests. Ultrasound and a CT scan revealed multiple solid hepatic lesions, the largest measuring  $7 \times 5$  cm, a 3-cm pancreatic cephalic mass lesion, and a  $3.1 \times 2.5$  cm endoluminal mass in the gallbladder (Fig. 1). Differential diagnosis included gallbladder

and pancreatic cancer (eventually synchronous, with liver metastases) and late recurrence of the primary leiomyosarcoma of the breast with liver, gallbladder, and pancreatic metastases.

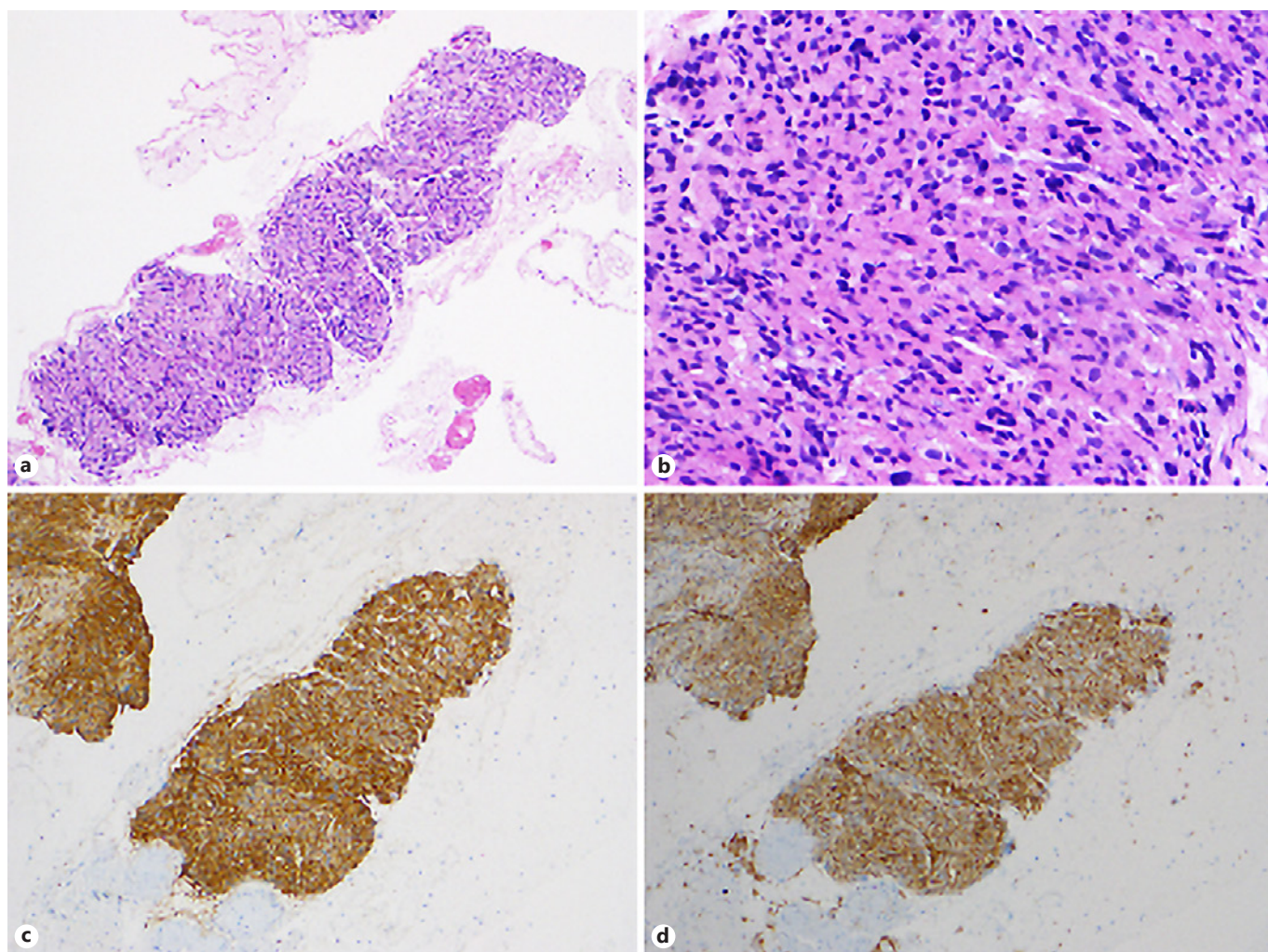
Endoscopic ultrasound identified solid liver nodules and multiple pancreatic hypoechogenic, well-defined



**Fig. 1.** Abdominal tomography showing a solid pancreatic mass (white arrow) and an endoluminal mass in the gallbladder (black arrow).



**Fig. 2.** Endoscopic ultrasound identifying multiple pancreatic hypoechoic, well-defined nodules (arrow), consistent with pancreatic metastasis, and a heterogeneous hypoechoic gallbladder mass (GB).



**Fig. 3.** **a, b** Fusiform neoplastic cells (HE.  $\times 100$  and HE.  $\times 400$ , respectively). **c, d** Immunohistochemical staining is positive for actin and caldesmon, respectively.

nodules, the largest measuring 35 mm in the cephalic region, consistent with multifocal pancreatic metastization, and a heterogeneous hypoechoic gallbladder mass (Fig. 2). Endoscopic ultrasound-guided fine-needle biopsy of the largest pancreatic lesion using a 22-G needle (Acquire™; Boston Scientific) was performed. Pathology documented fusiform neoplastic cells with numerous mitosis, and immunohistochemical staining was positive for actine, desmine, vimentin, and caldesmon and negative for CK AE1/AE3, Cam 5.2, S-100, and CD99, consistent with pancreatic metastasis from leiomyosarcoma (Fig. 3). The patient was referred to a palliative care unit.

Metastatic gallbladder and pancreatic disease are extremely uncommon in clinical practice [1, 2]. Melanoma, renal, and cervix cancer are the most common primary cancers associated with gallbladder metastases [1]. Metastatic lesions of the gallbladder from primary breast tumors are rarely described, and most of those have been associated with a lobular histology [1]. Only 2% of all pancreatic malignancies are metastases, and the most common primary cancer site responsible for pancreatic me-

tastasis is the kidney, followed by colorectal cancer, melanoma, breast cancer, lung carcinoma, and sarcoma [2]. Leiomyosarcoma represents an exceedingly rare cause of pancreatic metastasis [3–5], with the primary organs being the uterus, ovary, veins, spermatic cord, intestine, retroperitoneum, and soft tissue [4]. Primary leiomyosarcoma of the breast is an extremely rare form of breast cancer (<0.01% of all cases) with an unpredictable biological behavior [5]. To the best of our knowledge, synchronous pancreatic and gallbladder metastasis from breast leiomyosarcoma has never been reported.

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#### Statement of Ethics

This study did not require informed consent nor review/approval by the appropriate ethics committee.

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#### Disclosure Statement

The authors have no conflicts of interest to declare.

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