

Title:

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Retroperitoneal enterogenous cyst combined with teratoma

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Conflicts of Interest:

The authors declare that they have no conflict of interest in this study.

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Dear editor:

A 63-year-old man presented with left abdominal pain, abdominal distention, and black stool following emotional stress and strenuous exercise. CT examination revealed a large cystic mass in the left abdominal cavity, as well as the presence of a teratoma in the hepatogastric space and a descending duodenal diverticulum (Fig. 1A–1E). Subsequently, he underwent surgical resection, and the pathological findings indicated that the cyst wall consisted of mucinous glandular epithelium and smooth muscle, displaying a structure similar to normal intestinal wall tissue (Fig. 1F). Furthermore, the cyst was lined with ciliated columnar epithelium, confirming the diagnosis of an isolated enterogenous cyst (EC). Due to the potential trauma associated with excising the EC, the patient did not undergo resection of the

teratoma, especially given its proximity to a branch of the trunk abdominal artery.

EC is a rare congenital lesion that typically develops during the third week of intrauterine life. It originates from the residual or ectopic tissue of the neural tube and gastrulation^[1] and is commonly found in the central nervous system, including the cerebral hemispheres, posterior fossa, or spinal canal^[2]. The etiology and pathogenesis of EC remain unclear.

The clinical manifestations of EC are dependent on the site of occurrence. In our case, the EC was located in the retroperitoneum, and no previous clinical symptoms, likely due to the ample space available in the retroperitoneal area. The EC gradually grew as a result of the continued secretion of endothelial gland cells in the cyst wall, surpassing the re-absorptive function of the wall^[3]. Combined with emotional excitement and strenuous exercise that led to pulling irritation, resulted in symptoms such as abdominal pain and distension in patient. The presence of black stools may be associated with stress ulcers in the intestinal canal adjacent to the EC. As with mesenteric cysts, surgical resection is the preferred treatment for EC to prevent complications such as intestinal obstruction and perforation^[4]. In our case, the CT scan revealed a well-defined and intact cystic lesion with a watery density within the capsule, along with a few calcification. CT scans are valuable tools for surgical preparation, providing precise information on the EC's exact location and its relationship with the surrounding structures.

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Figure Legends

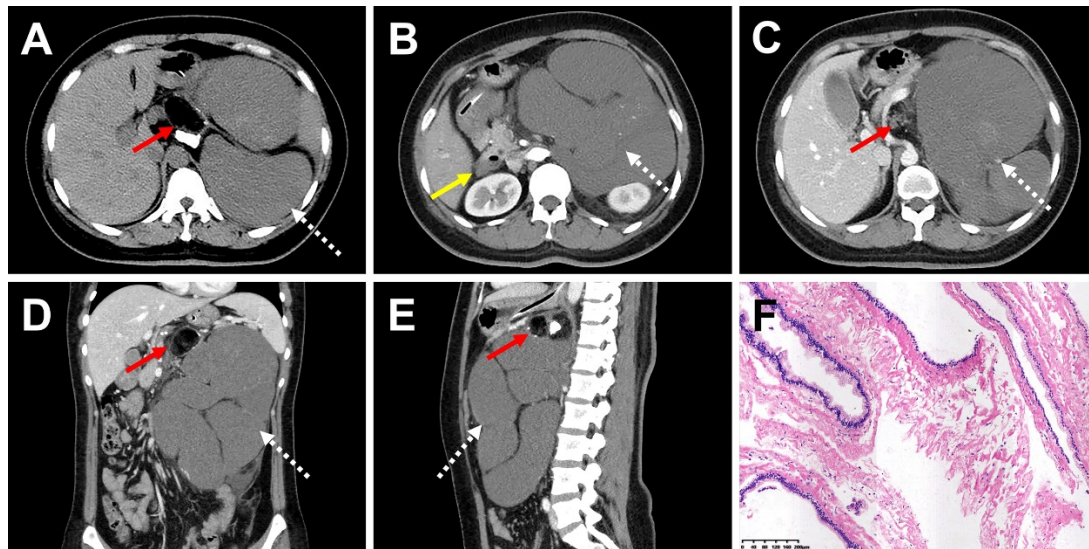


Fig. 1. Enhanced CT images and pathological image of EC. (A) The axial scan image reveals CT attenuation value of 37 HU for the EC located in the left abdomen (dashed arrows), accompanied by a hepatogastric interstitial teratoma containing fat and calcification (red arrows). (B) The arterial phase axial image shows a CT attenuation value of 40 HU for EC, with no enhancement observed and a few calcified components inside. Additionally, a diverticulum is observed in the descending duodenum (yellow arrows). (C-E) The axial, coronal and sagittal images in the venous phase shows clear borders of EC, measuring approximately 12.6 cm × 18.2 cm × 27.6 cm. (F) Hematoxylin-eosin (HE) staining (magnification ×40) shows the cyst wall was consisted of mucinous glandular epithelium and smooth muscle, displaying a structure similar to normal intestinal wall tissue. The cyst was lined with ciliated pseudostratified ciliated columnar epithelium.