Introduction

Cystic lesions of the pancreas consist of a spectrum of benign, pre-malignant, and malignant lesions. In the past, cystic neoplasms of the pancreas were thought to be relatively rare, but the widespread use of cross sectional imaging has dramatically increased ability to detect these lesions. Although the vast majority of pancreatic cysts are discovered incidentally, large or invasive lesions may produce sufficient symptoms to cause the patient to seek medical attention. Cystic neoplasms are often confused or misdiagnosed as pseudocysts or peripancreatic collections of inflammatory fluid that may morphologically mimic cystic neoplasms. Furthermore, the presenting symptoms of pseudocysts may be identical to the symptoms associated with cystic neoplasms (**Brugge et al.,2004b)**.

The prevalence of pancreatic cysts has been examined with autopsy examinations of the pancreas in adults without known pancreatic disease. The prevalence of pancreatic cysts found at autopsies in Japan was approximately 73 of 300 autopsies (24.3 %) cases (**Kimura et al.,1995)**, cysts were located throughout the pancreatic parenchyma and were not related to chronic pancreatitis **(Compton , 2000).**

Most patients with a pancreatic cystic lesion have non-specific symptoms. The cystic lesion is usually found with computed tomography(CT) or ultrasonography(US) imaging performed for the evaluation of another condition. When symptoms are present, the most common presentation is recurrent abdominal pain, nausea, and vomiting as result of mild pancreatitis **(Wiesenauer et al.,2003**). Cystic lesions that cause duct compression or involvement of the main pancreatic duct are prone to cause pancreatitis. Chronic abdominal pain and jaundice are a rare presentation of a cystic lesion and

suggests a malignancy or a pseudocyst. Patients with a cystic malignancy will present with symptoms and signs similar to pancreatic cancer, i. e. pain, weight loss, and jaundice **(Holly et al.,2004)**. Pseudocysts may arise after an episode of acute pancreatitis or insidiously in the setting of chronic pancreatitis and are associated with chronic abdominal pain. It is common for cystic lesions associated with pancreatitis to be diagnosed as pseudocysts and be confused with cystic neoplasms that also cause pancreatitis **(Sand and Nordback .,2005**).

The differential diagnosis of a cystic lesion of pancreas is very wide and often causes confusion. Since the treatment of a pseudocyst and cystic neoplasm are so different, it is incumbent on the clinician to first differentiate between these major categories of lesions **(Caillot et al.,2000).**

CT is an excellent test for cystic lesions of the pancreas because of its widespread availability and ability to detect cysts **(Curry et al.,2000).**

Magnetic Resonance(MR) imaging is used increasingly because of its ability to determine if there is involvement of the main pancreatic duct with high resolusion **(Fukukura et al.,2003)**. Ultrasonography whether performed transabdominally or intraoperatively is generally not helpful (**Kubota et al.,1997)**. Endoscopic ultrasound (EUS) has been used to diagnose cystic lesions of the pancreas and guide fine needle aspiration (FNA) (**Brugge ,2004a).**

Surgical resection is the treatment of choice for pre-malignant cystic neoplasms. The decision to resect a lesion, however, is based on the presence or absence of symptoms, the risk of malignancy, and the surgical risk of the patient. High risk patients with low grade cystic neoplasms may be monitored with periodic CT/MRI scanning or EUS-FNA **(Irie et al.,2004)**. The increasing safety of surgical resection has prompted the use of surgery for a wider range of lesions (**Fernandez del Castillo et al., 2003)**.

Cystic neoplasms are slow growing and 19 % will demonstrate an increase in diameter at 16 months **(Spinelli et al.,2004)**. Surgical resection is associated with a morbidity of 27.9 %, with a reoperation rate of 7.3 % and a very low mortality rate (**Bassi et al., 2003)**. The overall 5-year survival for patients having intra-ductal papillary mucinous neoplasms (IPMNs) without invasive cancer was 77 %, compared with 43 % in those patients with an invasive component **(Sohn et al., 2004)**.