Laparoscopic Cholecystectomy – An Evaluation Study in a Teaching Hospital

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Research Article

Abstract: Gallstone is one of the commonest disease processes treated by the surgeon. Laparoscopic cholecystectomy is the treatment of choice for gallstone disease. The present study was undertaken to evaluate 380 cases of laparoscopic cholecystectomy with respect to time taken in surgery, intra operative and postoperative complications, time of discharged from hospital and mortality.

Keywords: Gallbladder stone, Laparoscopic cholecystectomy.

Introduction

Laparoscopic cholecystectomy is here to stay and is today the procedure of choice for treatment of gallbladder stone. Patients accepted this new modality most readily to its advantages like less pain, small incision, early recovery and less hospitalization. Laparoscopic cholecystectomy is an endoscopic operative technique for removal the gallbladder. It is guided by an endoscopic, camera and video monitor and is performed through four cannulas (1). This is a safe procedure with low complication, mortality and morbidity rate (2). The gallbladder is dissected from liver under observation on monitor. The possible complications are bleeding, injury to common bile duct and technical problems, such as gallbladder perforation. In this study, we share our experience of 380 cases of laparoscopic cholecystectomy.

Material and Methods

In this study, 380 patients (male 110 and female 270) with gallstone were operated laparoscopically in our institution for last three year. All patients having symptomatic gallstone were included in this study and procedure was performed by four port technique in all the cases. Patients having acute cholecystitis CBD stone, cardiovascular disease, COPD, and pregnancy were excluded from this study. Experience was recorded in terms of technical difficulties encountered by surgical team, duration of surgery, intra-operative complications, post-operative complications and hospital stay of patient.

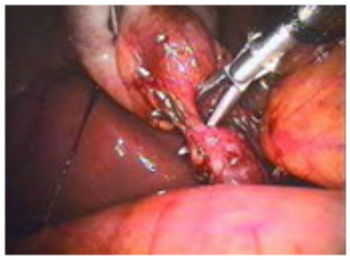

Figure 1: Dissection in laparoscopic cholecystectomy

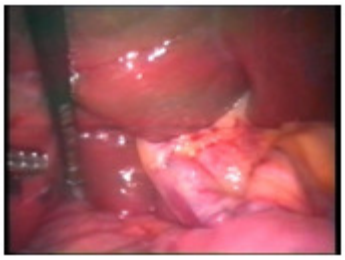

Figure 2: Intrahepatic gallbladder in laparoscopic cholecytomy

Results

Intra-operative complications, we encountered cystic artery bleeding in 8 cases (3%). Minor bleeding from cutaneous vessels occurred in 6 cases (1.5%). Minor liver injuries during trocar insertion occur in 4 cases (1%). In 8 cases (2.1%) there was gallstone spill in peritoneal cavity. This complication occurred due to perforation of gallbladder at the time of dissection of gallbladder. However those stones were picked up and removed. There was no hollow viscus injury or common bile duct injury. We had to convert 4 cases (1%) to open cholecystectomy due to dense adhesion , ill defined calot's triangle and intrahepatic gallbladder(Fig1. and Fig 2.). Average duration of procedure was 50 minutes. Average hospital stay was 2.5days. There was no mortality in the study.

Postoperative Complication

Post-operative 4 patients (1%) had minor bile leak from drain, which continued for about 7 days. Patient was managed conservatively and discharged in satisfactory

condition. 6 patients (1.5%) had post-operative fever which lasted for three days and responded to antibiotics. Post operative pain in all the patients was relieved by moderate dose of non steroidal anti-inflammatory drugs. Requirement of analgesics was experience only for first and second post-operative day. Average hospital stay was 2.5 days. There was no mortality in this study.

Discussion

Gallstone is one of the commonest disease processes treated by the surgeon. Laparoscopic cholecystectomy has become widely accepted as the procedure of choice for symptomatic gallstone disease. Although 2% to 15% of patients require conversion to open cholecystectomy for various reasons, but irrespective of this morbidity and mortality statistics do still favour laparoscopic cholecystectomy over open surgery (3). The procedure has a low rate of complication (2-4%) , bile duct injury (0.2-0.5%), and mortality (<0.1%)(4). In a study conducted by Khan MW and Aziz MM, some serious post operative complications occurred such as sub-hepatic abscess 0.02% (5). Tarcoveanu E *et al* has reported conversion rate of 5.1% in a study (6). In studies by Yi F, Jin WS *et al* and Hasbahceci M, Uludag M *et al*, they have reported complications like liver bed injury (8%), spilled gallstones (7.25), port site infection (2.75%) , vascular injury (4.5%), bile leak (2.5%), bowel injury (0.75%), CBD stricture (1%), umbilical port hernia (0.5%) and common bile duct injury(0.27%), post operative bleeding (0.45%) and mortality rate (0.13%)(7). In our experience complications rate was comparatively less than the complication rate in those studies. So our experience suggests that laparoscopic cholecystectomy can be safely performed with minimal complications and is the treatment of choice for symptomatic gallstone disease.

Conclusion

Gallstones are the most common biliary pathology and laparoscopic cholecystectomy is the procedure of choice for patients with symptomatic gallstone disease and now increasingly performed as a day care procedure. Conflict of interest: Authors do not have conflict of interest.

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