



LAPROSCOPIC CHOLECYSTECTOMY IN ACUTE CHOLECYSTITIS

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ABSTRACT

INTRODUCTION:- Acute cholecystitis is an inflammation of G.B. mostly because of blockage of cystic duct due to Gallstones.

L.C. has been gold standard T/t in modern era of minimal invasive surgery,. But debate still exist about its timings, experience of operating surgeon, conversion rate etc., but analyzing the outcome such difficulties can be accepted while advantages been same as an elective and delayed cholecystectomy.

A Prospective study was conducted on the subject in T.M.M.C. & R.C. in the department of Surgery from June 2017 to may 2018.

OBJECT:- The purpose of study is to present & share our experience of operating 86 cases of Acute cholecystitis, about its safety, effectiveness whether should be attempted or not & difficulties faced & rate of conversion.

MATERIAL & METHOD:- In this prospective study, L.C. on 86 pt. of acute cholecystitis was done, 143 cases out of 1548 cases of cholecystitis were diagnosed as cases of acute cholecystitis & only 86 were found to be fit to be operated in acute phase, rest were excluded because of comorbidities.

RESULT:- We analyzed the results & our observation during surgery was the presence of Phlegmon, soft and flimsy adhesions around stomach & duodenum, very fragile nature of soft tissues, difficult to hold thickened G.B. & in 9 cases its perforation due to gangrenous wall. Our conversion rate was due to various above mentioned reasons, operation time was prolonged (55-126min.). Post-operative hospital stay was almost the same, oozing from the liver bed & soft tissue was a common & distressing problem, it was controlled by simple pressure technique, but drain tube had to be kept longer in majority of pt.

DISCUSSION:- Open/Lap cholecystectomy have been debatable since long time but main debate nowadays is about the timing of surgery. Many series suggest that 72 hrs. Is the golden period since the onset of symptoms & signs. Should be safe in this period but still researches & experiences of many more is needed, but one fact still remains that the conversion rate is higher in acute cases as compare to delayed cases.

CONCLUSION:-Lap. Cholecystectomy in acute cases in our experience should be attempted keeping in mind about the time elapsed after symptoms, experience of surgeon, possibility to convert, longer duration of surgery & other Co- morbid conditions.

KEYWORDS :**INTRODUCTION**

Acute cholecystitis is inflammation of GB and more than 90% of it is because of blockage of cystic duct due to gall stones, risk factors for latter being pregnancy, oral contraceptive pills, family history, obesity, DM, liver disease. Gold standard t/t for acute cholecystitis is lap. Cholecystectomy, especially within first 24 hours, but debate still exists regarding its optimal timings. But advantages being minimal post-operative pain, post-op hospital stay is very less, better cosmetic results and an early recovery and mobilization. The general view in the t/t of acute cholecystitis is, firstly to administered conservative t/t to manage possible complications associated with inflammation and then after 6-8 weeks, to perform lap cholecystectomy. Although more than 70% patients respond to conservative medical t/t within 48, hours. Lap cholecystectomy is definitely has become a t/t of choice now-a-days in expert hands and more satisfying viewing approach of it is this reducing co-morbidity. However, the recently increasing laparoscopic experience and better results of meta-analysis published on the subject, surgeons are prompt to go for early lap cholecystectomy^{10,22} but conversion to open cholecystectomy may be required in large percentage of patients because of edema and adhesions and this technical difficulty has a direct bearing on high and variable conversion rate which has been reported to be 6-31%^{17,18}. The aim of lap cholecystectomy is to minimize traumatic insult to patient without compromising efficacy and safety of the t/t. Traditional open cholecystectomy which was gold standard t/t in past is an accepted fact but revolution and drastic changes came to existence in 1987 when Phillip moret carried out lap cholecystectomy.

OBJECTIVE

The purpose of this study is to present and share our experience of lap cholecystectomy in acute cholecystitis that

1. It is safe and effective t/t still
2. To determine whether lap cholecystectomy should be procedure of choice in t/t acute cholecystitis
3. The aim of this study to demonstrate safety and efficacy of lap cholecystectomy for patient with acute cholecystitis

MATERIAL METHOD

A prospective study was conducted in the department of general surgery of Teerthanker Mahaveer Medical College from June 2017 to May 2018 on patients of cholelithiasis. Total 1548 patient were admitted in the above mentioned period and out of these 143(23.3%) patient were diagnosed as having acute cholecystitis, were admitted either through emergency or OPD and were registered. Detailed history taking and clinical examination about age, sex, duration of pain, general condition was done and only 86 patients were found to in a condition to be operated.

Inclusion criteria:-

1. Right upper abdomen pain
2. USG findings- GB stone, acute inflammatory GB wall edema, peri-cholecystic collection

Exclusion criteria:-

1. GB malignancy
2. CBD calculus with or without jaundice
3. Portal hypertension
4. Acute pancreatitis
5. Pulmonary disease
6. Diabetes
7. Hypertension
8. Previous abdominal surgery
9. Severe obstructive or non-obstructive jaundice
10. Higher ASA scoring
11. Sepsis
12. Refusal for surgery
13. Positive viral markers

An informed well explained consent was taken from patient pre-operatively, particularly about the possibility for conversion to open surgery, if necessary. All patients were catheterized injection ceftriaxone 1g given one day prior to surgery, as well as just prior to anesthesia, NG tube was put on O.T. table. Observations during surgery

were noted. Presenting symptoms at the time of admission has been shown in table no -

All patients were operated as soon as possible after investigations, pre-anesthetic check-up(ASA score 1&2).

Table No 1

Symptoms	No. of patients
Acute upper abdomen pain	143
Fever	25
Nausea	70
Vomiting	68
Palpable lump	35
Leucocytosis	87
Altered liver function	8

Table No 2

USG findings	No. of patients
Distended GB	74
Thick walled GB	14
Double wall sign	21
Positive murphy's sign	6
Peri-cholecystic fluid	33
Presence of stone	133
Contracted GB	60
Pyocele	21

OBSERVATION

All observations have been shown in tables below.

Patients were closely watched after surgery and complication If any were noted in recovery phase.

Adhesion were cleared and exposure was done, position and thickness of GB, Adhesions with first part of duodenum, bile duct, callot's triangle and porta hepatis were ascertained and dissection was started at junction of GB with cystic duct. Many a times it was very difficult to hold GB fundus thus aspiration of latter was done to decompress and for retraction. Suction cannula was very helpful in our experience; it not only was an aid for suction of pericholic fluid but also helped in breaking the soft adhesions. Cystic duct and fibrous tissue around it because of edema, were very fragile so a very gentle dissection is a need of hour, there was oozing but it could be controlled. Another difficult problem was fragile nature of all tissue in callot's triangle and clips sometime teared the duct and in few cases we put silk knots for artery as well. Liver surface also bleeds much more as compared to chronic cases and again it was controlled by pressure application by GB itself or by gauze pressure. We found 9 cases of GB perforation with gangrenous wall and in majority of these cases (8) we had to convert to open. Pyocele possess some difficulty because of adhesions and gross oedema of neighboring organs.

Duration of surgery was slightly longer and average duration was (55 to 126 minutes). Female dominated the disease with maximum falling in age group of 25-45yr.

Main observatory findings were fibrous filmsy adhesions, very friable and fragile tissues, Phlegmon and perforation of GB with patchy gangrene, dense adhesions, especially at callot's triangle area.

Operation time varied from 55-126 minutes and hospital stay was almost same as in elective cholecystectomy but in few cases it is prolonged to 4-5 days.

Duration of symptoms

S.no.	Days	No of patients
1	>3 Days	41
2	3—5Days	26
3	>5 Days	19

Age

S.no.	Age in years	No. of patients
1	15—25	9
2	25—35	29
3	35—45	45
4	45and above	14

Observation During Surgery

1	Gall bladder Distention	73
2	Phlegmon	59
3	G B Perforation	9
4	Mirzzi syndrome	2
5	G.B Gangren	8
6	Dens Adhesions	18
7	Soft Adhesions	83
8	Empyema	17

Problems During Surgery

1	Oozing from Liver surface	34
2	Thickened gall bladder	62
3	Difficult callots dissection	73
4	Fragile tissues	51
5	Injury to CBD	Nil
6	Injury to Liver	Nil

Post operative Observations

1	Nausia and vomiting	76
2	Pain	86
3	Distention of Abdomen	32
4	Fever	6
5	Port site infection	3
6	Biliary Leakage	Nil
7	Removal of drain	3 days

DISCUSSION

In early years of L.C. surgery, acute cholecystitis was considered to be a relative contraindication.(Rati Agarwal 20,2,4)

However recent reports RatiAgarwal^{1,2,6,3} have suggested that L.C.is feasible and safe procedure for Acute Cholecystitis, although rate of conversion and complication are on higher side but variable.

However, more studies are still required for conclusive results.

The aim of our prospective study was to evaluate the safety and feasibility of the procedure.

Many laparoscopicsurgeons agree that in acute cholecystitis timing in cholecystectomy is an important factor in determining the outcome.

Ideally surgery should be performed as soon as after admission to the hospital, as possible.

(Rati et al²⁰; in clinical evaluation and comparing with delay L.C. also are of same opinion.

Although operation with golden in 72hrs. From the onset of symptoms has been suggested but such an early surgery is not always possible in clinical practice because of logistics difficulties in operating such a patient on emergency basis.

The operative difficulties found during L.C. in acute cases in our series have been thickened G.B.,anatomicalproblems,gross oedema and adhesions with stomach and duodenum.

Thus in our experience for any successful L.C. in acute cases decompression of G.B. by aspiration,additional 5th port for retraction and suction cannula for soft adhesions along with NG tube prior to port insertion are helpful steps.

Rati et alalso suggest partial cholecystectomy leaving Hartman's pouch and cystic duct after confirming the absence of distal residual structures.

Miller et¹² alis of opinion that advantages of L.C. is that it can safely and effectively extended to majority of pt. with acute cholecystitis.(surgical endoscopy july 1993 vol.-7 issue 4 page 296-299)

C.K. Kum et al¹⁴,In 2yrs. Retrospective study a L.C. in acute cases on 64 pt. ,found 46 operation to be successful and concluded to be a safe procedure.

S.botatis¹³ et al concludes in L.C. in acute cases that that is technically difficult but safe and effective in study of 315 pt.

.Al- mulhim al²⁴, about the timing of E.L.C. are of opinion that it can be safely perform recommended surgery within 72 hr. with the onset of symptoms.

Same recommendations regarding the timing of L.C. BY Ohta.m et²³ al on 100 pt.operated,observed no significant difference in operating time,conversion rate,blood loss,post-op morbidity and hospital stay and concluding 72hrs. being the best time for surgery.

Early cholecystectomy within 72hrs.has been found to be superior to late or delayed cholecystectomy with regard to hospital care and cost of t/t.

P ambe et¹¹ al in his article on 35 pt. operated confirms E.C.L. within 24hr. of onset of symptoms Is not superior to surgery with 25-72hrs. after symptom begin,but cholecystectomy for acute cases can safely be perform at any time within golden 72hrs.

Malik K.P. et al¹⁵ on 50 pt. comparing early and interval cholecystectomy were of opinion that both being safe but found operative difficulty and longer duration of surgery time.

CONCLUSION

Emergency/Early L.C. is a safe,reliable,cost effective modality in the management of acute cholecystitis. It results in accelerated recovery,negligible wound infection,minimal complications,less post-op pain and minimal hospital stay but relative complications are responsible for conversion like edema,abnormal anatomy,bleeding and CBD injury but these complications can be minimize in expert hands.

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