Case	(073) A rare cause of peritonitis: barium peritonitis
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CASE PRESENTATION

We present a 77 years old male who went to the emergency department due to intense right hipocondrium pain and fever, with personal history of right hemicolectomy due to colon adenocarcinoma.

Ultrasound study showed a bilobed subphrenic right collection of fusiform morphology with some septa inside. Abdominal contrast enhanced CT using venous phase was performed in order to make an accurate diagnosis.

CT images showed a subphrenic collection as high-density material that extends from the hepatic surface to right paracolic droplet, anterior pararrenal fascia and right posterior parietal leaf of peritoneum (Figures 1,2, 3) In view of these findings, the radiological history was reviewed, finding personal history of barium enema performed 6 months earlier during the diagnosis of his primary tumor, showing barium extravasation near to cecum, due to neoplasm perforation (Figure 4)

DISCUSSION

Chemical barium peritonitis is a rare entity with high morbidity and mortality because of its complications. It is important to early diagnose this entity because in contact with peritoneal cavity, barium can agglutinate in a few hours, conditioning fibrinous adhesions in a few days (1).

Barium peritonitis can be divided into two phases(2):

- Acute phase: exudative ascites develops

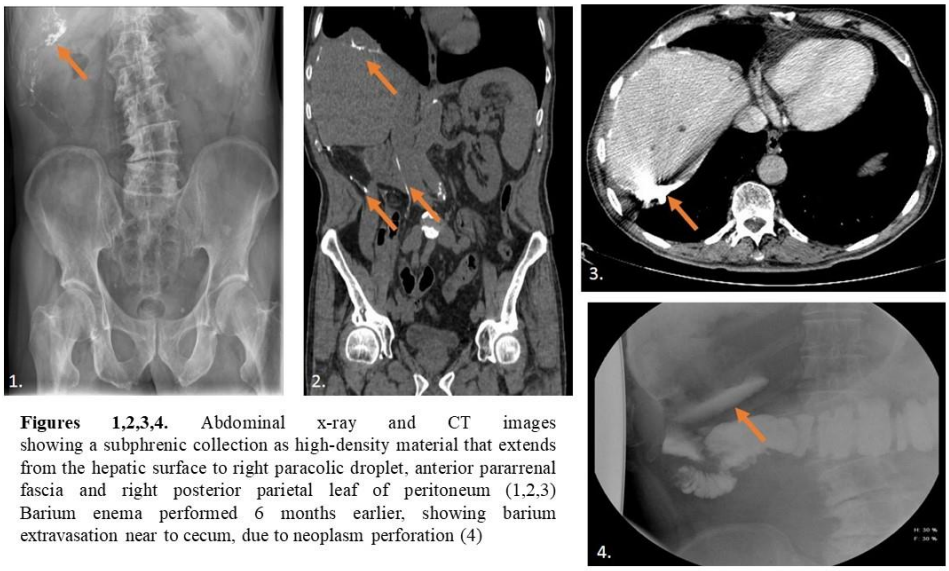
- Chronic phase: extensive fibrosis with formation of granulomas and secondary adhesions. It may complicate with bowel obstruction.

Differential diagnosis includes chronic granulomatosis processes like tuberculosis peritonitis, peritoneal calcification secondary to dialysis, calcified metastasis of some neoplasms, highlighting serous papillary ovarian adenocarcinoma and malignant mesothelioma, among others.

The treatment of this entity should be surgical in cases of extravasation of large amounts of barium, intramural abscesses or patients who do not respond to conservative treatment.

CONCLUSION

Although barium peritonitis is an infrequent entity, we must suspect it in patients with personal history of barium intestinal studies who present post-surgical collections with torpid evolution or signs of peritonitis.



Figures 1,2,3,4. Abdominal x-ray and CT images showing a subphrenic collection as high-density material that extends from the hepatic surface to right paracolic droplet, anterior pararrenal fascia and right posterior parietal leaf of peritoneum (1,2,3) Barium enema performed 6 months earlier, showing barium extravasation near to cecum, due to neoplasm perforation (4)

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