

ORIGINAL ARTICLE

Comparative Laparoscopic Cholecystectomy in Acute Cholecystitis in DHQ Abbottabad, KP-Pakistan

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ABSTRACT

Background: Early laparoscopic cholecystectomy before 72 hours is ideal for the treatment of acute cholecystitis after 72 hours, acute or ongoing fibrosis presents careful issues.

Aim: To compare the results of an acute cholecystitis blood pressure monitoring center and a specialist acute surgical service 72 hours after symptoms.

Study design: Cross-sectional study.

Place and duration of study: Department of General Surgery Benazir Bhutto Shaheed Hospital, (DHQ) Abbottabad from 1st October 2021 to 30th March 2022.

Methodology: One hundred and eighty acute cholecystectomy patients who went through CEL were enrolled. Record was gathered which included postoperative confusions, length of medical clinic stay, and season of a medical procedure. To get comparable outcomes, subgroup examination of older patients was performed.

Results: Eighty operations were performed within 72 hours of symptoms and 100 operations were performed after 72 hours, Patients who received early laparoscopic cholecystectomy for more than 72 hours had longer complication-free time" (125.4 vs. 116 minutes, P=0.035) and hospital stay (4.59 vs. 3.09 days, P=0.001). Postoperative sampling was higher in patients older than 75 years (P < 0.001).

Conclusion: Acute cholecystitis patients going through CLE in a careful unit might accomplish improved results even following 72 hours of side effects. In a subset of older patients, extensive hemostasis ought to be performed.

Keywords: Acute cholecystitis, early laparoscopic cholecystectomy (ELC)

INTRODUCTION

Early laparoscopic cholecystectomy (ELC) is the treatment of decision for acute cholecystitis (AC). This method has a critical risk of complications as it's a difficult surgical procedure (0.56-1.2%)^{1,2}. CA, expanded severity, high surgical excision has been accounted for up to 21.5%^{3,4}. Past researchers demonstrated that benefit of admission for ECL versus over DLC has been accounted for to be more useful, with low monetary costs^{5,6}.

Cao et al⁷ and Wu et al⁸ reported that presentation of ECC in the span of 7 days of side effect beginning was related with improved results for example less scar contribution, less days off work, and more limited emergency clinic stays and side effects showed up following 10 days.

Laparoscopic cholecystectomy has been considered as the golden standard for treatment. LC is more beneficial because it provides less pain, faster evacuation, faster recovery, better cosmetic results and lower cost⁹. Due to the increase in living standards, the elderly population is gradually increasing, so the prevalence of cholecystitis in the population is also increasing. Age-related comorbidities are the most important factors that increase the likelihood of mortality and morbidity after surgery^{10,11}.

MATERIALS AND METHODS

This cross-sectional study was conducted in the Department of General Surgery, Benazir Bhutto Shaheed Hospital, (DHQ) Abbottabad from 1st October 2021 to 30th March 2022 after IRB permission. Abdominal pain, proof of intense cholecystitis on ultrasound, CT scan or MRCP who in this way went through LC in a similar confirmation was included. Patients determined to have gallstone pancreatitis and intense cholangitis who went through LC were barred were excluded. The data was entered and analyzed through SPSS-26. One-sample t-test and Chi-square tests were applied. P<0.05 was considered as significant.

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RESULTS

Eighty surgeries performed within 72 hours of symptom while 100 patients underwent surgery within 72 hours of symptom onset were included in the ELC group (Table 1). There is no bile duct injury or or surgical procedure for 30 days, there was no significant in change rate and postoperative collection in the ELC group over 72 hours after side effect beginning, nonetheless, more patients with CPD had blood loss greater more than 200mL in 72 hours contrasted with patients without side effects" (12.4% versus 2.3%, p<0.001)". Median length of hospital stay was significantly for patients getting CLE over 72 hours after side effect beginning contrasted and those getting CLE under 72 hours after side effect beginning (4.59 versus 3.09 days, P = 0.001)". Median operative time was significantly longer for patients getting ELC after side effect beginning contrasted and 72 hours after side effect beginning (126.4 versus 116 minutes, P = 0.035) [Table 2].

Table 1: Comparison of different variables in both groups (n=180)

Variable	≤72 h since symptoms (n=80)	72 h since symptoms (n=100)	P value
Mean age (years)	53	55.3	0.204
Mean BMI (kg/m ²)	27.8	26.1	0.02
ASA Class			
1	15 (18.75%)	18 (18%)	0.959
2	45 (56.25%)	67 (67%)	
3	20 (25%)	15 (15%)	
Tokyo Guidelines severity grading			
1	18 (22.5%)	-	<0.001
2	65 (81.25%)	98 (98%)	
3	-	2 (2%)	
Diabetes mellitus	16 (20%)	38 (38%)	0.137
End stage renal failure	1 (1.25%)	4 (4%)	0.095
Previous abdominal surgery done	8 (10%)	9 (9%)	0.569
IHDs	4 (5%)	12 (12%)	0.33
On anti-platelets/ anticoagulants	3 (3.75%)	14 (14%)	0.045
Chronic obstructive pulmonary disease	-	1 (1%)	0.408

Table 2: Comparison of measures in both groups (n=180)

Variable	≤72 h since symptoms (n=80)	72 h since symptoms (n=100)	P value
Mean total length of hospitalization (days)	3.09	4.59	0.001
Mean no of days stayed in hospital after operation (days)	2.25	2.66	0.084
Bowel injury	-	-	-
Bile duct injury ^a	-	-	-
Post operative collection	2 (1.6%)	2 (2%)	0.698
Conversion to open	-	2 (2%)	0.241
Wound infection	2 (1.6%)	2 (2%)	0.698
Re-operation within 30 days	-	-	-
Blood loss (mL)			
<50	59 (47.2%)	64 (64%)	0.01
50-200	27 (21.6%)	49 (49%)	0.27
>200	2 (1.6%)	16 (16%)	<0.001

DISCUSSION

LC is also considered a safe procedure for patients. However, there are studies that report shorter hospital length of stay, mortality, and morbidity with higher ASA scores¹²⁻¹⁶. In a study by Yi et al¹⁷ reported that a higher ASA score increased mortality and morbidity, but did not affect operative time or discharge time. Complication rates in patients undergoing LC have been reported to be 5–15%, while mortality rates for the same group range from 0–1%¹⁸. 72-hour observation of ELC symptom acceptance in TG13¹⁹. Early surgical procedure, recently characterized as laparoscopic cholecystectomy, in no less than 72 hours of side effect beginning, is currently known as TG18. Likewise, the most recent TG18 actually affirms that beginning in the span of 72 hours of symptoms is ideal. Likewise this study affirms that a devoted ESAT group can deliver fantastic outcomes. That's why this study has been observed; no difference in postoperative complications between laparoscopic cholecystectomy before or after 72 hours which is consistent with previous results²⁰.

The open cholecystectomy is necessary when the Calot's triangle of bile is considered unsafe, as demonstrated by two patients who underwent CLE for more than 72 hours²¹⁻²³.

Regardless of the increased surgical technical requirements due to fibrous adhesions and duration of symptoms, choosing the same intraoperative procedural scheme with a coordinated and experienced ESAT team results in clinically comparable operative times²⁴.

CONCLUSION

Acute cholecystitis patients undergoing CLE can achieve better results even after 72 hours of dedicated ESAT equipment. The same surgical approach can be used for elderly patients, but careful hemostasis should be performed in this subgroup.

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