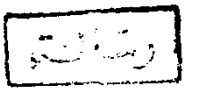
EXOCRINE TUMOURS OF THE PANCREAS : AN UPDATE

An Essay

Submitted for Partial Fulfillment of Master Degree

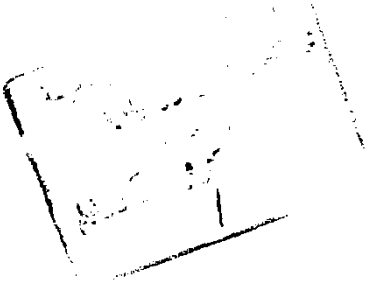
In **General Surgery**



By

Fawzy El Sherpeiny El Said

M.B.B.Ch



Under Supervision of

Prof. Dr. Shamel Abd-Alla Ali

Professor of General Surgery
Faculty of Medicine
Ain Shams University

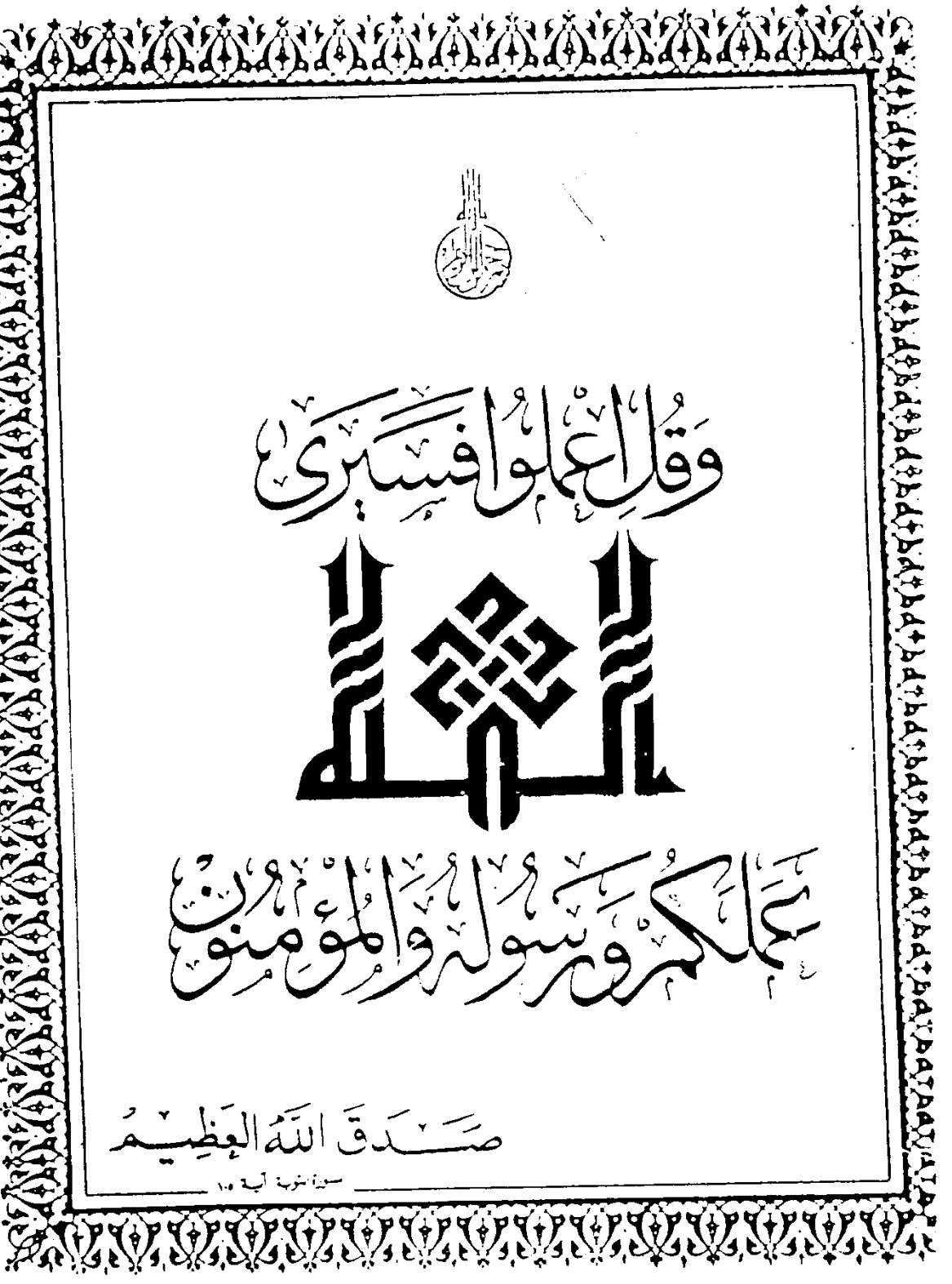
Dr. Mahmoud A.S. El-Meteini

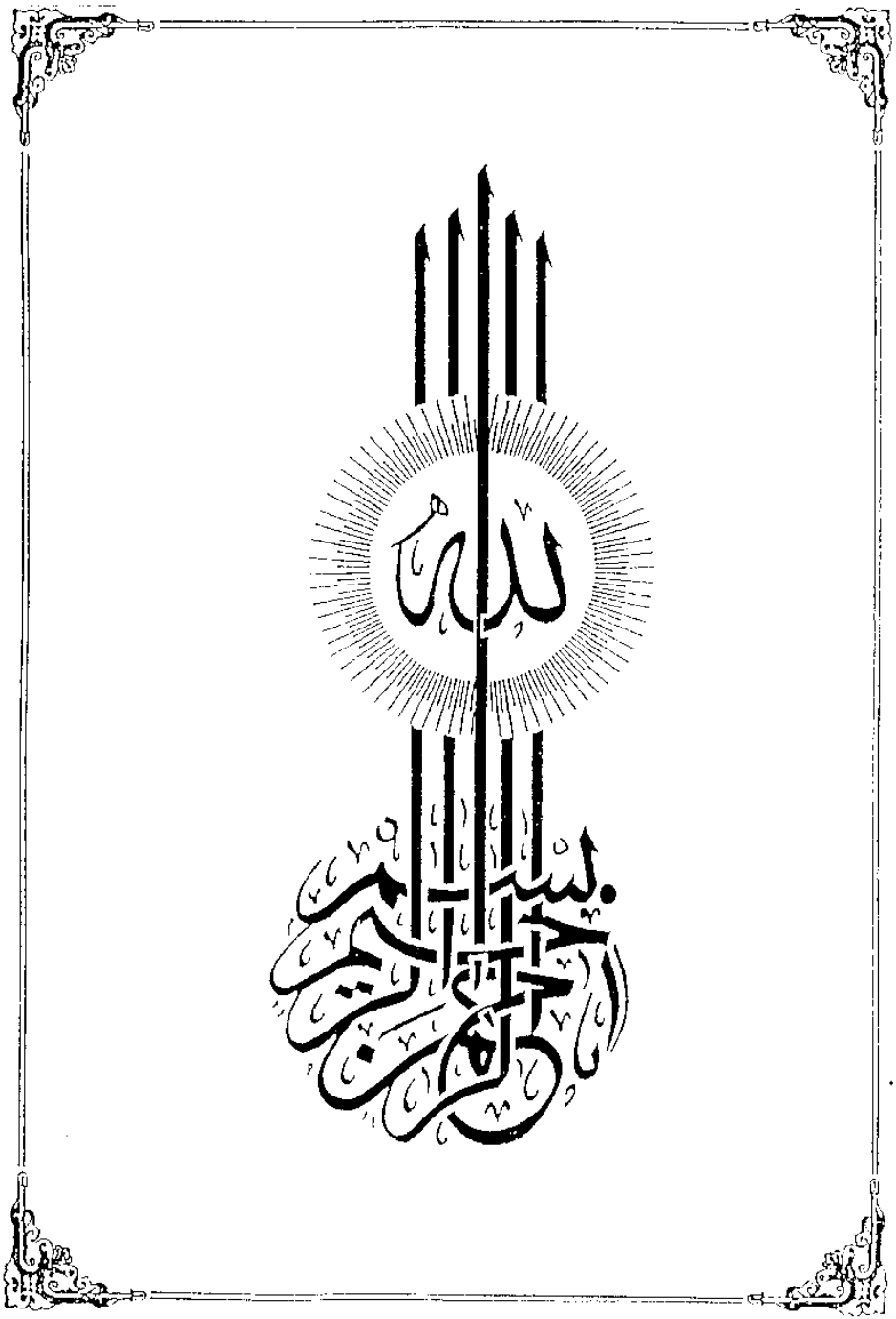
Lecturer of General Surgery
Faculty of Medicine
Ain Shams University

Faculty of Medicine

Ain Shams University

1995





ACKNOWLEDGMENT

First and foremost thanks are to ALLAH, the most beneficial and merciful.

I would like to express my deep gratitude and extreme indebtness to **Prof. Dr. Shamel Abd-Alla Ali,** Professor of General surgery, Faculty of Medicine, Ain Shams University for his continuous supervision, constructive criticism and strenuous efforts without which, this work would have never been accomplished.

I am also indebted to **Dr. Mahmoud A.S. El-Meteini,** Lecturer of General Surgery, Faculty of Medicine, Ain Shams University for his continuous encouragement, supervision and guidance.

CONTENTS

List of Figures

List of Tables

INTRODUCTION

Exocrine tumours of the pancreas is one of the five most commonly occurring tumours in the world with an incidence of 12/100,000 population/year. The reported incidence has been doubled in the last 20 years. This is partly as a result of more accurate diagnosis and partly because the condition has become more common (Ellzabeth et al., 1989).

It affects males and females with the same degree and occurs more frequently in older people; about half of all patients are aged over 70 years at the time of onset (Fadden and Reber, 1994).

Jaundice is the most common complaint at admission being present in 73% of the patients. Abdominal pain, back pain or both are present in 71% of the patients. Weight loss was observed in 61% of the patients (Robert, 1994).

Surgical extirpation remains the only treatment offering the possibility of cure or optimal palliation in patients with exocrine tumours of the pancreas (Hannoun et al., 1993).

In this essay we will discuss the natural history of exocrine tumours of the pancreas together with the recent trends of management.

EMBRYOLOGY AND ANATOMY

The pancreas develops from the endoderm of the duodenum at the junction of the foregut and midgut. It is formed by two pancreatic primordia; a dorsal and a ventral one. At the end of the fourth week, the dorsal pancreatic primordium arises from the dorsal side of the duodenum while the ventral primordium arises slightly later, 32nd day, from the base of the hepatic diverticulum. Rotation of the ventral primordium and contact between the two pancreatic primordia takes places about 37th day and fusion occurs at the end of the sixth week. The ventral primordium is part of the head and uncinate process, while the dorsal primordium forms the body and tail. The duct of Wirsung is formed by the duct of the ventral pancreas and the distal portion of the duct of the dorsal pancreas and forms the main duct. The duct of Santorini is the proximal duct of the dorsal pancreas. The secretory acini appear during the third month. The islands of langerhans arise form the acini also at the end of the third month. Rotation and fusion of the pancreatic primordia are the only critical morphologic events. Malrotation of the ventral primordium in the fifth week results in an annular pancreas while fusion in the seventh week produces various possible ductal patterns (Fig.1) **(Skandalakis et al., 1993)**.

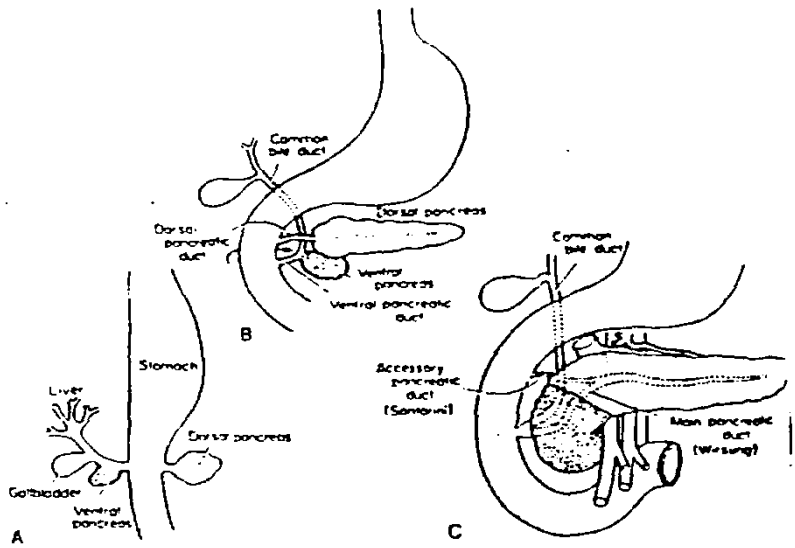


Fig. (1) : Development of the pancreas **(Skandalakis et al., 1993)**

Tabel (1) : Congenital anomalies of the pancreas
(Skandalakis et al., 1993).

Aplasia-hypoplasia	Pancreatic gall bladder
Hyperplasia-hypertrophy	Cystic fibrosis
Dysplasia	Pancreatic cysts
Variations and anomalies of	Rotational anomalies
the ducts "Pancres divism"	Ectopic pancreatic tissue
Annuar pancreas	Vascular anomalies

Annular pancreas is a thin flat band of normal pancreatic tissue surrounding the second part of the duodenum and continuing into the head of the pancreas on either side. The band may be partially or wholly free from the duodenum, or the pancreatic tissue may penetrate the duodenal muscularis. The ring of pancreatic tissue contain a large duct that usually enters the main pancreatic duct. This large duct, however, occasionally enters the duodenum independently. Duodenal stenosis at the level of the pancreatic ring is usual and if obstruction at the site of annulus exists before birth, hydramnios frequently is present. Half of the patients with annular pancreas do not have symptoms until adulthood. The symptoms are those of duodenal obstruction. The procedure of choice to treat duodenal obstruction caused by annular pancreas is duodenoduodenostomy, first proposed by Gross and Chisolm **(Gross and Chisholm, 1944).**

Ectopic and accessory pancreas is unusual pancreatic tissue in the stomach, duodenal or ileal wall, Meckel's