Pancreatic Lipomatous Pseudohypertrophy

A 35-year-old woman presented to the emergency department complaining of vague flank pain for which an unenhanced computed tomography (CT) of the abdomen and pelvis was ordered to rule out nephrolithiasis. No additional history was provided at the time of the imaging. The CT examination, although negative for acute findings, demonstrated fatty replacement and hypertrophy of the pancreas, consistent with pancreatic lipomatous pseudohypertrophy (Figure A). The differential diagnosis included cystic fibrosis, Shwachman-Diamond syndrome, chronic pancreatitis, and a variation of normal fatty pancreatic atrophy. An unenhanced CT of the chest was available for comparison, which demonstrated upper lobe predominant cystic bronchiectasis, clinching the diagnosis of cystic fibrosis (Figures B and C).

The intrathoracic findings associated with cystic fibrosis are well-known; however, the abdominal findings are less known to most radiologists. Pancreatic manifestations of cystic fibrosis include lipomatous pseudohypertrophy, acute pancreatitis, cysts, calcifications, ductal abnormalities, and pancreatic carcinoma. Additional abdominal manifestations of cystic fibrosis include fatty infiltration of the liver, cholelithiasis, microgallbladder, focal biliary fibrosis, multinodular cirrhosis, distal intestinal obstruction syndrome, intussusception, gastroesophageal reflux, peptic ulcers, fibrosing colonopathy, nephrolithiasis, and rectal mucosal prolapse. Knowledge of these complications can provide a valuable “rule-out” checklist when evaluating imaging studies for a patient with cystic fibrosis.

Reference