Case report

A vanishing pseudocyst in the remnant pancreas after pylorus-preserving pancreatoduodenectomy

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We report a 74-year-old Japanese woman with a spontaneously vanishing pseudocyst in the remnant pancreas after pylorus-preserving pancreatoduodenectomy for intraductal papillary-mucinous adenoma of the pancreas. A cystic lesion appeared in the remnant pancreas 6 months after the operation and had disappeared 3 months later. When a cystic lesion is encountered in the remnant pancreas after pancreatectomy for mucin-hypersecreting tumor of the pancreas, pseudocyst, as well as recurrence, should be considered in the differential diagnosis. Additional resection would likely cause considerable morbidity, with loss of endocrine and exocrine functions.

Key words: intraductal papillary-mucinous tumor of the pancreas, pseudocyst, remnant pancreas

Introduction

In adults, 70% of cystic lesions of the pancreas are pseudocysts, while only 10%–15% are neoplastic cysts.¹ However, pseudocysts are sometimes difficult to differentiate from cystic neoplasms, despite the recent progress in diagnostic imaging modalities, especially when the cystic lesion appears in the remnant pancreas after an operation for a mucin-hypersecreting tumor. The discrimination of benign and neoplastic cysts is difficult, in part because mucosal extension of atypical epithelium is common. If the cystic lesion is a pseudocyst, conservative or nonsurgical approaches may be warranted, because reoperation involves great risks. We report a patient who had an operation for a mucin-hypersecreting tumor in whom follow-up radiographic imagings showed the appearance and subsequent disappearance of a cystic lesion in the remnant pancreas.

Case report

A 74-year-old Japanese woman was admitted to a nearby hospital for the evaluation of upper abdominal pain. Ultrasonography (US) and computed tomography (CT) disclosed a cystic lesion in the head of pancreas. She had no history of alcohol abuse, pancreatitis, or abdominal trauma. On admission, no abdominal mass was palpable. Serum amylase level was slightly elevated (172 U/l). Carcinoembryonic antigen (CEA; 0.4 ng/ml) and carbohydrate antigen 19-9 (CA19-9; 13.5 U/l) levels were normal. Endoscopic ultrasonography demonstrated a multicellular cystic lesion, 2 cm in diameter. CT revealed no solid components in the cystic lesion (Fig. 1). Magnetic resonance cholangiopancreatography (MRCP) confirmed that the mass measured 3 cm, and the main pancreatic duct was not dilated (Fig. 2). Endoscopic retrograde cholangiopancreatography (ERCP) revealed a communication of the cystic lesion with the main pancreatic duct (Fig. 3). The papilla of Vater was enlarged, and the orifice was widened because of profuse mucin excretion. Pylorus-preserving pancreatoduodenectomy (PPPD) was performed, with the tentative diagnosis of mucin-hypersecreting tumor of the pancreas. Postoperative histopathological examination revealed that the cystic tumor was an intraductal papillary-mucinous adenoma with moderate dysplasia. The surgical margins were free of neoplastic epithelium. At the time the patient was discharged, CT and MRCP showed no abnormal findings in and around the remnant pancreas. The patient was discharged on postoperative day 57.

Follow-up CT of the abdomen 6 months after the operation detected a unilocular cystic lesion, 1 cm in
diameter, in the remnant pancreas adjacent to the pancreatojejunostomy (Fig. 4a). MRCP confirmed the CT findings (Fig. 4b). It was clear by the radiographic studies that the cystic lesion existed in the remnant pancreas. We elected to only follow these findings, because the cyst was only 1 cm in size and there were no solid components, although recurrence of the intraductal papillary-mucinous tumor could not be completely ruled out.

Follow-up CT and MRCP 3 months later showed disappearance of the cystic lesion in the remnant pancreas (Fig. 5). The remnant pancreas demonstrated atrophy of the parenchyma and dilatation of the main pancreatic duct.

Fig. 1. Computed tomography (CT) scan showing a cystic lesion, without a solid component, in the head of the pancreas (arrowhead)

Fig. 2. Magnetic resonance cholangiopancreatography (MRCP) demonstrating a cystic lesion, 3 cm in diameter, in the head of pancreas (arrowhead). The main pancreatic duct is not dilated

Fig. 3. Endoscopic retrograde cholangiopancreatography (ERCP) showing a communication of the cystic lesion with the main pancreatic duct (arrowhead)

Fig. 4a,b. A cystic lesion, 1 cm in diameter (arrowheads), appearing in the distal portion of the remnant pancreas 6 months after the operation. a CT and b MRCP