Severely calcified peritoneal metastases masquerading as retained barium on CT scan

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DESCRIPTION

A 50-year-old woman presented with non-specific abdominal pain. On examination, there was a firm palpable abdominal lump. A CT of the abdomen demonstrated a large nodular high attenuation poorly margined intraperitoneal mass. The initial impression was that the patient might have had a recent barium examination. As there was no such history, closer inspection of the CT scan with multi-format reconstruction (figures 1–4) confirmed that the high-attenuation mass was, in fact, extensive calcification. In addition, there was evidence of a

Figure 1 Calcified peritoneal metastases: CT of the abdomen in axial plane demonstrating nodular dense calcification of the peritoneum.

Figure 2 Calcified peritoneal metastases: CT of the abdomen in coronal plane demonstrating nodular dense calcification of the peritoneum.

Figure 3 Calcified peritoneal metastases: CT of the abdomen in sagittal plane demonstrating nodular dense calcification of the peritoneum.

Figure 4 Calcified peritoneal metastases: volume rendered image of the CT of the abdomen demonstrating nodular dense calcification of the peritoneum.

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partially calcified soft tissue mass in the left adnexa. The condition was provisionally diagnosed as metastatic ovarian cancer. The laparotomy was challenging as the bowel was adhered to the peritoneal deposits. The calcified mass, the adnexal structures, 90 cm of small bowel and a small segment of distal colon were removed en masse with difficulty. The specimen weighed approximately 2 kg. Histopathological analyses of the specimen confirmed high-grade papillary serous carcinoma with psammomatous calcifications replacing the left ovary and bulky calcified metastatic deposits involving peritoneum, small bowel and recto-sigmoid colon.

Peritoneal metastases are common in ovarian cystadenocarcinoma.¹ However, such extensive nodular calcification of the peritoneum as demonstrated in the index case is rare at presentation. Peritoneal and other metastatic deposits frequently undergo progressive dystrophic calcification of the necrotic tissue, once treatment has started. Other main differential diagnosis for peritoneal calcification includes peritoneal dialysis, previous peritonitis, hyperparathyroidism and atypical infection such as tuberculosis.² Sheet-like linear calcification is more likely to be benign whereas nodular calcification is typically malignant.²

Learning points

- ▶ Extensive nodular peritoneal calcification can be malignant.
- ▶ The surgery can be challenging, therefore multidisciplinary management is advised.

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