

**NATURAL COURSE AND OUTCOME OF CYSTIC LESIONS IN THE PANCREAS**

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**BACKGROUND:** The number of patients identified with cysts of the pancreas is increasing with the increase of high-quality cross-sectional imaging. Appropriate management is controversial as their natural history is relatively unknown. This study was undertaken to assess the natural course of pancreatic cysts, clinical outcome and malignant potential.

**METHODS:** From 1995 to 2008, radiology records were reviewed for the presence of cystic lesions of the pancreas (CLP). Patient demographics, cyst characteristics, laboratory values, surgical procedures and available pathology were collected. Analysis was performed to identify associations between cyst and patient characteristics, and selection of operative versus non-operative management.

**RESULTS:** A total of 153 patients were found to have a pancreatic cyst on imaging. Patients less than 18 years old or with a history of pseudocysts, pancreatitis, multi-cystic diseases or solid pancreatic tumor were excluded. A total of 82 patients were included, with a mean age at time of diagnosis of  $64.4 \pm 16.7$  years and a median follow up period of 28.3 months. The majority of patients were asymptomatic. Mean cyst size was  $1.36 \pm 1.05$ cm, with 75.6% of patients having a solitary cyst. Thirteen patients underwent surgery (1 ductal adenocarcinoma, 4 intraductal papillary mucinous neoplasms, 4 serous cystadenomas, 2 simple cysts, 1 pseudocyst and 1 pancreatitis) with 9 on initial presentation. Of the 4 patients with mucinous histology, all had an age at diagnosis >60 years-old with 3 being male. All of them had a size >1.5cm and were loculated, and all underwent operative intervention on initial presentation. Statistical significance was only seen with gender ( $p < 0.05$ ) and loculations ( $p < 0.01$ ).

**CONCLUSIONS:** Our data shows that the majority of pancreatic cysts found on radiographic imaging are asymptomatic, solitary and small. Malignant transformation in these types of cysts is unlikely and the majority of them can be followed safely radiographically.