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ثبكة المعلومات الجامعية





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ثبكة المعلومات الجامعية







#### ROLE OF ULTRASOUND IN EVALUATION OF LAPAROSCOPIC CHOLECYSTECTOMY(L.C.)

Thesis

Submitted for partial fulfillment

of M. Sc. degree

In

Diagnostic Radiology

BY

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#### **ACKNOWLEDGEMENT**

My sincere gratitude to ALLAH for giving me the will, patience and perseverance to carry out and finish this work to the utmost of my ability.

I would like to express my profound gratitude to Professor Dr. Adel Wyohamed El-Wakil Professor and head of Diagnostic Radiology department, Faculty of Medicine, Menoufia University, for his kind supervision, guidance and encouragement.

I am also deeply grateful to Professor Dr. Amr Mohamed Gelmy Professor and head of Surgery department, Liver Institute, Menoufia University, for his advice, observations and assistance all over the work.

I am greatly indebted to Professor Dr. Sainab Abd El-Aziz Aly Assis. Professor of Diagnostic Radiology department, Faculty of Medicine, Menoufia University, for her kind help, valuable support and planning for this work.

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## **INTRODUCTION**

#### **INTRODUCTION**

1

Laparoscopic cholecystectomy (L.C) represents an alternative procedure to traditional surgery in treatment of gall bladder diseases with the advantages over open cholecystectomy(O.C) by less wound pain, better cosmoses and short convalescence.

Marino et al., (1994) showed that sophisticated techniques as ultrasound scalpels make L.C. particularly safe and can take over the position of elective treatment,

Corr et al., (1994) detected by the use of preoperative ultrasound increased technical difficulties in L.C. in case of diminished gall bladder function and wall thickening, on the other hand they showed no association between gall bladder volume or number of calculi and operative difficulties.

Also *Fried et al., (1994)* found that the preoperative predictors for conversion from L.C. to O.C. is thickened gall bladder wall found by ultrasound.

Wachsberg (1995) illustrated the importance of the use of sonography in the preoperative examination of the patients. Such

findings are important because they may depict contraindications to the laparoscopic technique or identify cases in which preoperative endoscopic retrograde cholangiography, intra operative cholangiography, modifications of the surgical procedure or extra care are warranted.

Chi-leung Liu et al., (1996) found risk factors, including patient factors, presentation, preoperative ultrasonography, and surgical experience, all contributed to the possibility of conversion. Knowledge of these factors may help in arranging the operating schedule, psychological preparation for the procedure and planning of the duration of convalescence.

# AIM OF THE WORK

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The aim of this study is to detect the efficiency of ultrasound in identifying the risk factors predictive of conversion of laparoscopic cholecystectomy to open surgery and to record the difficulties and complications of laparoscopic cholecystectomy.

### REVIEW OF LITERATURE

#### EMBRYOLOGY OF THE LIVER AND GALL BLADDER:

The liver and gall bladder (GB) are derived from the foregut. The liver first appears in third week embryo as a hollow endodermal bud from the distal foregut. This bud, the hepatic diverticulum, consists of rapidly proliferating cells that penetrate into the ventral mesogastrium. These cells eventually develop into the liver; the connection between the hepatic diverticulum and the foregut is preserved to form the bile duct. A ventral outgrowth of the bile duct gives the GB and the cystic duct. As the intestine rotates the entrance from the bile duct into the duodenum moves to a posterior position and the common bile duct comes to lie behind the duodenum and the pancreas.

Within the developing liver the bile ducts are distributed in a segmental fashion. Bile is secreted by the liver cells into bile canaliculi. The canaliculi drain into ductules and then into larger segmental bile ducts. The left hepatic duct drains segments II, III, and IV; segments V, VI, VII, and VII drain into the right hepatic duct. The caudate lobe (segment I) lies astride the inferior vena cava posteriorly and drain into both the right and the left hepatic ducts. (Morris and Malt, 1994).