

A Study of Incidence and Causes of Conversion of Laparoscopic Cholecystectomy to Open Cholecystectomy in Nalanda Medical College and Hospital, Patna

Pankaj Kumar¹, Bablu Das²

¹Senior Resident, Department of General Surgery Nalanda Medical College & Hospital, Patna

²Junior Resident, Department of General Surgery, Nalanda Medical College and Hospital, Patna

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Corresponding author: Dr Bablu Das

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Abstract:

Cholelithiasis is a global phenomenon prevailing more or less all over the world. Among the biliary tract disorders, chronic cholecystitis associated mostly with cholelithiasis is the frequently encountered entity. The treatment for chronic cholecystitis due to gall stone diseases is cholecystectomy. Laparoscopic cholecystectomy has become the standard treatment for symptomatic gall bladder disease but still there is a substantial proportion of patients in whom laparoscopic cholecystectomy cannot be successfully performed and for whom conversion to open surgery is required.

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Introduction

Cholelithiasis is a global phenomenon prevailing more or less all over the world. Among the biliary tract disorders, chronic cholecystitis associated mostly with cholelithiasis is the frequently encountered entity. The treatment for chronic cholecystitis due to gall stone diseases is cholecystectomy. Laparoscopic cholecystectomy has become the standard treatment for symptomatic gall bladder disease but still there is a substantial proportion of patients in whom laparoscopic cholecystectomy cannot be successfully performed and for whom conversion to open surgery is required.

Materials and Methods

The study has been carried out in a series of 100 cases of chronic calculus cholecystitis who underwent operative interventions in the department of surgery, Nalanda Medical College

and Hospital during the period of 1st October, 2021 to 28th February, 2023.

Inclusion criteria: Age more than 10 years with symptoms of chronic calculus cholecystitis has been included in this study.

Exclusion criteria: Patients with acute cholecystitis, malignancies of Hepatobiliary system, GB polyp, choledocolithiasis or dilated CBD, jaundice, history of previous abdominal or pelvic surgeries has been excluded from the study.

Results

Causes of conversion to open cholecystectomy were assessed & analysed. Results of the study were analysed as follows.

Total incidence of conversion

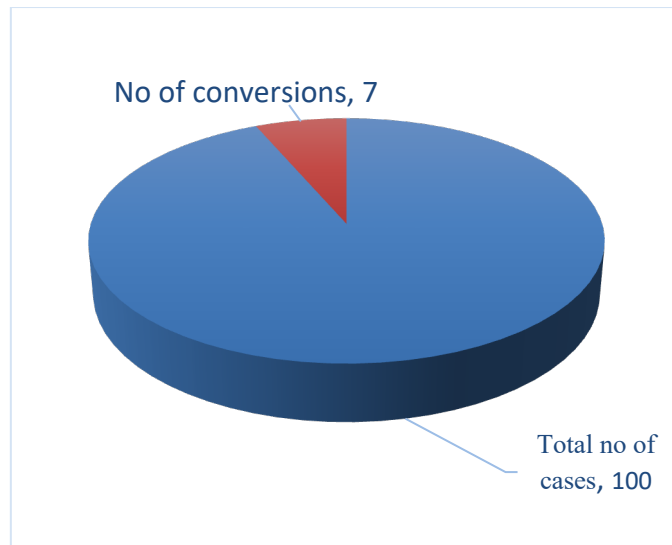


Figure 1: Total incidence of conversion

Table 1:

Total no of cases	No of conversion	Percentage
100	7	7

Causes of conversions: In the study of 100 cases, 7 cases were converted to open cholecystectomy. Causes of perioperative conversions were presented below:

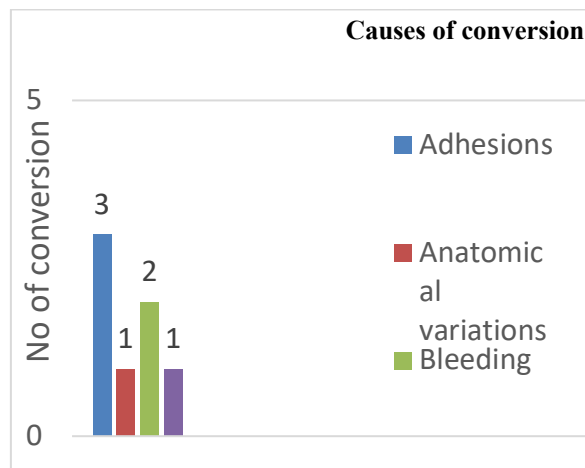


Figure 2: Causes of conversions

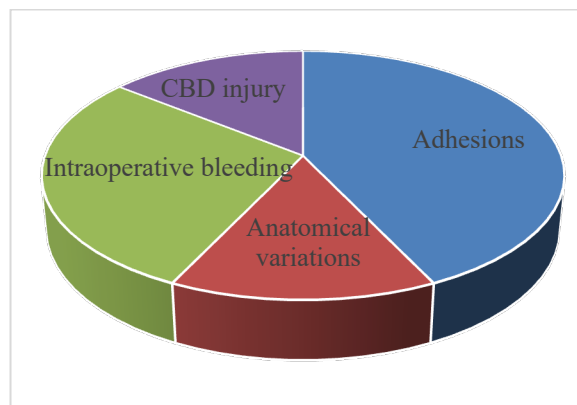


Figure 3:

Discussion

In the study the incidence of conversion of laparoscopic cholecystectomy to open cholecystectomy is 7%. The rate of conversion in various studies are Larson et al (1993) 4.5%, Southern Surgeons (1991) 4.7%, Wolfe et al (1991)3%. Alponat A (1997) 7.4% respectively.

In the study the causes of conversions are due to:

1. Dense adhesion around the gallbladder obscuring the anatomy of Calot's triangle- 3%.
2. Anatomical variations of cystic duct-1%.
3. Intraoperative bleeding from Calot's triangle 2%.
4. Common bile duct injury-1%.

Summary & Conclusions

From the study it is evident that the incidence of chronic calculus cholecystitis is quite prevalent. Operative findings were more or less similar to those as has been established by various research scholars.

However, from the relevant observations and discussions of the study, the following conclusions has been drawn.

1. Dense adhesions around the gallbladder obscuring the anatomy of Calot's triangle is the main cause of conversion followed by intraoperative bleeding from Calot's triangle.
2. Conversion to open cholecystectomy should not be viewed as a complication or failure but rather as a reflexion of sound surgical judgment.

3. Main aim should be to send the patient home in a good healthy status. With newer advancement in biomedical engineering making sophisticated laparoscopic instruments and more training will make more promising results & will decrease the chances of conversions.

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