بسم الله الرحمن الرحيم

شبكة المعلومـــــات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

﴿ قـــسـم ﴾

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد اعدت دون آية تغيرات

يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of
15 – 25c and relative humidity 20-40 %

بعض الوثائق الأصلية تالفة

بالرسالة صفحات

لم ترد بالأصـــل

MODERN MANAGEMENT OF ACUTE PANCREATITIS

ESSAY

Submitted in Partial Fulfillment
For the Master Degree in General Surgery

By

AHMED IBRAHIM AHMED ESSAILY
(M.B.B.Ch.)

under supervision of

PROF.DR.NABIL MOHAMED HASSAN SHEDEED
Professor of General Surgery
BENHA, Faculty of Medicine

PROF.DR. AHMED SHAWKY EZZAT
Professor of General Surgery
BENHA Faculty of Medicine

DR. HANY SALAH EL DIN MOHAMED
Assistant Professor of General Surgery
BENHA, Faculty of Medicine

Zagazig University
2000

بسم الله الرحمن الرحيم


وَفِيٓ أَنفُسِكُمۡۚ أَفَلَا تُبۡصِرُونَ ﴿٢١﴾

صدق الله العظيم

سورة الذاريات


ACKNOWLEDGEMENTS

All thanks to ALLAH, who wants this work to exist.

I would like to express my deepest appreciation and gratitude to **Professor Dr. Nabil Mohamed Hassan Shedeed,** Professor of General Surg. for his sincere help, constant supervision, teaching and guidance.

I would like to express my deepest gratitude and thanks to **Professor Dr. Ahmed ShAwky Ezzat,** Professor of General Surgery for his sincere help, constant supervision, teaching and guidance.

I am sincerely grateful to **Professor Assistant Dr. Hany Salah El Din Mohamed,** Assistant Professor of General Surgery for his brotherly sincere constant supervision and energetic help in details of this work with constructive criticism to ensure that this work would reach up dated level.

I feel obliged grateful to all my professors, my seniors and colleagues for their help.

CONTENTS

INTRODUCTION

Acute pancreatitis is an emergency which continuous to challenge the surgeon. (**Johnson, 1995**) .The exact mechanisms which trigger the autodigestive processes causing it are not known but different theories have been described (**Andren et al; 1996, Bradley and Zeppa 1986**). Despite numerous experimental and clinical investigations the pathogenesis remains obscure **(Steimberg and Tenner, 1994)** . Embryological and anatomical variations may have a relation to acute pancreatitis **(Skandalokis et al; 1979).**
Approxmitely ten percent of patients die in their first attack while half will follow a mild uncomplicated course.**(Ranson, 1984).**
Recent development in the mangement is directed towards the early prediction of the severity of pancreatitis and its management accordingly **(Johnson, 1999)** .

AIM OF THE WORK

A review of the modern management of acute pancreatitis including all important methods that can predict the severity in a trial to reduce the morbidity and mortality rate in patients with acute pancreatitis, and the modern methods of management which may have an impact on the outcome.

EMBRYOLOGY OF THE PANCREAS

The pancreas develops from a ventral and a dorsal bud **(figure 1);** These appear during the fourth week of life, rotate to the right and fuse. With rotation of the duodenum, the pancreas shifts to the left and takes up its definitive position. Most of the duct which drains the dorsal bud joins that from the ventral bud to form the main pancreatic duct **(of Wirsung),** the rest of the dorsal duct becomes the accessory pancreatic duct (**of Santorini**). This enters the duodenum **2.5cm**.proximal to the main duct. The main pancreatic duct and the common bile duct converge as they enter the second part of the duodenum. The majority of individuals have a short common channel, and only **10%** retain an **ampulla of Vater** into which these two ducts enter separately. **(Forrest, et al., 1986)**.

Early in the seventh week the two parts of the pancreas meet and fuse After this the accessory duct undergoes little or no enlargement, while the duct of the ventral part increases in size and forms the terminal of the main duct of the gland.The pancreatic parenchyma is derived from endoderm, which forms a networke of tubules.Acini begins to develop from cell clusters around the end of these tubules or primitive ducts. The islets of Langerhans develop from groups of cells but separate from the tubules and soon come to lie between the acini. Insulin secretion begins at about 20 weeks.The pancreas is composed of masses of serous acini arranged into many small indistinct lobule groups, intralobular and interlobular connective pancreatic islets of Langerhans. **(Skandalakis, et al; 1979).**

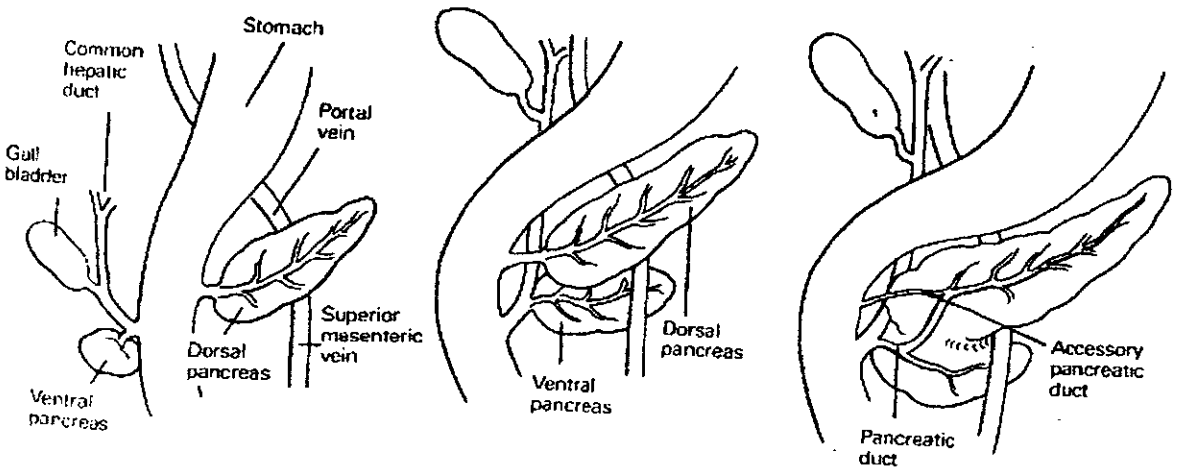

Fig. 3.1 The development of the pancreas

ANATOMY OF THE PANCREAS

The pancreas lies almost transversely in the retroperitoneum,behind the stomach, between the duodenum on the right and the spleen on the left. It is arbitrarily divided into a head with its uncinate process, a neck ,a body and a tail .No other organ is so closely surrounded by so many anatomic entities (such as the duodenum, stomach, spleen, left adrenal transverse mesocolon and colon ,left kidney, right ureter and jejunum).
[Figures 2 and 3 shows anterior and posterior relation]

1.Head of the pancreas:

It lies at level of the second lumbar vertebra near the midline .
The head of the pancreas is flattened and has an anterior and posterior surface . **(fig .4 a).**The distal portion of the common bile duct (C.B.D) may lie behind the pancreatic head in a groove (16.5%) or it may be partially or totally embedded in the pancreatic substane(83%). **(Fig .4b)**

2.Uncinate process:

An extension of the head of the pancreas (which is very variable in size and shape) passes downward and slightly to the left , forming the uncinate process.It passes behind the superior mesenteric vessels , and in front of the aorta and I.V.C.In sagittal section, the uncinate process lies between the aorta and the superior mesenteric artery, having the left renal vein above and the duodenum below .**(Fig.5)**

3.Neck of the pancreas:

The neck of the pancreas is **1.5** to **2.0cm**.long.It is partially covered anteriorly by the pylorus and extends to the right as far as the origin of the anterior superior pancreatoduodenal artery from the gastroduodenal artery ,the left boundary of the neck is arbitrary.Posterior to the neck , the portal vein is formed by the confluence of the superior mesenteric and splenic veins.Near the inferior of the pancreatic neck ,one can often see the terminations of the inferior pancreatoduodenal vein and right gastroepiploic vein where they drain into the superior mesenteric or splenic vein or into the portal vein proper.

4. Body 0f the pancreas:

The body of the pancreas lies at the level of the first lumbar vertebra and begins at the left border of the superior mesenteric vein. The anterior surface of the body of the pancreas is covered by the double layer of peritonium of the omental bursa that separates stomach from pancreas. The posterior surface of the body of the pancreas is in contact with the aorta, the left adrenal gland and the kidney, the left renal vessels, the organ of the superior mesenteric artery, the left crus of the diaphragm, and the splenic artery and vein, which run along its superior border .

5.Tail of the pancreas:

The tail of the pancreas lies at the level of the twelfth thoracic vertebra, and its tip usually reaches the hilus of the spleen .The tail of the pancreas is relatively mobile, its tip reaches the hilus of the spleen in 50% of the cases. **(Skandalakis, et al; 1979).**

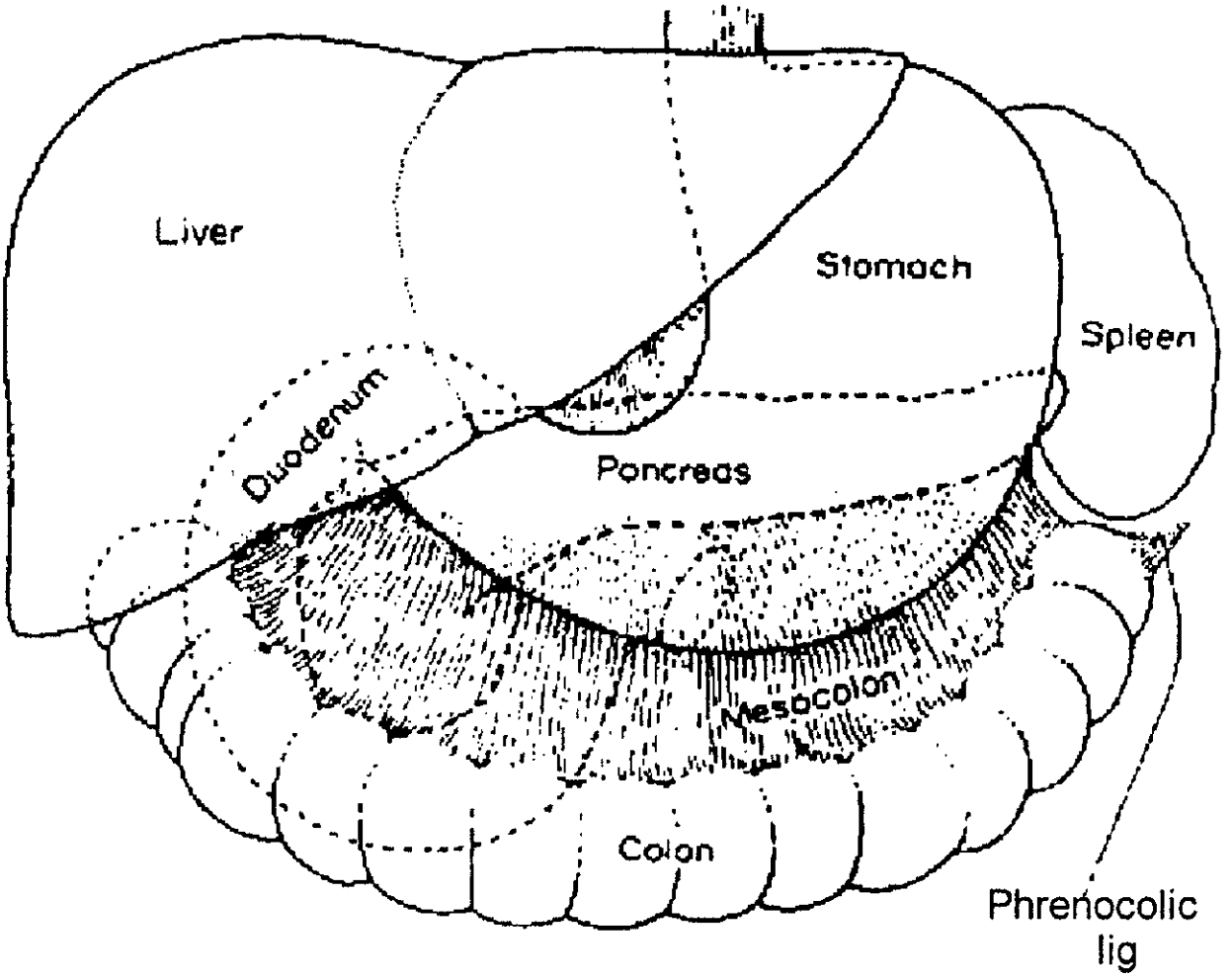

Fig. 2. Anterior relationships. (From JE Skandalakis et al. Anatomical complications in pancreatic surgery.Contemp Surg 15:17, 1979)