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AN ELABORATIVE DESCRIPTIVE RESEARCH TO ASSESS AND COMPARE THE LAPAROSCOPIC CHOLECYSTECTOMY OUTCOMES IN AN ONSET OF GALLBLADDER ACUTE INFLAMMATION

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Abstract

Objective*: The main purpose of this research work is to compare the results of laparoscopic removal of gallbladder in acute inflammation of the gallbladder in comparison to the interval surgical removal of the gallbladder with respect to the rate of conversion, duration of surgery & related problems.*

Methodology: *This research was elaborate descriptive in nature and it was carried out at Sir Ganga Ram Hospital, Lahore from February to September 2017 (Surgical Department). All the patients were separated into 2 groups. Group-1 included the patient of acute inflammation of the gallbladder & admitted in the surgical outpatient department and they were operated within 1-4 days after the admission. While group-2 had the elective patients with no proof of the acute inflammation of the gallbladder, they were welcomed through the normal outpatient department. The information of early diagnosis, the time duration of the onset of the symptoms, surgery time, change of operation method to open surgery, complication before and after the surgery & period of stay in the hospital studied for every patient in both groups.*

Results: *The surgery of three hundred and sixty patients carried out in the hospital in that particular period for cholelithiasis. Standard 4 ports were in use for the operation. There were one hundred and twelve patients in Group-1 & two hundred and forty-eight patients were in Group-2. Seventy-seven men & thirty-five women were the participants of Group-1. In Group-2, one hundred and twelve were male & two hundred and forty-eight were female. The average duration of time, for Group-1, was 64 ± 13 minutes. The average period of time for Group-2 was 60 ± 12 minutes. The mean quantity of the loss of blood during operation Group-1 was 45±33 millilitre & for Group-2 was a 30±20 millilitre.*

Conclusion: *Early LC (Laparoscopic Cholecystectomy) for acute inflammation of the gallbladder is less costly with a short period of stay in the hospital and decreases the danger of recurring cholecystitis.*

Keywords: *LC, Inflammation, Gall Bladder, Recur, Patient, Cholecystitis, Surgery and Operation.*

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INTRODUCTION:

The availability of the gallstones in the gallbladder is a very common disease in the whole world especially in females [1, 2]. The common symptoms are a disorder of digestive function, vomiting & extensiveness of the abdomen cavity. Acute inflammation of the gallbladder is a problem cholelithiasis which is much frequent [3, 4]. Different medicines were given to patients after admission before operation [5, 6]. In the past, the surgical removal of the gallbladder in cholecystitis was conducted after symptoms had collapsed & with a break of about 6 weeks as IC (interval cholecystectomy) [7]. LC in acute inflammation of the gallbladder is a very vital method in recent days to decrease the stay of patients at the hospital & to decrease the expense of the treatment [8]. LA is not famous in our areas because of non-presence of the skill level, proper apparatus & condition of operation theatre in emergency patients.

With the increase of the experience, LA can be carried out with perfection & in reduced risk condition [9]. With the LA, we can reduce the quantity of the patients & related problems because of repeated attack of infected gallbladder during the period of the conservative time [10]. The best time for the surgery of this disease is a controversial issue.

METHODOLOGY:

This research was elaborate descriptive in nature and it was carried out at Sir Ganga Ram Hospital, Lahore from February to September 2017 (Surgical Department). Patients with the main detection of the availability of gallstones in the gallbladder were the part of this research work. Formation of two groups carried out. Group-1 had acute inflammation of the gallbladder. The surgical outpatient department admitted them & they were operated within 1 – 4 days according to the emergency level. In Group-2, all the patients were elective cases without any proof of having acute inflammation of the gallbladder; they were welcomed through the normal outpatient department. LA conducted for every patient of both groups. The omission standards were the patients with; open cholecystectomy was organized from the start, patients of heart diseases & with past background of the laparotomy.

The study of the information of the all the patients about early detection, symptoms duration, change the method to open cholecystectomy, complications after and before the operation & period of the stay at the hospital, carried out. The symptoms are continuous pain from more than six hours with vomiting or high fever more than one hundred Fahrenheit. Patients had regular visits up to one complete month & the appearance of any complication was noted. SPSS software was in use for the collection and analysis of the collected information.

RESULTS:

The operation of three hundred and sixty patients carried out in the period of the case study cholelithiasis. Four standard ports were in use for the operation.

Table – I: Gender Distribution

Category	Male		Female	
	Number	Percentage	Number	Percentage
Acute (112)	77	68.7	35	31.3
Non-Acute (248)	35	14.11	213	85.89

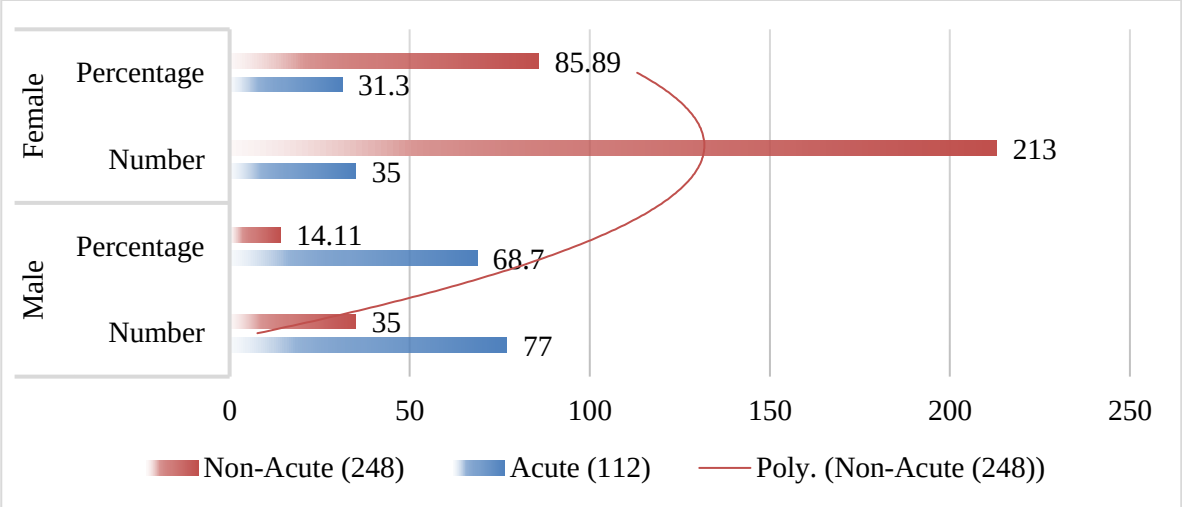
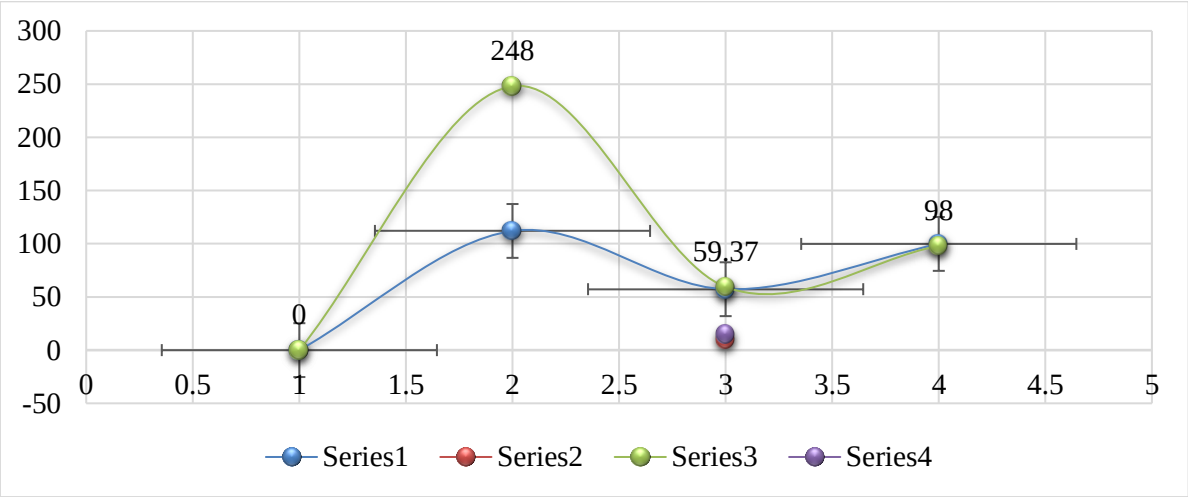


Table – II: Clinical Features and Demographics

Category	Total Number	Age (Years)	Mean Body Temperature
Acute	112	57.24	99.8
		10.26	
Non-Acute	248	59.37	98
		14.62	



Group-1 of acute cholecystitis had one hundred and twelve patients with seventy-seven men and thirty-five women. In Group-2, there were one hundred and twelve men and two hundred and forty-eight females. The average time of surgery for Group-1 was 64 ± 13 minutes. Whereas the average duration was 60 ± 12 minutes for group-2. The mean quantity of loss of blood at the time of operation was 45 ± 33 millilitres for Group-1 & 30 + 20 millilitres for Group-2. The average period of stay in the hospital was 03 ± 1 day for Group-1 while this duration was 01 ± 01 day for Group-2. Complications discovered in thirteen patients of Group-1. They were treated with different methods as open cholecystectomy, ERCP & stenting.

Table – III: Physical Examination Outcomes

Outcomes	Acute (112)	Non-Acute (248)	P-Value
Dyspepsia & feeling of upper abdominal fullness	112	248	0.002
Positive Murphy's sign	112	40	0.001

Table – IV: Clinical Outcomes

Outcomes		Acute (112)	Non-Acute (248)	P-value
Laboratory (Mean)	TLC	14.7	10.5	0.06
Ultrasonography Outcomes	Cholelithiasis	112	248	0.002
	Increased wall thickness (> 5mm) of gallbladder	76	0	0.005
	Pericholecystic fluid	8	0	0.005

Conversion to open cholecystectomy conducted in 3 patients. The pain was complained by 2 patients after discharge from the hospital. They were found with the accumulation of the fluid in the bed of gallbladder of thirty-five millilitres & twenty-five millilitres on USG abdomen. This problem was administered & rectified according to the procedure. The site of the infected epigastric port was reported in 3 patients on the seventh day after the operation. The wound opening, elimination of the seroma & dressing on daily basis carried out for the treatment of those 3 patients. This complication rectified in the time of one week. In Group-2, complications were too less. The formation of the seroma in the epigastric port site was found in only two patients. Conversion to the open cholecystectomy carried out in 3 patients.

Table – V: Intra-operative and Postoperative Outcomes

Outcomes	Acute (112)	Non-acute (248)	P-value
Duration of operation (minutes)	64	60	-
Per-operatively found acute (thick wall GB, adhesions)	80	142	0.002
The rate of conversion to open cholecystectomy	3	3	0.005
Duration of hospitalization (days)	3	1	0.08
Blood loss during surgery (ml)	45	30	0.05
Complication	7	3	0.06

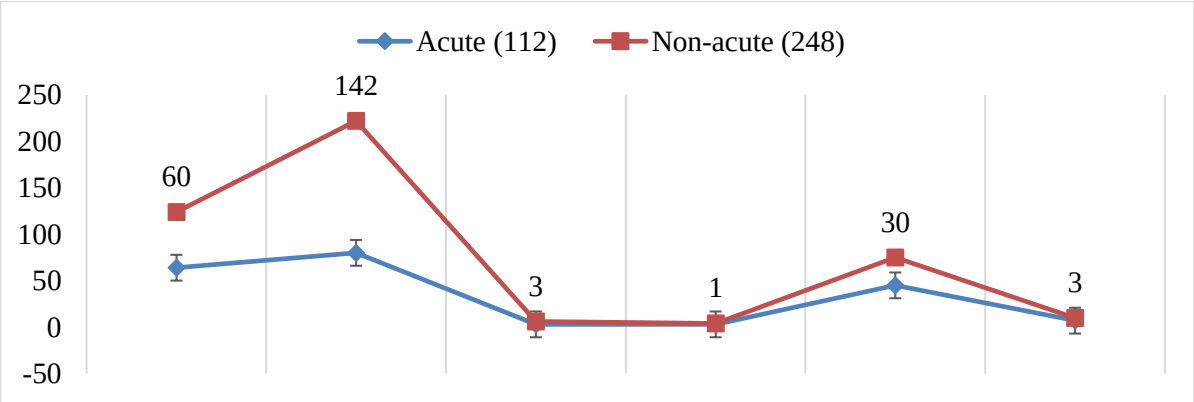
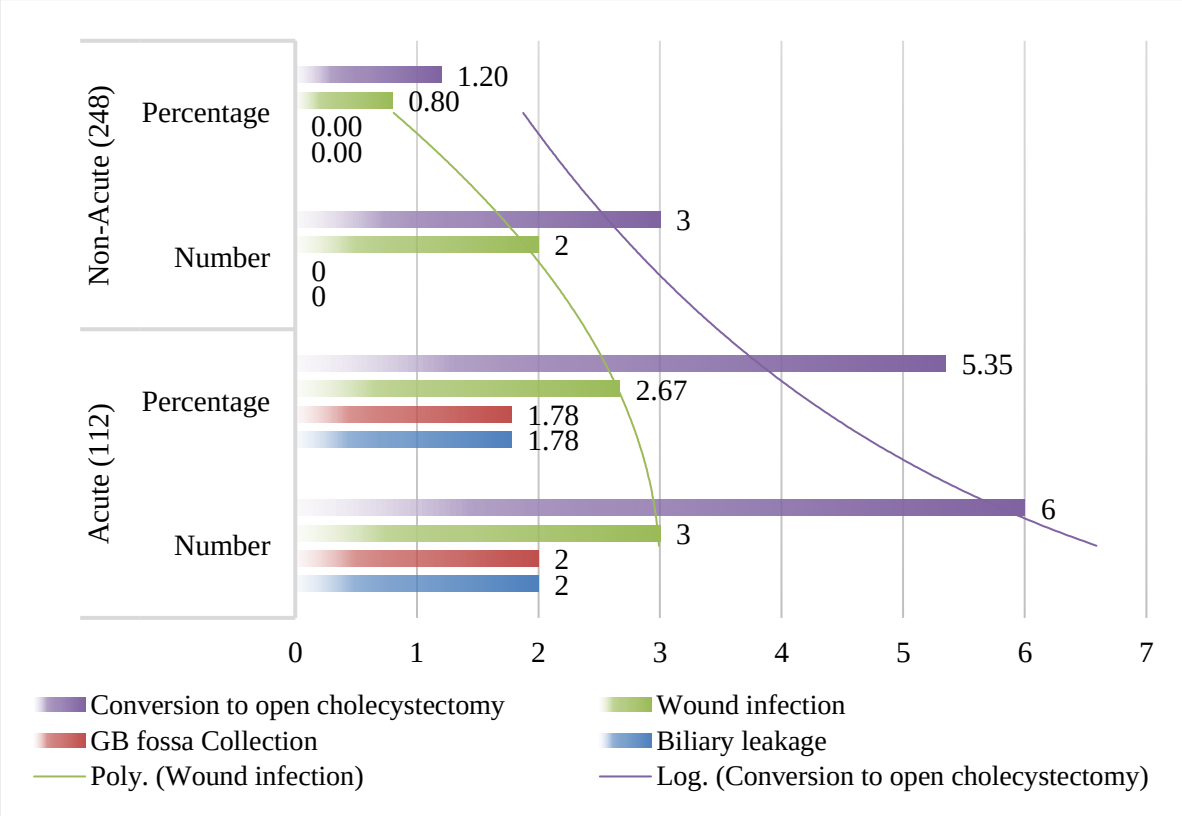


Table – VI: Laparoscopic Cholecystectomy Outcomes

Complications	Acute (112)		Non-Acute (248)		P-value
	Number	Percentage	Number	Percentage	
Biliary leakage	2	1.78	0	0.00	0.005
GB fossa Collection	2	1.78	0	0.00	0.005
Wound infection	3	2.67	2	0.80	0.08
Conversion to open cholecystectomy	6	5.35	3	1.20	0.06



DISCUSSION:

In this research work, we concluded that in time LA has benefits of less duration in the stay of the hospital, low costly & decreases the danger of recurring. Cholelithiasis is a very common disease in the whole world with an occurrence of about ten percent [11]. Women are more infected of this disease as compared to men with a ratio of men to women as 1:3 [12].

The occurrence of acute inflammation of the gallbladder in patients with recognized cholelithiasis is one percent per anum [13]. Women are more prone to acquire this disease [14]. In the past, this disease was cured predictably & after the diminishing the symptoms, patients got discharge & surgery of the patients carried out after four to six weeks duration but the complications of the gallbladder are thought to be rectified after six to eight weeks [15, 16].

In time LA is very secure and decreases stay in the hospital but with the same morbidity & mortality as compared to the late cholecystectomy [17 – 19]. In our country, LA for acute inflammation of the gallbladder is not active because of less experienced doctors in this field. We concluded that there is no much difference in early LA for this disease & method of elective surgery; relatively it is advantageous and cheap and it has the ability to save the patients from recurring off the disease.

Popkharitov concluded in his research work that in LA for acute inflammation of the gallbladder, there was not a disparity in the rate of conversion, the rate of complications or in the stay of the patient in the hospital [20]. An early LA laparoscopic cholecystectomy conducted on the patients with mild gallstone pancreatitis provides the decrease in the stay of the patients at the hospital [21]. Currently, the inclination changed to early surgery of patients for time savage & less costly as well [22]. The size of the samples was too small & the effectiveness of the cost was not evaluated in a proper way.

CONCLUSION:

In time, LA for acute cholecystitis is very cheap with small duration of stay in the hospital & decreases the danger of recurring cholecystitis. But It is may be highly linked with the high frequency of the infections of the wound and needs expertise. The application of the LA for the treatment of this disease is a better choice. More research works on a high number of samples are the requirement to confirm the outcome of this research work.

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