Clinical Images

Scalloping of the Liver

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A 75-year-old woman who had breast cancer 7 years prior was admitted with abdominal pain and distention. Abdominal computed tomography (CT) showed marked ascites, omental caking, peritoneal thickening and implants, scalloping of the liver (Figs. 1 and 2), as well as an ovarian mass. Abdominal paracentesis yielded protein-rich fluid (total protein 6.9 g/dL, SAAG 0.1 g/dL), a lactate dehydrogenase (LDH) level of 1597 U/L and 3100 mononuclear cells/mm³ with abundant adenocarcinoma cells (CK7+/CA125+, estrogen and progesterone receptors negative). Serum CA-125 was elevated at 823 U/ml and a BRCA1 gene mutation was discovered. Neoadjuvant chemotherapy was started.

BRCA1 carriage, prevalent among Ashkenazi Jews, is associated with an increased risk of breast cancer and ovarian cancer. Imaging of our patient demonstrated intraperitoneal spread of a mucous-producing ovarian adenocarcinoma. Similar tumors can originate from the gastrointestinal tract, lung, or breast.¹ CT findings resemble those of pseudomyxoma peritonei (PMP), which originates from a benign cystadenoma of the appendix, a mucous-producing tumor that outgrows the appendix, ruptures, and seeds the peritoneum secreting mucinous fluid, which progressively accumulates, causing “jelly belly.”² In both entities, the scalloping of the visceral surface of the liver is caused by masses of mucinous tumor and gelatinous fluid adjacent to the organ.³

Figures 1 and 2 Axial (1) and coronal (2) views of contrast-enhanced abdominal CT, showing ascites (*curved black arrow*) with scalloping of the liver (*dotted black arrow*), omental cake (*straight black arrow*) and peritoneal thickening (*straight white arrow*). The scalloping is caused by mass effect from loculated collections of gelatinous fluid and tumor.

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REFERENCES

1. **Moran BJ, Cecil TD.** The etiology, clinical presentation, and management of pseudomyxoma peritonei. *Surg Oncol Clin N Am.* 2003;12:585-603.
2. **Bevan KE, Mohamed F, Moran BJ.** Pseudomyxoma peritonei. *World J Gastrointest Oncol.* 2010;2:44-50.
3. **Seshul MB, Coulam CM.** Pseudomyxoma peritonei: computed tomography and sonography. *AJR.* 1981;136:803-6.