Pathologic Quiz Case

A Cystic Pancreatic Mass Discovered in a Patient With Ileocecal Carcinoid

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A 66-year-old white man with a prior history of coronary artery disease underwent a screening colonoscopy and was found to have an ileocecal carcinoid tumor that was proven by biopsy. A staging computed tomographic scan demonstrated the mass to be near the terminal ileum. In addition, another cystic mass located in the tail of the pancreas was seen (Figure 1, arrow). The patient’s preoperative laboratory values, including serum amylase and lipase, were within normal limits. There was no significant history of alcohol abuse, previous abdominal trauma, or chronic pancreatic disease.

The patient underwent right hemicolecction and distal pancreatectomy. Gross examination of the hemicolecction specimen revealed a tumor in the terminal ileum. The distal pancreas contained a cystic lesion that measured 2 cm in diameter (Figure 2). The cyst was unilocular and contained serous fluid. The inner surface of the cyst wall was grayish and smooth with papillations. Histologic examination of the cyst showed ciliated columnar epithelium surrounded by fibrous tissue and an outer layer of smooth muscle (Figures 3 and 4).

What is your diagnosis?
Pathologic Diagnosis: Pancreatic Ciliated Foregut Cyst

We describe a pancreatic ciliated foregut cyst that was clinically considered malignant because of its location in the pancreatic tail and because of somewhat suspicious radiologic findings. Histologically, the wall of the cyst consisted of ciliated simple columnar epithelium with interspersed goblet cells and underlying smooth muscle. Cystic lesions of the pancreas are not uncommon. Of the cystic pancreatic lesions, pseudocyst is the most common, representing about 70%, followed by neoplastic and retention cysts, among others. The distinction between neoplastic and nonneoplastic cystic lesions is of considerable clinical importance.1 A nonneoplastic cyst usually does not require surgical resection unless it is causing symptoms, whereas a neoplastic cystic neoplasm usually requires surgical treatment. Nonneoplastic cysts may be lined by acinar cells, columnar mucin-producing cells, or ciliated epithelium. The latter are exceedingly rare and are designated ciliated foregut cysts. They are thought to arise from a detached remnant of the pancreatic outpouching of the embryonic foregut. This case represents the sixth in English literature of a ciliated foregut cyst arising in the pancreas, mimicking a cystic neoplasm on preoperative evaluation.2-7

Ciliated foregut-derived cysts can occur at multiple sites, such as the mediastinum and abdomen.8 Those involving the esophagus, tracheobronchial tree, and liver are designated esophageal cysts, bronchial cysts, and ciliated hepatic foregut cysts, respectively.9-11 Ciliated epithelium is commonly seen in the respiratory tract, and it is found in the fetal esophagus from the 10th to the 20th week of gestation.12 Either developmental rests or differentiation of multipotent endodermal cells can lead to the development of ciliated cysts. A ciliated foregut cyst in the tail of the pancreas has previously been described.7

In summary, we presented an exceedingly rare case of ciliated foregut cyst of the pancreas incidentally found on computed tomographic scan in a patient being evaluated for metastatic workup of ileal carcinoid. The widespread use of ultrasound and computed tomography as diagnostic tools is resulting in the identification of different types of pancreatic lesions. Knowledge of different types of cystic lesions of the pancreas is useful and necessary to help advise the surgeon of the need for resection.

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References