

IMAGES OF INTEREST

Hepatobiliary and pancreatic: Simple pancreatic cysts

Figures 1 and 2 illustrate single and multiple cysts in the pancreas. In Figure 1, a single cyst is located in the head of the pancreas (arrow) and is associated with a cyst in the right kidney. The cyst was an incidental finding in an elderly man who had an enhanced computed tomography (CT) scan for lower abdominal pain. The CT scan in Figure 2 shows a pancreas largely replaced by cysts in a patient with autosomal dominant polycystic kidney disease. There was no pancreatic calcification. The diagnosis was that of multiple simple pancreatic cysts as an extrarenal manifestation of polycystic kidney disease.

Simple cysts of the pancreas are rare and are thought to be congenital in origin. The typical appearance on an ultrasound study or CT scan is a small single cyst with a thin wall surrounded by normal pancreatic tissue. The differential diagnosis needs to include a mucinous cystadenoma and an atypical serous cystadenoma. In patients with polycystic kidney disease, the liver is the most common site for extrarenal cysts (70% of patients have hepatic cysts by the age of 60 years). Pancreatic cysts can be detected in up to 10% of patients at autopsy but some of these cysts are small and may not be seen on imaging studies. These cysts do not communicate with the main pancreatic duct and have only rarely been associated with complications such as hemorrhage or infection. Furthermore, patients with polycystic pancreas are not at increased risk for the development of chronic pancreatitis. The genetic abnormality in polycystic kidney disease is a heterozygous germline mutation in either PKD1 (encoding polycystin-1) or PKD2 (encoding polycystin-2). However, susceptibility to cyst formation depends on a second somatic mutation (second hit) in the normal allele of individual cells. Hepatic and pancreatic cysts appear to be more frequent in patients with PKD2 mutations than in those with PKD1 mutations.

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Figure 1

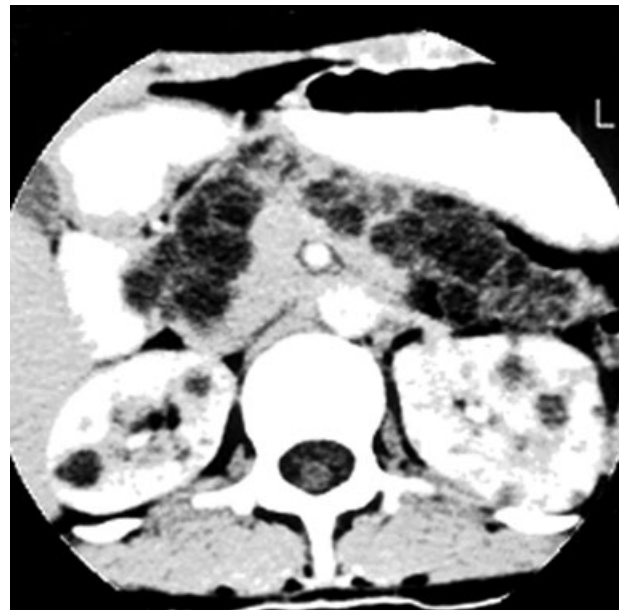


Figure 2

Contributions to the Images of Interest Section are welcomed and should be submitted to Professor IC Roberts-Thomson, Department of Gastroenterology, The Queen Elizabeth Hospital, Woodville South, South Australia 5011, Australia.

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