CYSTIC NEOPLASMS OF THE PANCREAS CLINICO-PATHOLOGICAL STUDY

Thesis

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By

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بسم الله الرحمن الرحيم

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TO MY PARENTS

TO WHOM I OWED MY DEEPEST GRATITUDE

MY SISTER

MY FRIENDS

&

My dearest Wife

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LIST OF ABBREVIATIONS

CT	Computed Tomography
MRI	Magnetic Resonance Imaging
CBD	Common Bile Duct
PSPD	posterior superior pancreaticoduodenal
ASPD	anterior superior pancreaticoduodenal
AIPD	anterior inferior pancreaticoduodenal
SMA	Superior mesenteric artery
SMV	superior mesenteric vein
IMV	inferior mesenteric vein
LGA	Left gastric artery
CHA	Common hepatic artery
VHL	von Hippel–Lindau syndrome
SCNs	Serous cystic neoplasms
MCNs	Mucinous cystic neoplasms
IPMNs	Intraductal papillary mucinous neoplasms
CA	Cancer antigen
LFTs	Liver Function Tests
KFTs	Kidney Function Tests
CEA	Carcinoembryonic antigen
NPO	Nothing Per Oral
DIC	Disseminated Intravascular Coagulation
SCPP	Solid Cystic Pseudopapillary
FNAC	Fine Needle Aspiration Cytology
CNP	Cystic Neoplasm of the Pancreas

ABSTRACT

Primary cystic neoplasms of the pancreas are rare neoplasms, comprising about 10–15% of all pancreatic cystic masses and only 1% of primary pancreatic lesions of unknown origin. The importance of identifying those neoplasms became clear because of their latent or overt malignant potential.

In this study, a total of 34 patients were identified who underwent operative therapy for pancreatic cystic neoplasms in the National Cancer Institute from 2002 till 2008. The most frequent presentation was found to be upper abdominal pain and abdominal mass, the surgical management for patients was mainly distal pancreatectomy due to the prevalence of distal pancreatic tumors, Whipple's procedure and triple bypass were also done.

The main pathology was solid cystic pseudopapillary tumor followed by mucinous cystadenocarcinoma. Mucinous cystic neoplasm, Intraductal mucinous neoplasm and serous adenoma were also present. Follow up of the patients ranged from one to four years, where three patients had liver metastasis, only two of those had adjuvant chemotherapy.

Key words: Cystic neoplasms, Intraductal papillary mucinous neoplasm, mucinous cystic neoplasm, pancreas, serous cystic neoplasm, solid pseudopapillary neoplasm.

INTRODUCTION
AND
AIM OF THE WORK

INTRODUCTION

Cystic lesions of the pancreas have long posed diagnostic and treatment dilemmas to surgeons and patients. While many identified lesions may prove to be inflammatory pseudocysts or other benign conditions, the possibility of malignancy within a cystic lesion necessitates a thorough diagnostic work-up. Technical advances in radiology, advances in pathology and surgery have led to a recent re-classification of cystic neoplasms of the pancreas ***(Christopher .Sonnenday et al., 2007).***

Cystic neoplasms comprise only about 10%of all pancreatic cystic lesions; since most of the latter are pancreatic pseudo cysts ***(Fernandez-del Castillo et al., 1995), (Matsunou , Konishif, Yamamichi , et al., 1990)***.

They also comprise 1-10% of all pancreatic neoplasms ***(LI et al., 1998), (Fernandez-del Castillo et al., 1995)***. Cystic neoplasms of the pancreas are classified histologically as benign, also known as microcystic (serous cystadenoma), and potentially malignant, also known as macrocystic (mucinous cystic neoplasm) ***(COMPAGNO et al., 1998), (COMPAGNO et al., 1990).*** Other uncommon types of pancreatic cystic neoplasms include intraductalpapillary-mucinous neoplasm, papillary cystic neoplasm, endocrine cystic tumor, cystic teratoma, and acinar cystadenocarcinoma ***(LI et al., 1998)***.

The Advances in radiology, pathology, gastroenterology, and surgery have led to a recent consideration of the classification of cystic neoplasms of the pancreas, reflecting an improved understanding of diagnosis, prognosis, and treatment of these often challenging lesions.

While a large number of pancreatic cystic neoplasms may have gone undetected, the increased use of high resolution cross-sectional imaging, particularly computed tomography (CT), and high quality magnetic resonance imaging (MRI), has led to increased discovery of cystic lesions of the pancreas as a clinical entity ***(Fernandez-del Castillo et al., 2003)***.

The treatment of pancreatic cystic neoplasms is still controversial. Most authors, however, recommend resection due to the difficulties in differentiating benign from malignant tumors prior to surgery ***(Balcon IV et al., 2000)*.**

Unlike invasive ductal adenocarcinoma of the pancreas, many of cystic neoplasms of the pancreas have quite favorable prognosis following surgical resection, even when invasive cancer is encountered.

AIM OF THE WORK

The aim of this study is to highlight the clinico-pathological presentation of the cystic neoplasms of the pancreas, with emphasis on the role of surgical management and its outcome. This was done through reviewing the medical records of patients of cystic neoplasms of the pancreas subjected to surgical management in the period from January 2002 till December 2008. Data collected included clinical, radiological and pathological data, investigation done surgical procedure, adjuvant therapy, if present, and follow up.

REVIEW OF LITERATURE

ANATOMICAL CONSIDERATIONS

When discussing the surgical anatomy of the pancreas our aim is to review the most important anatomical aspects that aid the surgeon in resection. When dealing with limited pancreatic resection especially in patients with low malignant potential tumors, review of the embryology, anatomy of the ductal system, vascular anatomy and radiological anatomy is essential.

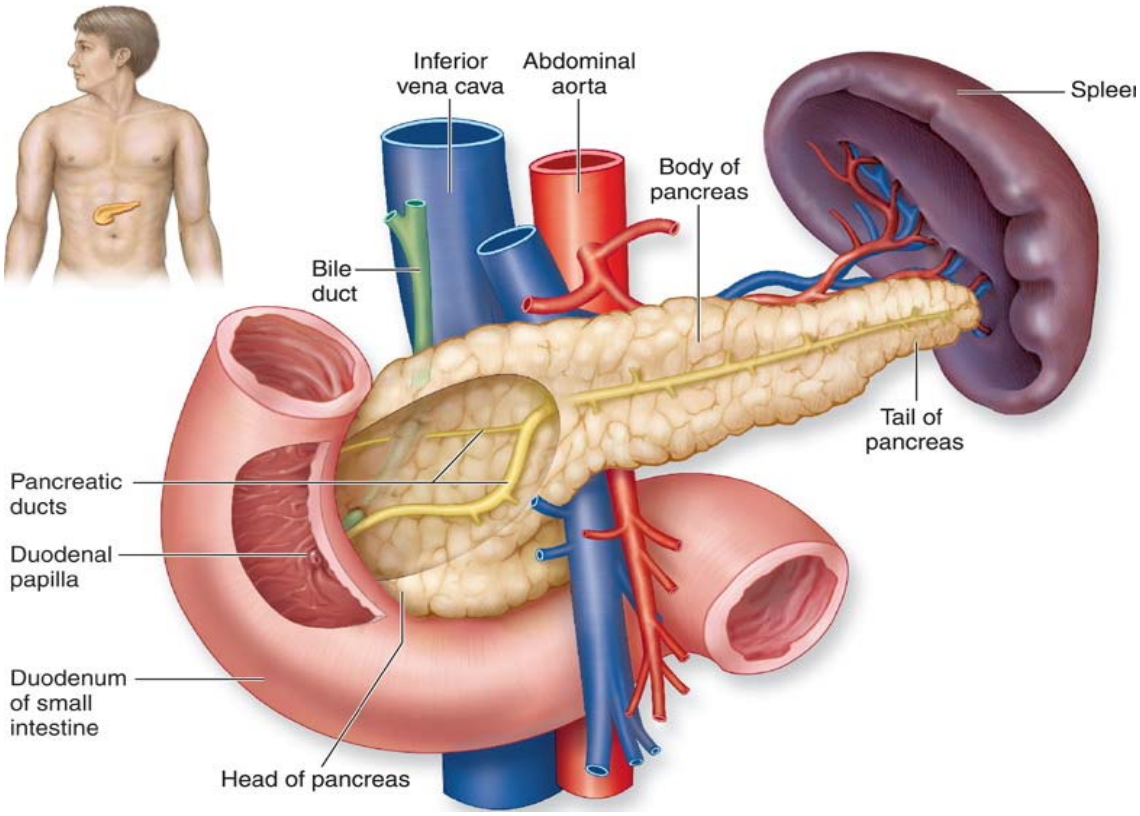

Figure (1) Anatomy of the Pancreas