ORIGINAL RESEARCH PAPER
Volume - 13 | Issue - 08 | August - 2024 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

CONVERSION OF LAPAROSCOPIC CHOLECYSTECTOMY TO OPEN CHOLECYSTECTOMY

General Surgery

Dr Monashree Vidyasagar D Junior Resident, Dept of General Surgery, AIMS&RC

Dr Anoosha SP Junior Resident, Dept of General Surgery, AIMS&RC

Dr Kilaru Anila Choudary* Junior Resident, Dept of General Surgery, AIMS&RC*Corresponding Author

Dr Anjanappa TH Professor of General Surgery, AIMS&RC

DrVenkatakrishna BR Professor of General Surgery, AIMS&RC

KEYWORDS

Background:

- Gallstone disease are a common gastrointestinal illness. The prevalence is around 11 to 36%.
- The Gold standard treatment for patients with symptomatic cholelithiasis is lap cholecystectomy.
- The advantages of laparoscopic cholecystectomy are avoidance of large incision, shortened hospital stay and earlier recovery.
- The conversion rate for elective laparoscopic cholecystectomy is around 5%.
- The patient's condition, the surgeon's level of experience and technical factors can play a major role in the decision for conversion.

AIMS AND OBJECTIVES:

- To identify the pre-operative risk factors predicting conversion of lap to open surgery
- To study the intraoperative factors that lead to conversion of Laparoscopic cholecystectomy to open cholecystectomy.

MATERIALS AND METHODS:

- STUDY DESIGN: Retrospective study
- STUDY PERIOD: May 2022 to May 2023(1year)
- SAMPLE SIZE: 156 (11)
- STUDY CENTRE: General Surgery Department in Akash Medical Hospital
- IEC Clearance obtained

INCLUSION CRITERIA	EXCLUSION CRITERIA
• Cases above 18 years of age diagnosed as cholelithiasis /cholecystitis treated surgically by laparoscopic cholecystectomy	• Patients below 18 years of age. • Patients who were diagnosed as having choledocholithiasis pre-operatively with or without biliary obstruction. • Patients who underwent a planned open cholecystectomy.

OBSERVATIONS

- Incidence of conversion was almost similar in males (5/72) and females (6/84) with 6.9% and 7% respectively which was similar to the study by kannan et al.
- Most common cause of conversion in our study was due to dense adhesions with 45% cases which was similar to studies by koo et al, cox MR et al
- Two cases were converted due to accidental clipping of CBD resulting in bile duct injury.

STATISTICS/OPERATIVE DETAILS

- Descriptive Statistical Analysis has been carried out in the present study.
- 11 cases that were converted to open cholecystectomy were due to dense adhesions between omentum and visceral organs to the gallbladder fossa in 5 patients.
- Followed by previous history of laparotomy with post-operative adhesions leading to difficulty in trocar placement and access to the peritoneal cavity.
- Also, the vascular complications like bleeding from the cystic artery, common bile duct injury, suspected injury to intestine and pneumoperitoneum complications.

TABLES

Sl No.	Reason for conversion to open cholecystectomy	No of cases	Percentage
1	Dense adhesions and difficult anatomy	5	45.45
2	Post-operative adhesions	1	9.09
3	Bleeding from the cystic artery	1	9.09
4	Common bile duct injury	2	18.18
5	Suspected injury to intestine	1	9.09
6	Pneumo-peritoneum related complication	1	9.09
	TOTAL	11	

Table 2: Distribution of Age and Gender of patients in the converted study group

Age group	Male	Female	Total
18-20	-	-	-
21-30	1	1	2
31-40	1	0	1
41-50	1	1	2
51-60	1	1	2
>60 years	1	3	4
Total	5	6	11

Sl NO	AGE/SEX	H/O ACUTE CHOLECYSTITIS	H/O COMORBIDITIES LIKE DM	MODE OF ADMISSION	REASONS FOR CONVERSION
1	26/M	-	-	NE	INJURY TO CYSTIC ARTERY
2	29/F	+	-	NE	SUSPECTED INJURY TO BOWEL
3	39/M	-	-	E	INJURY TO CBD
4	44/M	+	+	E	DENSE ADHESIONS

5	50/F	+	-	E	POST OP ADHESIONS
6	54/M	+	+	E	DENSE ADHESIONS

SI NO	AGE/ SEX	H/O ACUTE CHOLECYSTITIS	H/O COMORBIDITIES LIKE DM	MODE OF ADMISSION	REASONS FOR CONVERSION
7	59/F	+	-	NE	INJURY TO CBD
8	62/M	-	-	E	INSTRUMENT FAILURE
9	69/F	+	+	E	DENSE ADHESIONS
10	70/F	+	-	E	DENSE ADHESIONS
11	76/F	+	+	E	DENSE ADHESIONS
TOTAL		8/11	4/11		

RESULTS

- 156 patients were posted for laparoscopic cholecystectomy for cholelithiasis without choledocholithiasis.
- 11 patients out of 156 cases had to be converted to open cholecystectomy for various reasons.

DISCUSSION

- Gallstones and gall bladder disease are the major indications for cholecystectomy.
- After the advent of laparoscopic cholecystectomy, about 90% of the cases are treated by this technique rather than the open surgery because of its advantages.
- However, some cases need open technique because of unavoidable circumstances.

Our study includes total 156 Laparoscopic Cholecystectomies among which 11 cases were converted to open due to the following complications.

CONVERSION RATES IN DIFFERENT STUDIES

OUR STUDY	Tayeb et al 2005	Ishiazaki et al 2006	Saeed Hadi et al 2009
7%	7.5%	7.5%	8.3%

CONCLUSIONS

It is important for the surgeon to evaluate all the risk factors and their impact while formulating a treatment plan rather than considering only laparoscopy as the treatment modality, thereby reducing the conversion rates further.