COMPLICATIONS OF LAPAROSCOPIC CHOLECYSTECTOMY

AN

ESSAY

SUBMITTED FOR THE PARTIAL FULFILLMENT

OF

THE REQUIREMENTS OF

THE MASTER DEGREE

IN

GENERAL SURGERY

BY

MOHAMED SEDIEK MOHAMED

M.B., B.Ch.

SUPERVISOR

DR. EL ZAHir ABU ELNAGA

Professor of General Surgery

Faculty of Medicine

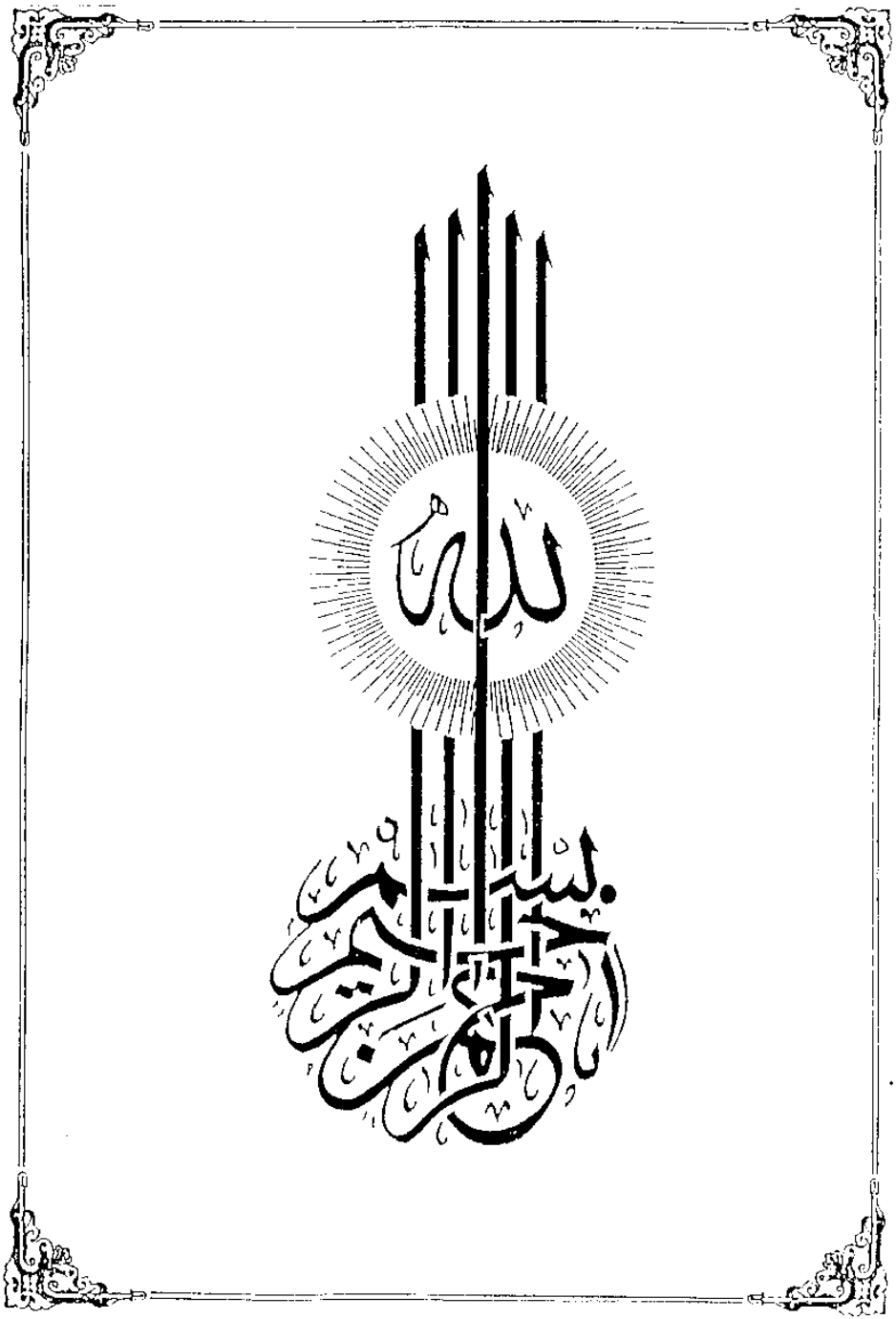
Ain Shams University

DR. HUSSEIN ABD EL ALIM BOSHNAK

Assistant Professor of General Surgery

Faculty of Medicine

Ain Shams University



TO THE MEMORY OF MY FATHER

WHO BY HIS EXAMPLE LEARN

ME HOW THE MAN SHOULD BE

ACKNOWLEDGEMENT

I would like to express my deep gratitude to Prof. Dr. El Zarif Abd El-Naby, Prof. of General surgery, Faculty of Medicine, Ain Shams University, for his generous help and his valuable direction all the way. He did not spare any facility or advice to make this work successful.

I am also deeply indebted to Dr. HUSSEIN ABD EL ALIM BOSHNAK, Assistant Prof. of General surgery Faculty of Medicine, Ain- Shams University, for his constant support and encouragement, kind guidance and supervision in setting up and organising the plan of this work.

CONTENTS

I INTRODUCTION

I- INTRODUCTION

Cholecystectomy performed using a midline or right upper quadrant incision has been the preferred therapy for gall stone disease shortly after its description by Beal, in 1882 (Beal, 1984).

The risks of death or major complications resulting from this operation are low and open cholecystectomy is regarded as the "gold standard" for patients with cholelithiasis (Mc sherry 1980). However traditional cholecystectomy is viewed by many nonsurgeon physicians and lay public as an operation that causes pain and disability and also results in adisfiguring scar.

Over the past two decades, many non surgical treatments for cholelithiasis have been discribed (Schoenfield, Berci, et al., 1990). Despite the successful removal or ablation of gall stones with some of these techniques, each is limited by the continued presence of a diseased gallbladder.

A method to remove the gallbladder using laparscopic guidance was recently described (Zucker, et al., 1991).

Laparoscopic cholecystectomy has significant merit and it is a major advance in the treatment of patients with gall stone disease.

Anecdotal reports of procedure-related deaths and bile duct injuries necessitate veiwing this operation with "coutious en thusiasm" (Zucker et al., 1991), and only the long-term results of patients treated by laparoscopic cholecystectomy will determine its role in the surgical armamentarium. The early results of this operation at washington university school of medicine have, been very favorable, and laparoscopic cholecystectomy has emerged as the procedure of choice for patients with symptomatic cholelithiasis. (Soper, 1991).

Laparoscopic cholecystectomy is a surgical technique first performed in france, has gained widespread acceptance among surgeons in united states. The abdominal cavity is inflated by carbon dioxide, avideo monitor is inserted via a lapatoscope placed periumbilically and the gall bladder is freed and removed from the liver bed by using small subcostal ports for access and dissection.

Intra-operative cholangiography is routinely performed,

but uncertainty exists about how best to manage choledocholithiasis. Compared with traditional cholecystectomy initial reports describing laparoscopic cholecystectomy cite shorter recovery times because no longe incision are made. Thus potentially reduce the cost and morbidity of cholecystectomy (Brandon, et al., 1991).

Laparoscopic cholecystectomy should be performed by surgeons who are trained in biliary surgery and knowledgeable in biliary anatomy, and as with all operations, it shoud be performed with meticulous attention to technique (Peters, et al., 1991).

Laparoscopy has been a standard procedure for the gynecologist for many years. General surgeons have had limited experience with procedure but considerable enthusiasm for it has developed recently becouse of the increasing interest in laparoscopic cholecystectomy.

As a result, laparoscopy will likely become a common procedure for most general surgeons, and laparoscopic cholecystecomy will become a common operation (Gadacz et al.,1991).

Laparoscopic cholecystectomy offers significant advant-

ages over the more conventional open procedure. For the patient population in general it has meant a very short hospitalization generally 24 hours or less-and return to normal activities whithin one week. Without a large abdominal incision. The number of wound complications such as infection and hernia drops drastically.

There are particular advantages in patients who is otherwise not a good risk for an upper abdominal procedure, for example patients are generally up and about the afternon of surgery, and the patients with pulmonary disease will have less likelihood of complication, from restriction of chest wall motion. (Daly, 1991).

II HISTORY

II- HISTORY

The term laparscopy refers to the examination of the abdominal cavity by means of a laparscope.

At the German Biological and Medical society meeting in 1901, Dr. Georg killing reported his initial experience with laparoscopic examination of the canine stomach and esophagus. In an anesthetized dog, he created a pneumopritoneum with air filtered through sterile cotton, inserted a cystocope into the abdominal cavity and viewed the viscera.

H.C. Jacobeus, 1911, of stocke holn first examined the abdominal cavity in patients with ascites. Unlike killing, Jacobeus introduced the trocar for the cystocope directly through the abdominal wall without first establishing a pneumopritoneum.

By one year later he had performed 115 procedures, with only one serious complication (bleeding) requiring open exploration (Jacobeus 1911).

The German hepatologist kalk introduced many instruments

including a new lens system for ablique viewing, and in 1929 was the first to advocate the dual trocar technique (Kalk 1929). This allowed insertion of operating instruments and open the way for diagnostic and therapeutic laparoscopy particulary of liver and gallbladder.

Over the ensuing years various gases were used for insufflation until 1933 when, ferves; recommended oxygen or carbon dioxide in preference to room air as the insufflating agent (Fervers 1933).

In 1938 Janos veress of Hungary described a new spring-Loaded needle for inducing pneumothorax (for the treatment of tuberculosis) which was adapted for use in creating a pneumo-peritonum; in safer fashion (Veress 1938).

During the 1960 s; a number of gynecologists such as patrick steptoe popularized laparoscopic sterilization, (Steptoe 1967). Which became accepted in England and caused a renewal of interest in laparoscopy as a gynecologic technique in the united states. While others reported the use of lapar-oscopic techniques for staging intra-abdominal tumors (Cuchiri et al., 1978).

Meanwhile the german gynecologist and engineer Kurt Semon 1987, incorporated new aspects of fiberoptics as well as carefully controlled intra-abdominal pressure instrumentation that was subsequently widely used and distributed. Somm 1987 also began using laparoscopic techniques for many diagnostic and therapeutic procedures, he was who championed "endo-scopic abdominal surgery" and pioneered many of the instruments still in use today (Semm 1987).

American surgeons have been somewhat reluctant to use laparoscopy until relatively recently. George Berci and Alfred Cuschieri 1986, were instrumental in demonstrating the therapeutic potential of laparoscopy in general surgical practice (Berci and Cuschiri 1986).

Asurgeon from Marshalltow, Iowa, charles Filipi, is said to have performed the first laparoscopic cholecystectomy in a dog in the early 1980, (Filipi 1990). However the primtive methods for retracting surrounding tissue as well as the use of direct vewing (non video) Laparoscopy led him to abandon further attempts at this operation.

A French physician p-Mouret, first performed laparoscopic cholecystectomy in human in 1987, (DuBois et al., 1990)