Hydatid disease is a serious health problem in endemic areas. Most human infections are due to *Echinococcus granulosus* transmitted between synanthropic hosts and livestock, while *Echinococcus multilocularis* infection is uncommon and appears to be endemic in specific areas such as Siberia, northern Canada and Bararia, India. The pancreas is considered a rare, atypical location for a hydatid cyst. Involvement of the pancreas in hydatid disease has an incidence ranging between 0.2% and 2.0%. Only a few cases of hydatid cyst in the head of the pancreas have been reported. The embryo of a hydatid cyst ends up in the pancreas mainly by hematogenous spread. The clinical presentation of pancreatic hydatid disease depends on the size and anatomical location of the cyst and is usually due to the pressure effect of the cyst on adjacent structures. Abdominal pain, obstructive jaundice and an abdominal mass are the most common presenting symptoms of hydatid cyst of the pancreas. Hydatid cysts of the pancreas are generally difficult to diagnose preoperatively and, because of their rarity, may be mistaken for more commonly encountered cystic lesions. Surgery remains the treatment of choice for hydatid cyst of the pancreas.

**CASE**

A 4-year-old female presented with upper abdominal pain of 4 months duration and yellowish discoloration of the eyes of 2 months duration. There was no history of fever, vomiting or weight loss. On general physical examination, a yellowish discoloration of the sclera was seen. The systemic examination was unremarkable. Abdominal examination revealed a nontender, soft cystic globular swelling filling the epigastrium and right hypochondrium. Contrast-enhanced computed tomography scan of the abdomen revealed a cystic mass at the lower end of the common bile duct, which mimicked a choledochal cyst. The diagnosis of hydatid cyst was made intraoperatively, with postoperative findings revealing a hydatid cyst at the head of the pancreas that was compressing the lower end of the common bile duct. After cystectomy, no recurrence was seen in follow-up.
cm occupying the lesser sac with a loop of the duode-
umum stretched over the mass was seen (Figure 2). The
operative area was protected by a 0.5% cetremide solu-
tion, and the cyst was aspirated and the germinal mem-
brane was extracted (Figure 3). There was no communi-
cation between the ectocyst and the pancreatic ducts. A
postoperative cholangiography was done to check the pa-
tency of the common bile duct. The lower end of the com-
mon bile duct traversed the medial wall of the ectocyst, as
confirmed during cholangiography. External draining of
the cavity was done. Hydatid serology was negative. The
patient was discharged on albendazole, with an unevent-
ful follow-up for the next 2 years.

DISCUSSION
Pancreas is an uncommon site for a hydatid cyst, even
in countries where echinococcal disease is endemic.
The most probable route of pancreatic infestation is
hematogenous dissemination after passage of the em-
broyo through both liver and lung. Migration of embry-
os down the bile duct into the pancreatic duct via the
lymphatic circulation from the intestinal mucosa to the
pancreas or by portal blood into pancreatic veins has
also been suggested, these being less likely, but other
possible routes.4 Involvement of the pancreas in hydatid
disease has the following distribution pattern: in head,
57%; body, 24%; and tail, 19%.5

Clinical presentation is variable and insidious, de-
pending on the location and the size of cyst.2 Epigastric
pain, discomfort, vomiting and weight loss are the
main symptoms.6 Obstructive jaundice is caused by
the extrinsic compression of the common bile duct by
cysts located in the head of the pancreas.7 Cholangitis,
duodenal stenosis or fistula, acute and chronic pancre-
atitis, pancreatic abscess and pancreatic fistula due to
compression and erosion into the pancreatic ducts are
unusual complications of hydatid cysts involving the
head of the pancreas. Cysts located in the body or tail
of the pancreas are virtually symptomless and may be
detected only as the presence of a mass and its subse-
quent effect. Cysts in the body and tail of the pancreas
may be asymptomatic or may present as a palpable
mass. Mesenteric vein thrombosis and segmental por-
tal hypertension due to splenic vein thrombosis are
uncommon presentations of cysts in the body and tail
of pancreas.8-10 Rarely, the cyst ruptures spontaneously
into the peritoneal cavity, or gastrointestinal tract and
abscess formation occurs.11

Diagnosis is seldom made preoperatively unless
hydatid disease is suspected. A high level of clinical
suspicion with laboratory and imaging studies some-
times helps in making the diagnosis. Imaging

studies used are ultrasound, computed tomography
and magnetic resonance imaging (MRI), but these
methods have limited sensitivity in making a specific
diagnosis because of the considerable overlap of im-
aging features.12 Identification of a hydatid cyst as a
choledochal cyst is based on the presence of intimal
case report

contact between the hydatid cyst and the lower end of common bile duct.

The surgical removal of the cyst is a definitive treatment; and to prevent dissemination, the protection of the operative field and sterilization of the cyst with a scleroidal solution are necessary.1 Depending on the site, various methods of surgical treatment have been used. Cysts located in the head of pancreas have been treated by various methods. Pericystectomy with drainage of the residual cavity is the technique of choice.11,13 Pericystectomy can be total or partial. If the cyst is communicating with the main pancreatic duct, then distal pancreatectomy is the procedure of choice, or a cystoenteric anastomosis. Partial pericystectomy is the choice where there is an inadvertent risk to surrounding structures; otherwise, total pericystectomy is preferable. The Whipple resection, or marsupialization, has been done in some cases of hydatid cyst of the pancreatic head. Percutaneous drainage of the cyst is a good alternative to surgery in patients with high surgical risk; and in such cases, it must be combined with medical chemoprophylaxis using albendazole.14 Hydatid cyst in the head of the pancreas is extremely rare, but should be included in the differential diagnosis of cystic lesion of the pancreas.

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