

Pancreatic lymphoepithelial cyst

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A 67-year-old man presented with left upper-quadrant abdominal pain of 1 month's duration. A CT scan showed a 3-cm cystic lesion arising from the tail of the pancreas (Fig. 1). The patient was referred to our institution for EUS (Video 1, available online at www.VideoGIE.org).

On EUS, the head and body of the pancreas appeared normal. The main pancreatic duct was of normal caliber and measured 2 mm in the body of the pancreas. In the pancreatic tail, there was a 37-mm × 19-mm round heterogeneous mass with internal round and hyperechoic globules (Fig. 2). EUS-guided transgastric FNA of the pancreatic tail mass was performed with a 19G needle. On gross appearance, the aspirated cyst fluid was dark brown, viscous, and opaque. The cyst fluid levels of amylase and carcinoembryonic antigen (CEA) were within normal reference range. Cytologic examination of the cyst fluid did not show malignant cells. There was acellular proteinaceous debris surrounded by a lymphocytic rim and epithelium. Fat droplets were seen within the lymphocytic rim (Fig. 3). The cyst contents under Diff-Quik and Papanicolaou staining showed anucleated cells in a concentric arrangement (Fig. 4).

Because of the patient's ongoing abdominal pain, we elected for laparoscopic removal of the pancreatic cyst. After careful dissection into the lesser sac, the cyst was visualized near the posterior wall of the stomach originating from the pancreatic tail. With a hand-assisted laparoscopic technique, the cyst was carefully dissected from the surrounding fatty tissue and pancreas and was removed en bloc. There were no postoperative adverse events, and the patient made a complete recovery.

On gross description, the resected material was a brown-tan cystic structure with multiple yellow firm nodules arising from the inner part of the cyst wall (Fig. 5). Microscopic pathologic examination of the surgical specimen showed the cyst wall lined with squamous epithelium with foci of sebaceous differentiation. Abundant lymphocytes were also noted in the wall (Fig. 6). These findings were consistent with the diagnosis of lymphoepithelial cyst of the pancreas.

Pancreatic lymphoepithelial cyst is a rare benign cyst seen mostly in middle-aged men (male:female ratio = 4:1). They are mostly asymptomatic or cause nonspecific symptoms. Forty percent to 50% of these cysts are found

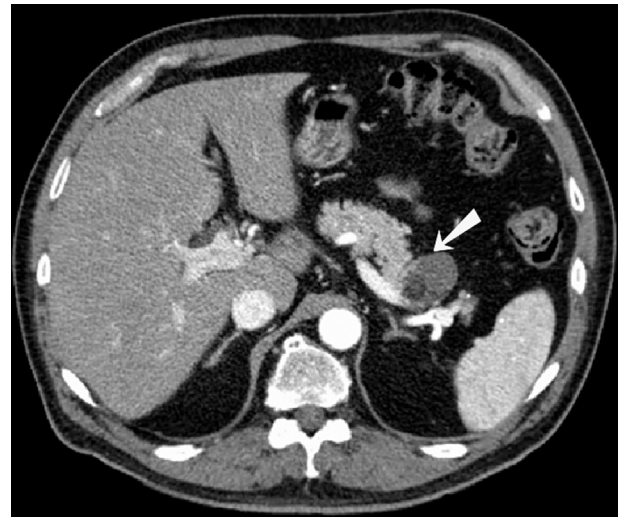


Figure 1. CT image of pancreatic cyst in tail of pancreas.



Figure 2. EUS image of pancreatic cyst.

incidentally at autopsy or imaging. Pancreatic lymphoepithelial cysts can arise with equal distribution throughout the pancreas, although a recent case study showed a predominance in the pancreatic tail.

EUS with FNA is typically the first diagnostic modality that can confirm the benign nature of the lesion. The EUS features of pancreatic lymphoepithelial cysts show considerable

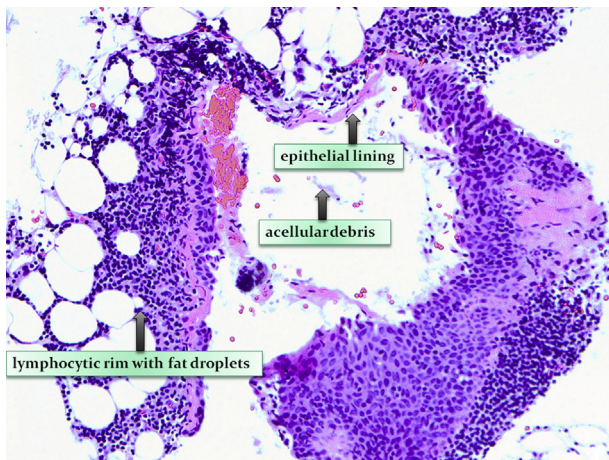


Figure 3. Cyst fluid cytologic appearance showing acellular proteinaceous debris, epithelium, and lymphocytic rim containing fat droplets (H&E, orig. mag. $\times 60$).

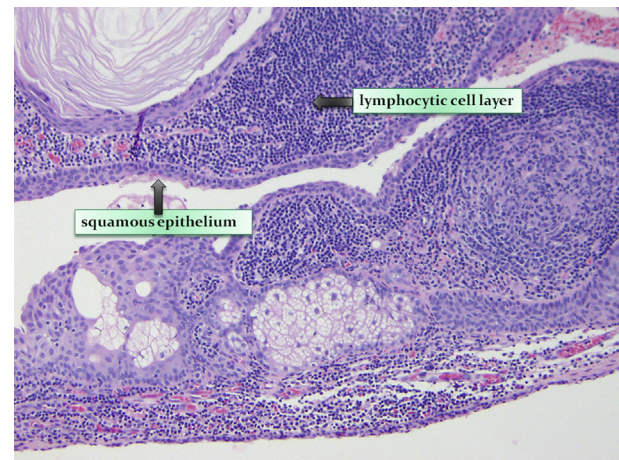


Figure 6. Microscopic pathologic appearance of resected pancreatic cyst wall with squamous epithelial lining and abundant lymphocytes (H&E, orig. mag. $\times 10$).

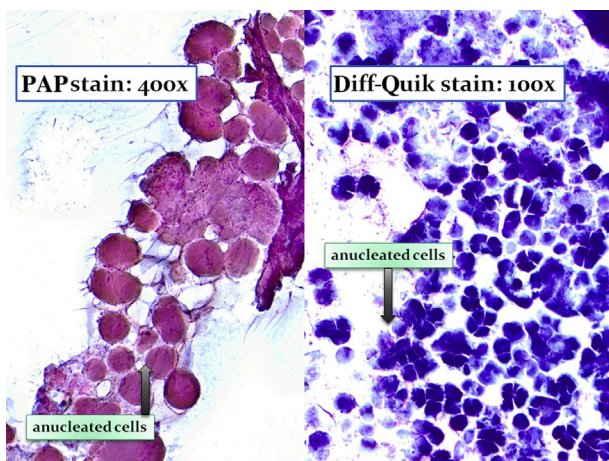


Figure 4. Cyst fluid under Diff-Quik and Papanicolaou (PAP) stain showing acellular cells in concentric arrangement.



Figure 5. Gross pathologic appearance of resected pancreatic cyst.

variability from solid to purely cystic or a mixed solid and cystic appearance. The cyst cavity can be uniloculated or multiloculated with hyperechoic or hypoechoic cyst contents. The pancreatic lymphoepithelial cyst fluid CEA and amylase levels can vary widely and are not markers for diagnosis. On cytologic analysis, the cyst wall is made of squamous epithelium, mature lymphocytes, and multinucleated giant cells. The cyst contents have abundant anucleated squamous epithelium, keratinous debris, and cholesterol crystals. The presence of acellular squamous epithelium in the cyst contents is the characteristic feature of a lymphoepithelial cyst. As with FNA of any cystic lesions in the pancreas, antibiotics should be given to prevent infection.

Even though lymphoepithelial cysts are benign with no malignant transformation potential, there could be diagnostic difficulty differentiating this cyst from cystic neoplasm of the pancreas. In these difficult and symptomatic cases, surgery is the definitive treatment.

DISCLOSURE

All authors disclosed no financial relationships relevant to this publication.

Abbreviation: CEA, carcinoembryonic antigen.

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