Case Report

Pakistan Journal of Medical and Biological Sciences
https://pjmbs.gcuf.edu.pk/index.php/pjmbs

CONVERSION RATE OF LAPAROSCOPIC CHOLECYSTECTOMIES AT TERTIARY CARE HOSPITAL FAISALABAD

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ABSTRACT: Laparoscopic cholecystectomy is a commonly performed procedure nowadays due to gallstone disease. Laparoscopic cholecystectomy is contraindicated in many conditions and there are a significant number of patients in whom it cannot be performed successfully and conversion to open surgery will be necessary due to technical difficulties or intraoperative complications. Factors responsible for conversion may be related to surgeons, patients, and possibly gadgets. Our study aims to find the indications and the rate of conversion to open surgery in 53 patients among 1453 patients who underwent laparoscopic cholecystectomy in the general surgery department over a period 05 years from 01 January 2019 to 31 December 2023 and to compare them with the data in the literature.

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KEYWORDS: Cholecystectomy, Conversion rate, Laparoscopic, Open cholecystectomy

INTRODUCTION

Cholecystectomy is a commonly performed procedure for symptomatic gallstone diseases. Laparoscopic cholecystectomy is the gold standard in gallbladder surgery and conversion to open surgery may be necessary due to technical difficulties or intraoperative complications (1). Conversion to laparotomy should not be considered as a technical failure but rather accepted as a deliberate decision to change the operative technique often protecting the patient from complications (2). Our study aims to identify the indications and the rate of conversion to open surgery in 53 patients among 1453 patients who underwent laparoscopic cholecystectomy in the general surgery department of Allied Hospital Faisalabad.

METHODOLOGY

Our work is a retrospective, descriptive study of 1453 patients who underwent laparoscopic cholecystectomy of which 53 patients had a conversion to laparotomy, over 5 years from January 1, 2019, to December 31, 2023, within the general surgery department of Allied Hospital Faisalabad. The objective was to analyze our experience in the conversion of laparoscopic cholecystectomies to conventional surgery and to compare the results with those of the literature. The inclusion criteria were patients of 20-55 years of age, with a diagnosis of symptomatic gallstone disease. The exclusion criteria were patients with suspected gallbladder cancer and those unfit for Laparoscopic surgery.

RESULT

The average age of the patients was 38 years. There was a clear female predominance of 1002 (69%) in the study series. Pain right hypochondrium was present in all the patients representing the most frequent reason for consultation. Murphy's sign was positive in 43 patients. Abdominal ultrasound was performed in all our patients showing stones in the gallbladder with normal wall thickness in 1235 (85%) of our patients, sludge in 44(3%) of cases, gallstones with cholecystitis in 145(10%), gallbladder polyp15(1%), acalculous cholecystitis 14(1%) of cases.
The approach to conversion was a Kocher laparotomy in all patients with subhepatic drain placement in all cases.

Postoperative follow-up was simple in all patients with an average hospital stay of 2 days in 1017(70%) of cases, 3 days in 305(21%) of cases,4 days in 102(7 %) & >4 days in 29(2 %) of cases.

DISCUSSION

Laparoscopic cholecystectomy is a surgical procedure for gallbladder disease. However, in some cases, conversion to open cholecystectomy is inevitable. Conversion rates varies among different centers. Laparoscopic cholecystectomy is associated with lower morbidity, lower hospitalization rates, and shorter recovery time, but there is a risk of conversion to open surgery and a higher risk of CBD damage

Patient-specific factors such as being male, extremes of age, and previous abdominal surgery have been shown to be determinants of procedure failure. Male gender, one of the risk factors, is due to greater association with serious diseases.

Despite increasing experience in laparoscopic surgery, approximately 2% to 15% of patients turn to laparotomy for various reasons (2,3). The conversion rate in our study is 3.7% of cases. This figure compares favorably with the rates reported in other studies. Converted cases are associated with many infections and other complications after surgery. The switch from laparoscopy to open surgery resulted in longer hospital stays after surgery (4). Important conditions that may affect the planning of laparoscopic conversion include acute cholecystitis where surgery is difficult, peritoneal adhesion, intraoperative bleeding, tumor suspicion, and bile duct injury (5).

Limited experience of a surgeon performing laparoscopic cholecystectomy is also a conversion factor (6). In a few studies the risk of conversion increases with age by 1.05 times/ year and in males is 2.44 times higher than in females (3). Despite all these predictive factors of conversion, the decision to abandon laparoscopic surgery is individual and taken by the surgeon during the operation. The main indications for conversion in our series were inflammatory adhesions preventing precise delimitation of the anatomy of the cystic duct (7,8).

CONCLUSION

Laparoscopic cholecystectomy may not be completed in certain patients and conversion to open surgery must be considered timely to prevent complications. The conversion rate in our study is comparable with the rates reported in the literature.

Ethical Approval: Ethical approval has been exempted.

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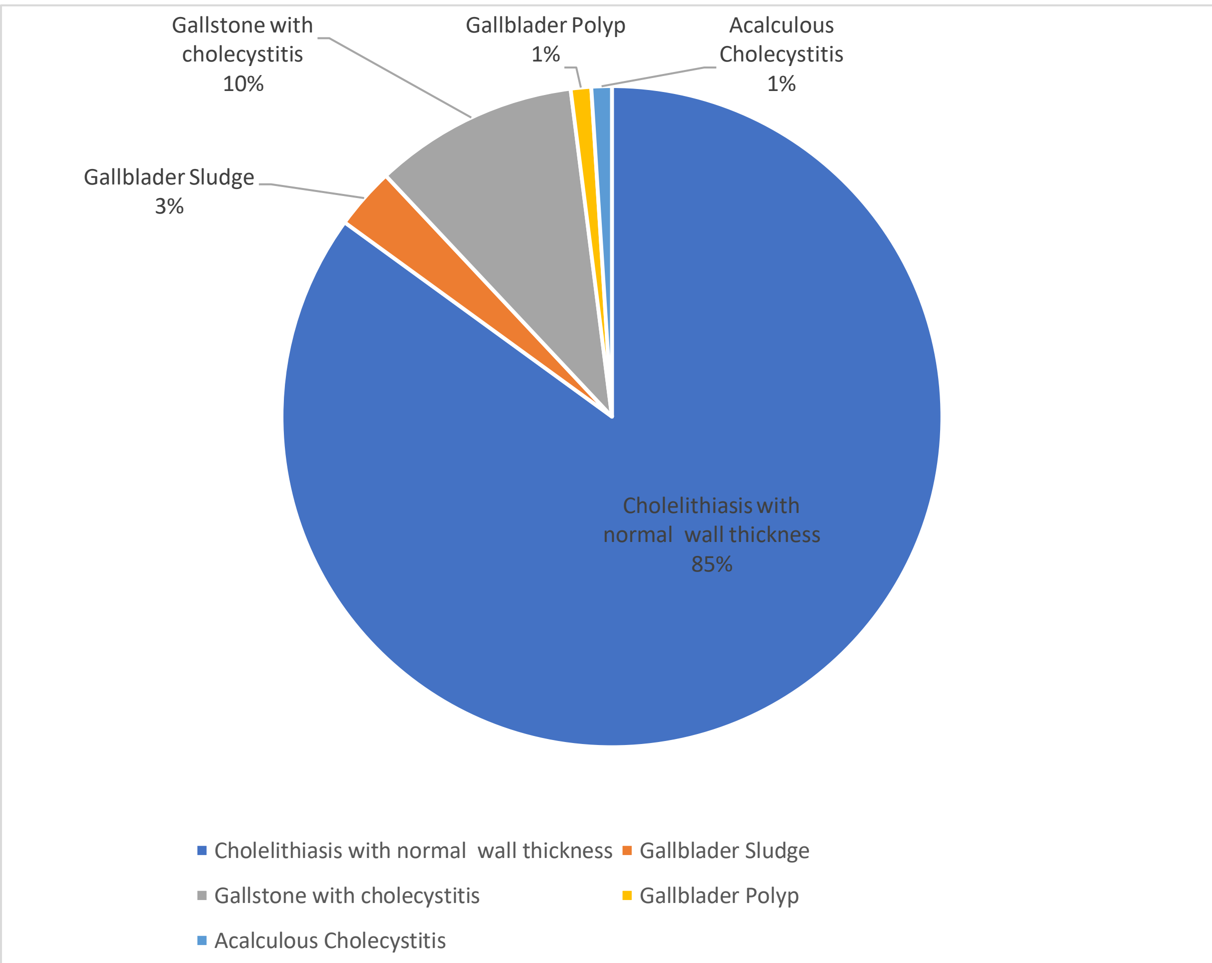

Figure 1:- Preoperative Ultrasound Finding

Among the 1453 patients who had undergone laparoscopic cholecystectomy, 1400 (96.4%)were completed and 53(3.6%) cases were converted to laparotomy. The laparoscopic approach was practiced in all our patients, with per operative exploration in the presence of adhesions making dissection difficult in the Calot’s triangle 1308 (90%), bleeding making dissection difficult 44 (3%), Mirizzi syndrome 29 (2%), injury to Common Bile Duct 58 (4%), Suspected lesion 14 (1%).

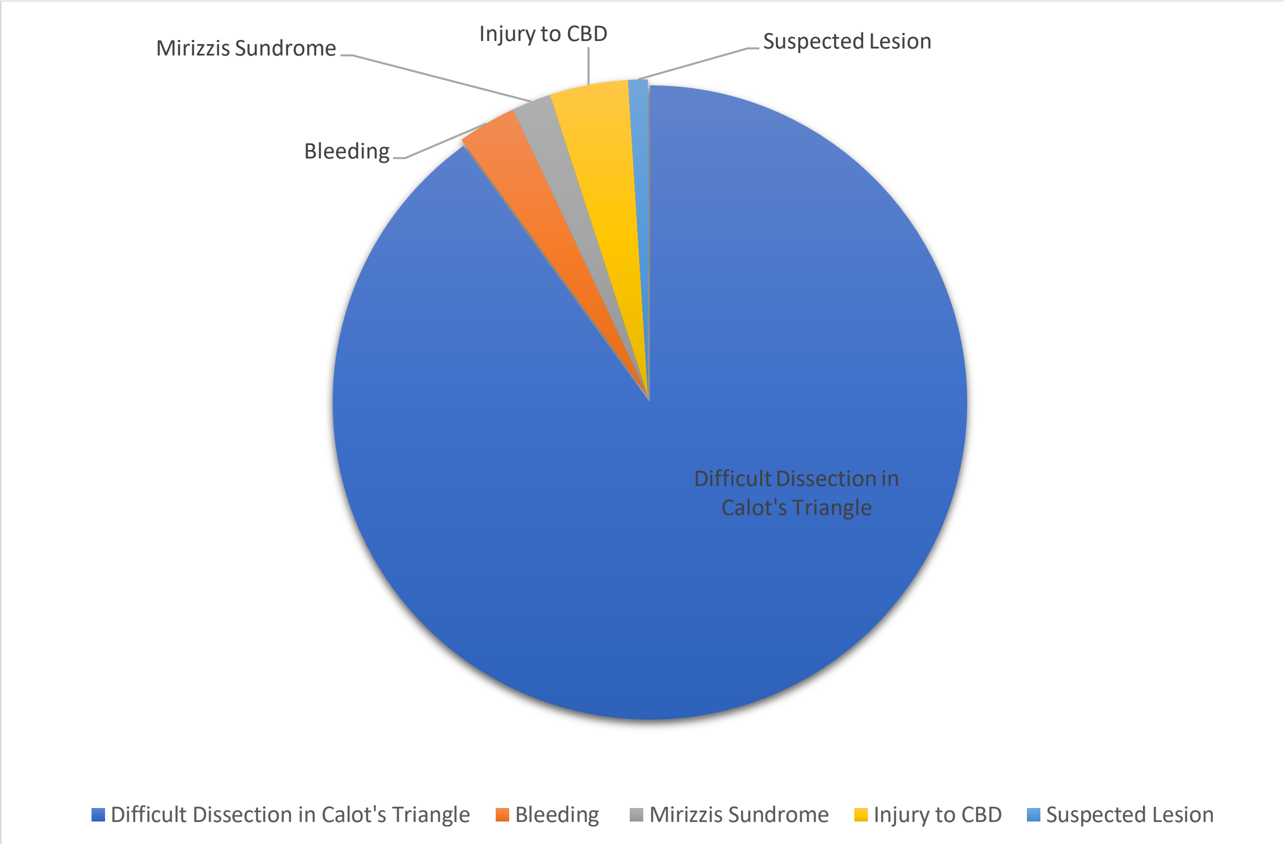

Figure :-2 Reason for Conversion to open cholecystectomy

The time of conversion was before the dissection of the Calot's triangle in 1264(87 %) of the converted cases and after the dissection of the Calot's triangle in 189(13%).

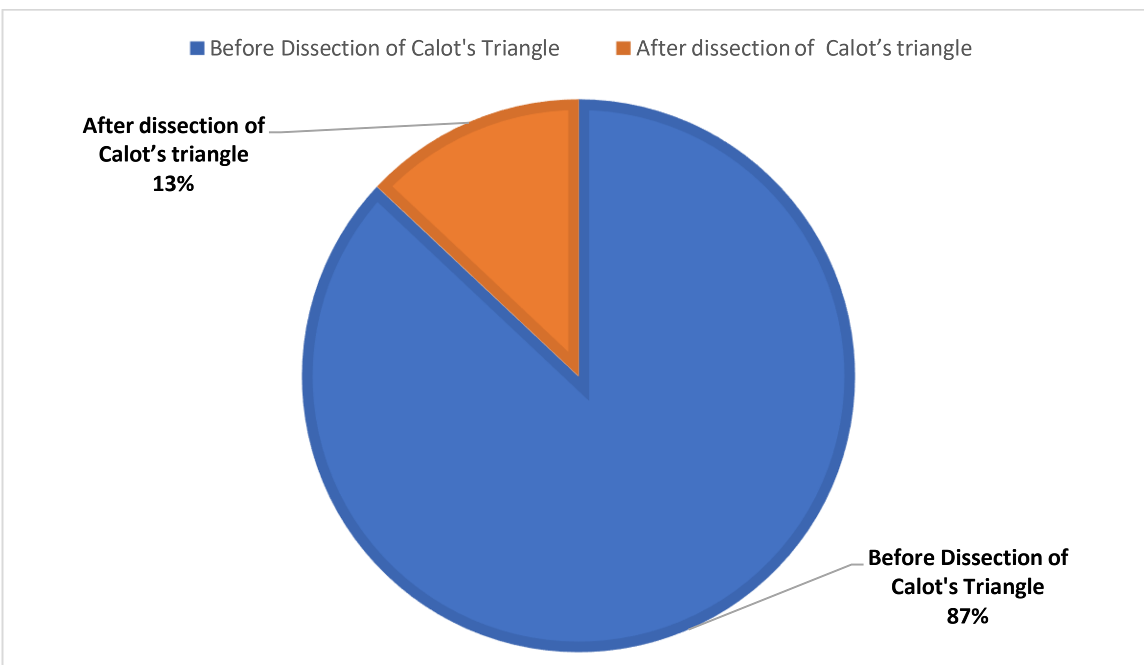

Figure:-3 Time of Conversion