

A Retrospective Study on Comparison of Outcomes of Open Partial Cholecystectomy with Complete Cholecystectomy

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ABSTRACT

Objective: To compare the frequency, indications and outcomes of full cholecystectomy with open partial cholecystectomy during surgery.

Materials and Methods: A retrospective descriptive study was performed from February 2014 to February 2015 at the Nishter Hospital Multan Surgery Department for one year period. 39 patients with stones in Gall Bladder who underwent partial cholecystectomy were studied. The criteria for selection of the cases were preoperative, clinical findings, ultrasonography and computerized tomography. The final decision was based on operative findings during open cholecystectomy.

Results: Partial cholecystectomy was performed in 39 patients with gallstone disease. The age range was between 30 and 75 years (average age: 45 years). The ratio of women and men showed a female superiority. In our study, acute cholecystitis was found in 62% of patients, empyema bladder in 16.5%, mucocele in 9.5% and acute pancreatitis due to gallstones in 12% of the patients. Two patients underwent cholecystostomy.

Conclusion: Partial cholecystectomy is a safe and effective procedure in difficult cases, all complications are less and total cholecystectomy is almost equivalent.

Keywords: Laparoscopic cholecystectomy (LC), Tube cholecystostomy(TC), ,MRCP (magnetic resonant cholangiopancreatography.),CBD (Common bile duct), Gall bladder disease.

INTRODUCTION

The incidence of cholelithiasis increases with age. At age 60, about 25% of women and 12% of men in the United States. There are gallstones, but in some countries, p. In Sweden, Chile and ethnic groups (eg Pima Indians) the incidence of gallstones can approach 50%. The best method for accurately detecting the prevalence of gallstone disease is ultrasonography, a non-invasive and safe method with 90-95% sensitivity. Approximately 80% of patients with biliary stones are asymptomatic. Each year, about 2% of patients develop symptoms and this is one of the most commonly used methods performed by Hartmann and a surgeon who buried the need for a cholecystectomy in these patients is usually the result of cystic obstruction of the general surgeons. Diabetic and elderly patients are particularly susceptible to gangrene and emphysematous cholecystitis. Male patients with acute cholecystitis are older, have more morbidity, and are more likely to have gangrenous cholecystitis than women. Acute cholecystitis was associated with more operative difficulty and postoperative morbidity than chronic

cholecystitis. With the advent of the laparoscopic age, laparoscopic cholecystectomy (CL) was passed and most operations were performed with this method. However, since the use of LC a higher proportion (20-50%) of cholecystectomies have been documented. Upper abdominal adhesions are not possible in patients with open surgical operations. If urgent conversion is required, the patient has a heavier rejection of peritonitis, cholangitis, and open cholecystectomy. Open cholecystectomy is mainly performed in patients with inadequacy to complete the procedure due to contraindications to LC or LC and in patients who suffer from Mirizzi Syndrome and patients who require conversion in patients suffering from xanthogranulomatous cholecystitis. During OC or LC cholecystectomy, sometimes there is excessive inflammation, fibrosis and increased vascularization. There is a high risk of damaging the biliary system or damaging the hepatic vessels, preventing the dissection of the lime triangle. In these conditions, the safest procedure in our thinking will be partial cholecystectomy. Partial cholecystectomy is a frequently performed procedure and is well documented in the literature. The aim of our study is to investigate the frequency, indications and outcomes of partial open cholecystectomy in our hospital and whether it is an effective, safe and cost effective method.

METHODS AND MATERIALS

The retrospective study was carried out for one year period from February 2014 to February 2015 at the nishter Hospital Multan in the Surgery Department. Nishter Medical College Ethics Committee approved the study. Written informed consent was obtained from each patient. The patients were admitted to the emergency department and to the emergency department of the hospital. The following selection criteria were used in all cases of acute cholecystitis, including those with LC oc change cholecystectomy interval and emergency, those with gallstone pancreatitis and those with chronic cholecystitis. Exclusion criteria included gallstone gall bladder disease (CBD), bile duct carcinoma, and cholangiocarcinoma. The diagnosis was based on clinical evaluation supported by ultrasonography. At selected cases CT-Scan and MRCP were performed. CT sonographic findings were performed in two patients and CPRM in one patient in which the underlying pathology was inconclusive. Special attention was paid to all comorbidities before patients had cholecystectomy. Operative procedure: Partial cholecystectomy was performed with Kocher incision. Operative decision for partial cholecystectomy was made when it was not possible to isolate the cystic duct, cystic artery and CBD due to dense adhesions around the Calot triangle. Biliary sac opened; All the contents, including stones, debris and pus, were removed and then washed with normal saline. The distal biliary suture was removed from the Hartmann bag and the margins were closed with a continuous Vicryl 2/0 suture. The back of the biliary suture is attached to the liver and the mucosa is electrocoagulated with diathermy. A drainage tube was placed in the sub-hepatic cavity and removed when no fluid or bile was drained (3 to 6 days) and then discharged on the day the tube was removed. Operative details, postoperative complications and outcome were observed. Tubal cholecystostomy was performed when an additional dissection was difficult to perform around the biliary tree, or when the biliary tree was attached to the colon, omentum or duodenum. In this procedure, all the stones were removed from the bottom of the gall bladder and closed on a large diameter tube. The tube was removed after a satisfactory tube cholangiogram was obtained. All patients received coverage with broad-spectrum antibiotics. Parenteral ceftriaxone was administered 1 day after surgery for 5 days, with 500 g metronidazole twice a day as 1 g.

RESULTS: A total of 39 patients underwent partial cholecystectomy with 280 laparoscopic and open cholecystectomy operations. The majority of the patients treated were female: 40 (95%) and 2 (5%) patients were male. The age range was 35-80 (mean 47). Acute cholecystitis in 26 (62%) patients, bile duct empyema in 7 (16.5%) patients, bile duct mucocele in 4 (9.5%) patients and gallstone pancreatitis in 5 (12%) patients. Tube cholecystostomy was used in two patients and open cholecystectomy was performed after a 12-week follow-up. In our study, 29 (69%) had diabetes mellitus, 20 (47.5%) had hypertension, 12 (28.5%) had ischemic heart disease and 16 (30%) had DM and HTN. The patients are followed up every three months and they are transferred to the home by telephone or in writing every six months. Liver function tests and ultrasound examination were performed at each visit. None of the patients had postoperative complications due to partial cholecystectomy.

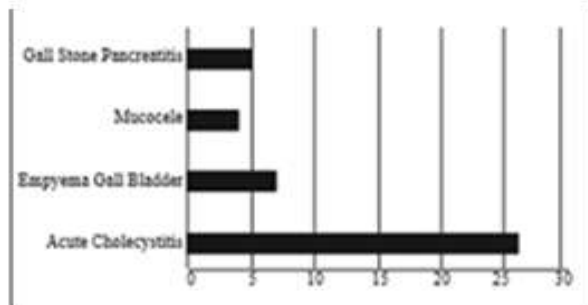
Table: 1

DEMOGAPHY OF PATIENTS	
Gender distribution	Total (%)
Males	2(5)
Females	40(95)
Age range	35-80yrs
Co-morbidities	Total(%)
Hypertension	20(47.5)
DM+HTN	16(30)
Diabetes	29(69)

Table: 2

	Acute cholecystitis	Mucocele	Gall stone Pancreatitis	Empyema Gall Bladder
Indication for partial cholecystectomy	26	4	5	7

Fig: 2



DISCUSSION:

In patient management, there are two thought schools of gallstones / acute cholecystitis. If a patient is presented within 72 hours after the onset of acute cholecystitis symptoms, cholecystectomy is performed. After 72 hours, the patient should be treated conservatively with I / V fluids, appropriate antibiotics and analgesics. After the acute attack is resolved, the patient is recommended to undergo surgery 6 to 12 weeks later. Conservative treatment should be discontinued when pain and sensitivity increase and after surgery. The patient's general condition was improved at a later time when the patients were developed, and the cholecystectomy was performed in the presence of percutaneous ultrasound cholecystostomy to alleviate symptoms that could be performed quickly and under severe morbid conditions.

In our study, acute cholecystitis and bile duct empyema were present in most patients. Acute cholecystitis, a cholecystectomy is usually used 6 to 12 weeks after resolution of acute appendicitis. Acute cholecystitis within the first 72 to 92 hours, inflammatory changes around the bile duct tend to be edematous tissue planes, which are documented and preserved to facilitate removal of bile ducts. After this time frame, the acute inflammatory reaction progresses and matures with obturation of fibrotic changes and tissue planes. Gallstone pancreatitis Calot triangle had intense adhesions; For this reason, partial cholecystectomy was used to prevent CBD damage. The most common benign biliary stricture during cholecystectomy is iatrogenic bile duct trauma. Despite the worldwide experience of LC, the overall incidence of biliary injury is about twice that of open cholecystectomy.

We did not have cystic duct or CBD lesion, gall bladder or mortality. In addition to bile leakage, other reported complications include stones, recurrent symptoms, wound infections, persistent biliary fistula and prolonged bile drainage, and an overall mortality rate of 9.4%, subhepatic abscess. For patients with bowel fistula / prolonged bile drainage stones, it was necessary to take additional intervention such as ERCP, stent / sphincterotomy to lift that main bile duct.

In the United States, chief surgeon graduates now receive an average of 90 LCs, while only 12 open cholecystectomies and the colostomy are making fewer discoveries. In the near future, these open bile surgeries will be performed by surgeons with limited experience in complex biliary operations (and other open operations), as experienced bile surgeons are left practically. This scenario has not yet occurred, but biliary injuries are twice as laparoscopically more likely than open cholecystectomy. The surgical tendency in the treatment of complex acute cholecystitis has been orbital hypertrophy and now has changed since cholecystectomy performed only in patients with OPC or LPC performance acute cholecystitis. Partial cholecystectomy in elective and emergency biliary surgery can be performed openly or laparoscopically and is a safe choice. It has been described in the literature since 1985 (and probably earlier).

It is an attempt to prevent iatrogenic damage of the common bile duct with OPC or LPC. In an early LC study of acute cholecystitis, they did not find a significant difference in conversion to open cholecystectomy, but they suggested that there was a greater blood loss, longer study duration, shorter hospital stay, and another study continued operation. It does not increase the risk of mortality and morbidity when compared with early (open or laparoscopic) operative delay and should be the preferred surgical approach in patients with acute lithium cholecystitis. There are four cases reported after PC (from four OPCs and two LPCs) that present biliary pancreatitis within 12 to 24 months after surgery. All four cases were operated on laparoscopically and the remaining portion of the gall bladder was removed and had no symptoms since then.

Recurrent acute cholecystitis and choledocholithiasis in a case reported after OPC. The operation first called the LC, but then it turned on. Again, due to severe inflammation and anatomical abnormalities, OPC was performed with surgical TA staples via infundibulum and left approximately 25% of the bile duct, including the cystic duct. Severe pain plus jaundice and continued. It was investigated and found that the CBD was dilated with stones and the gallstones were found in stump stones. The report was operated by the method opened by the author and there were many adhesions, and the bile esophagus remained intrahepatic and located in the lower part of the liver. By this means, it is possible to remove the residual bile duct after connecting the cystic duct and artery. The authors should make every effort to remove the remaining gallstones from the rest of the bile satchet, since this is not done in this patient, and this explains the lack of recovery of the OPC. ERCP and sphincterotomy were performed to remove stones from the residual bile duct before the operation for the calculations in the CBD.

Successful repair of bile duct injuries after cholecystectomy can best be achieved in specialist hepatocyte units. In this study, the incidence of biliary fistula after open cholecystectomy was 2.6% and the incidence of gall bladder leakage was 24%.

CONCLUSION:

Since it combines the benefits of cholecystectomy and cholecystectomy, it has been discovered that partial cholecystectomy is a safe and effective method for difficult cholecystectomy cases. Total cholecystectomy is an alternative and equivalent in these cases because of longer duration, less blood loss and a good long-term outcome in these cases.

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