

## **A CLINICAL STUDY ON REASONS FOR CONVERSION OF LAPAROSCOPIC TO OPEN CHOLECYSTECTOMIES IN GGH, KADAPA**

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### **INTRODUCTION**

Cholelithiasis is the formation of gallstones which are concretions that are formed in the biliary tract, usually in the gallbladder. Treatment of gallstones depends on the stage of disease of patient<sup>1</sup>. The signs and symptoms include sporadic and unpredictable episodes, pain that is localized to the epigastrium or right hypochondrium, sometimes radiating to the right scapular tip, nausea, and vomiting.<sup>[2]</sup> The presence of persistent tachycardia, fever, hypotension, or jaundice necessitates a search for complications, which may include the following: Cholecystitis, Cholangitis, Pancreatitis. By using the following diagnostic methods, the condition can be identified<sup>3</sup>. Abdominal radiography (upright and supine), Ultrasonography, Endoscopic ultrasonography (EUS), Laparoscopic ultrasonography, Computed tomography (CT), Magnetic resonance imaging (MRI), Scintigraphy, Endoscopic retrograde cholangiopancreatography (ERCP), Percutaneous transhepatic cholangiography (PTC). Medical treatments, used individually or in combination, include the following: Oral bile salt therapy (ursodeoxycholic acid), extracorporeal shockwave lithotripsy.<sup>[2]</sup>

Patients with the following risk factors for complications of gallstones may be offered elective cholecystectomy, even if they have asymptomatic gallstones like Cirrhosis, Portal hypertension, Children, Transplant candidates, Diabetes with minor symptoms. Surgical interventions to be considered include the following: Cholecystectomy – Laparoscopic, Cholecystostomy – Open

**Benefits of Laproscopy over Open Cholecystectomy surgery** With laparoscopic cholecystectomy, patient may return to work sooner, have less pain after surgery, and have a shorter hospital stay and a shorter recovery time. Surgery to remove the gallbladder with a laparoscope does not require that the muscles of your abdomen be cut, as they are in open surgery. The incision is much smaller, which makes recovery go quicker. With laparoscopic cholecystectomy, the patient probably will only have to stay in the hospital for a few hours or overnight. With open cholecystectomy, the patient would have to stay in the hospital for about five days. Because the incisions are smaller with laparoscopic cholecystectomy, there isn't as much pain after this operation as after open cholecystectomy.<sup>[3]</sup>

**Reasons for conversion of Laparoscopic to open Cholecystectomy** The reasons include difficult dissection due to dense adhesions between GB and bowel, disturbed anatomy at Calot's triangle; operative findings (associated pathology) include choledocholithiasis, biliodigestive fistula, surgery complications include severe inflammation, obscure anatomy and retraction difficulty, bleeding from GB bed bleeding from the cystic artery injury, duodenal perforation, colonic injury and wide cystic duct.[3]

## MATERIALS AND METHODS

The study subjects were patients, admitted with diagnosis of cholelithiasis, who subsequently underwent cholecystectomy at Department of General Surgery, GGH, Kadapa, AP in study period of 5 years between Jan 2019 and Dec 2023. All the patients were interviewed for detailed clinical history and examined. They were then subjected to routine blood, urine and other investigations as per protocol and an abdominal ultrasound were performed in all cases.

**Inclusion criteria:** 1. Patients presenting with at least one episode of right upper quadrant pain or epigastric pain (typical biliary colic) with ultrasonographically proven cholelithiasis. 2. Patients considered otherwise fit for elective cholecystectomy under general anaesthesia.

**Exclusion criteria:** 1. History or laboratory tests suggesting presence of common bile duct stones. 2. History of prior abdominal surgery, Patients having a calculus cholecystitis.

## METHODOLOGY

This is a prospective descriptive analytical single centre research study. In this study all the cases of gall bladder diseases admitted in surgery department undergoing cholecystectomy were studied, diagnosed and treated with surgical management (Laparoscopic or Open) during the period of 5 years and 196 cases were studied. A thorough record of patients' data was performed, including the history and clinical examination, laboratory investigations, ultrasound abdomen, x-ray chest and other imaging study, operative details, histopathology report, postoperative course. The variables noted and analyzed included: the demographic data, presenting complaint, previous history of jaundice or abdominal surgery, associated medical disease, abdominal tenderness, WBC count, LFTs, abdominal ultrasound, operative details, complications (peroperative or postoperative), histopathology report, postoperative course and follow-ups.

## RESULTS AND DISCUSSION

**TABLE NO 1: GENDER WISE DISTRIBUTION**

GENDER	2019	2020	2021	2022	2023
MALE	12	18	22	16	17
FEMALE	27	17	20	20	27

**TABLE NO 2: AGE WISE DISTRIBUTION**

AGE GROUP	2019	2020	2021	2022	2023
11-20	1	3	2	3	4
21-30	6	2	4	1	2
31-40	15	19	23	13	17
41-50	13	7	6	16	13
51-60	3	2	5	1	5
61-70	1	2	2	2	3
TOTAL	39	35	42	36	44

**TABLE NO 3: DISTRIBUTION BASED ON NUMBER AND TYPE OF SURGERIES**

TYPES OF SURGERY	2019	2020	2021	2022	2023
LAP CHOLECYSTECTOMY	26	24	30	22	28
OPEN CHOLECYSTECTOMY	8	8	8	9	10
CONVERSION OF LAPAROSCOPIC TO OPEN CHOLECYSTECTOMY	5	3	4	5	6

**TABLE NO 4: DISTRIBUTION BASED ON NUMBER AND TYPE OF SURGERIES**

TYPES OF SURGERY	NUMBER OF SURGERIES DONE	PERCENTAGE
LAP CHOLECYSTECTOMY	130	66.32
OPEN CHOLECYSTECTOMY	43	21.93
CONVERSION OF LAPAROSCOPIC TO OPEN CHOLECYSTECTOMY	23	11.73

**TABLE NO 5: REASONS FOR CONVERSION OF LAPAROSCOPIC TO OPEN CHOLECYSTECTOMY**

REASONS FOR CONVERSION		NUMBER OF CASES	PERCENTAGE
COMPLICATIONS	BLEEDING FROM GB BED	5	21.73
	BLEEDING FROM CYSTIC ARTERY	3	13.04
	DUODENAL PERFORATION	1	4.34
	COLONIC INJURY	0	0
DIFFICULT DISSECTION	ABNORMAL CALOTS	8	33.78
	DENSE ADHESIONS	3	13.04
OPERATIVE FINDINGS	CBD STONES	2	8.6
	FISTULA	1	4.3

**CONCLUSION**

Laparoscopic Cholecystectomy has emerged as the gold standard in the treatment of gall stones. Though it is easier to teach and learn the laparoscopic surgery with the help of magnified visual display, specialized training is a must in case of the laparoscopic technique. The females are more prone to GB stones than males due to a large extent owing to ovarian hormones. LC has less pain after surgery, and has a shorter hospital stay and a shorter recovery time so it is preferred over OC. The overall frequency of conversion of LC to OC was 11.73%; the risk of conversion is more during the learning curve and in male patients, but increasing age is not associated with increased risk of conversion. Although unclear anatomy at Calot's triangle and bleeding from GB bed remain the most common reasons for conversion, the use of refurbished equipments was also a cause of concern. From our study the occurrence of cholelithiasis (gall stones) were observed in varies of age groups and observed that the high incidence in the age group of 40-50 years.

**REFERENCES**

1. Tapan S etal. Prospective single centred study of 100 patients undergoing Laproscopic Cholecystectomy – changing trends. *NHL Journal of Medical Sciences* / Jan, 2013; 2(2).
2. Lesie B, *Surgery of liver biliary tract and pancreas*. Elsevier Saunders, 4th EDT, 477– 654.
3. Muhammad S etal. Reasons for conversion of laproscopic to open cholecystectomy in a teritiary care institution. *J Pak Med Assoc* / July, 2009; 59(7).
4. Ibrahim S, Hean TK, Ho LS, Ravintharan T, Chye TN, Chee CH. Risk factors for conversion to open surgery in patients undergoing laparoscopic cholecystectomy. *World J Surg*, 2006; 30: 1698-704.
5. Mukesh kumar etal. Laproscopic versus Mini- Laparotomy Cholecystectomy – A comaparative study. *Sch. J. App. Med. Sci.*, November, 205;3(8C): 2954-2959.