

Summary and Conclusion

Cyst is defined as closed cavity or sac, normal or abnormal, lined by epithelium, and especially one that contains a liquid or semisolid material . In the pancreas, however, this term has been applied to a variety of lesions, ranging from radiologically low-attenuated tumors, to any process that forms a cavity, and in some cases, whether it has an epithelial lining or not. Therefore, the term cyst has become associated with some pancreatic lesions that do not fulfill the dictionary definition of the term.

Cystic lesions of the pancreas consist of a spectrum of benign, pre-malignant, and malignant lesions. Among cystic lesions of the pancreas, pseudocysts, SCA, MCN, and IPMN are the most common lesions. While pseudocysts are known to make up the majority of lesions, primary cystic neoplasms reportedly account for about 10-15% of pancreatic cysts .

Clinical suspicion for the presence of a pancreatic pseudocyst usually is aroused first by the persistence of abdominal pain following resolution of pancreatitis. Abdominal pain that persists for longer than 3 weeks after recovery from pancreatitis is a presenting symptom in 80-90% of patients with pancreatic pseudocysts, Abdominal fullness, nausea and vomiting, and weight loss as occurring in 40-50% of patients with pseudocysts.

Up to 40–75% of patients with cystic pancreatic tumours are asymptomatic, with the majority being detected incidentally on imaging modalities. Symptoms, when present, are a result of pressure effects and are more common in mucinous lesions. The most commonly encountered symptoms are abdominal pain, weight loss and nausea.

A precise diagnosis of pancreatic disease is often only possible through the use of a wide battery of tests. The results of such tests should be viewed in

the light of the clinical information since all available procedures may not yield concordant data. A variety of diagnostic tools including computed tomography(CT) scanning, transcutaneous and endoscopic ultrasound, ERCP and cyst aspiration, chemistry and cytology are used for the diagnostics of pancreatic pseudocysts. A variety of cyst fluid tumor markers have been studied to help differentiate between the major types of cystic lesions. Recently molecular studies of cyst fluid DNA have revealed kRAS, tumor suppressor gene mutations, telomerase activity in mucinous cystic lesions .

The diagnosis of a pancreatic pseudocyst is more dependent upon the clinical history and the associated findings of chronic pancreatitis. Pseudocysts mostly appear as unilocular round, fluid-filled cavities surrounded by a dense wall, associated with parenchymal changes such as calcifications and atrophy.

Patients suspected of having a cystic neoplasm of the pancreas should undergo a CT scan with contrast as the initial test. If no lesion is seen in the pancreas, it is very unlikely that a clinically significant neoplasm is present.

The management of pseudocysts also depends on the aetiology. Cystic pancreatic lesions, arising after an episode of acute pancreatitis, may resolve without treatment over a period of 4–6 weeks, whereas in chronic pancreatitis spontaneous pseudocyst resolution occurs rarely as maturation of the cyst wall is already complete . The aim of endoscopic treatment is to create a connection between the pseudocyst cavity and the gastrointestinal lumen. There are various methods for carrying out an endoscopic drainage and it can be accomplished by either a transpapillary or a transmural approach. Despite recent developments in minimally invasive techniques and further progress in CT- and ultrasound-guided therapy, surgical drainage is still a principal method in the management of pancreatic pseudocysts. It traditionally includes internal and external drainage and excision. Percutaneous drainage involves either simple percutaneous

aspiration or percutaneous catheter placement, most commonly performed under CT control. It is a valuable alternative to operative management, as maturation of the pseudocyst wall does not have to be awaited. Further indications are symptomatic, expanding immature cysts and patients with infected pseudocysts.

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.

The increasing safety of surgical resection has prompted the use of surgery for a wider range of lesions. However, serous cystadenomas do not require resection except for relief of symptoms. Since most mucinous cystic neoplasms are located in the tail of the pancreas, a distal pancreatectomy is sufficient for these pre-malignant lesions.

It is concluded that, early diagnosis of pancreatic cystic lesions and its types has a major role in the selection of the proper management policy in the proper time, and so increase the patients cure rate and improve the prognosis.