

Laparoscopic Cholecystectomy Indications to Convert to Open Cholecystectomy? A Retrospective Study, Analysis of 856 Laparoscopic Cholecystectomy Operations

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ABSTRACT

Background: Laparoscopic cholecystectomy has now become gold standard for the removal of diseased gall bladder, Still it is inevitable to convert to open cholecystectomy in certain cases. Information regarding rate and causes of conversion to open operation could help surgeon in their treatment.

Aim: To find out rate of conversion to open cholecystectomy and dealing with difficult cases.

Study Design: A retrospective study.

Place and Duration of Study: Department of Surgery, Shalamar Hospital, Lahore from 1st January 2014 to 31st December 2017.

Methodology: This Study included all Laparoscopic cholecystectomy performed at the department of surgery due to gall bladder disease from 1st January 2014 to 31st December 2017. Patient's Demographics, Indications for operation, co morbidity, previous abdominal operations were collected. Cases were analyzed in relation to conversion rate to open cholecystectomy, factors affecting conversions and completion of laparoscopic cholecystectomy. Exclusion criteria were absolute contraindication to Laparoscopic cholecystectomy, severe cardiovascular disease, severe pulmonary disease and advance liver disease.

Results: Out of 856 patients undergone Laparoscopic cholecystectomy, 188 were identified as difficult cases. Laparoscopic cholecystectomy was successfully completed in 98.8% cases. Conversion rate was 1.16%. The most common causes for conversion were acute cholecystitis causing server inflammation and adhesions of calot's triangle and bleeding

Keywords: Laparoscopic cholecystectomy, Calot's triangle, Conversion to open cholecystectomy

INTRODUCTION

Laparoscopic cholecystectomy has almost replaced open cholecystectomy during last three decades and now has been accepted as gold standard operations for gall bladder disease. During these operations difficult gall bladder could make this operation very difficult for the surgeon and potentially places the patient at significant risk. Conversion to open cholecystectomy is still unavoidable in certain cases. We decided to review our experience of laparoscopic cholecystectomy, rate and common causes of conversion to open cholecystectomy, We present our experience of 856 cases from 1st Jan 2014 to 31st December 2017 with respect of conversion to open cholecystectomy

MATERIALS & METHODS

This is retrospective study from 1st January 2014 to 31st December 2017. Total 856 Patients were included in this study who had laparoscopic cholecystectomy for gall bladder disease. Exclusion criteria were absolute contraindications to laparoscopic cholecystectomy, severe cardio vascular disease, sever pulmonary disease & advanced liver disease. The rate of conversion to open cholecystectomy & underlying reason were analyzed.

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Data Collection and Procedure: Preoperative data including patient's demographic, history, Examination, lab investigations & ultrasound abdominal were performed; Patients with co morbidity (morbid obesity, diabetes mellitus, Hypertension hematological disorders), pervious abdominal operations were collected. Cases were divided into two groups from the data collected (routine cases & difficult cases).The conversion rate among both groups & underlying reasons were analyzed.

RESULTS

Retrospective study which spanned over four year was carried out. Mean age of patients was 45 +/- 12 (range 18-89yrs). Among 856 patients in study laparoscopic cholecystectomy was successfully completed in 846 patient (98.8%) Difficult cases were 188(21.96%) Among routine cases conversion to open cholecystectomy rate was 6(0.89%) patients. Among difficult cases (188 patients) conversion rate was 4(2.1%) cases. Overall 1.16% cases (10 patients) were converted to open cholecystectomy.

Table Conversion rate in our study (n=856)

Cases	n
Difficult cases	188(21.9%)
Overall conversion of LC to open chole	10(1.16%)
Conversion among difficult cases	4(2.1%)
Conversion among other cases	6(0.89%)
LC successfully completed	846(98.8%)

DISCUSSION

Now laparoscopic cholecystectomy is a routine acceptable operation for removal of gall bladder. The conversion from Laparoscopic cholecystectomy to open cholecystectomy results in significant consequences for the patients. The demography of patient's, spectrum of disease and associated pathology level of experience of surgeon all play an important role in decision for conversion. An inverse trend in conversion rate is seen with increasing experience in laparoscopic cholecystectomy. In our study overall conversion rate was 1.16 % in which inability to correctly identify calot's triangle accounted for more than half of cases.

CONCLUSION

In our study laparoscopic cholecystectomy was successfully completed in 98.8% cases, however overall conversion rate was 1.16%, among difficult cases conversion rate was 2.1 % & among routine cases was 0.89%. Although unclear anatomy at calot's tri-angle and acute cholecystitis remain the major cause for conversion to open cholecystectomy.

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