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Research Article

**AN OBSERVATIONAL RESEARCH TO ASSESS PAIN
DURATION & OPERATIVE OUTCOMES IN THE PATIENTS
DIAGNOSED WITH ACUTE GALL BLADDER DISEASES****Rabia Iram, Rabia Ameer Ali, Sania Anwar**
Allied Hospital Faisalabad**Abstract:**

Objective: Our aim in this particular research was to observe that if there is a connection of pain duration with the operative outcomes in the disease of the acute gallbladder.

Methods and Patients: We completed this observational study at Sir Ganga Ram Hospital, Lahore at Surgical Unit from May 2016 to April 2017 on a total of sixty patients diagnosed with acute gallbladder diseases. Sampling technique employed in this research was non-probability convenience sampling. We also used a Proforma in order to include diagnostic values, clinical characteristics, operative outcomes and plan of the treatment. Diagnostic work-up included LFT (Liver Function Tests), complete blood picture and hepatobiliary ultrasound; whereas, CT Scan and HIDA was also considered according to the requirement. The researcher also performed regular radiographic and haematological studies.

Results: Study included total sixty cases with a dominance of females over males as we included 50 females (83.3%) and 10 males (16.7%). Patients were positive in various categories such as 25 biliary colic patients (41.7%), 14 Murphy's sign positive patients (56%) and 21 patients of USG pathology (84%). There were also acute cholecystitis patients with 25 fever cases (71.4%), 25 positive Murphy's sign (71.4%) and 31 patients with an increased total leukocyte count (88.5%), reported as most common research outcomes. In the pre-operative outcomes, 17 cases had a chronically inflamed gallbladder (68%) and 4 cases had an acutely inflamed gallbladder (16%) in the time duration of under twelve hours. There was a common report about the acute gall bladders inflammation in 23 patients (65.7%) and 10 patients of the chronically inflamed gallbladder (28.5%).

Conclusion: Prolonged pain duration refers to strong patients' outcomes and operative outcomes.

Keywords: Acute Cholecystitis, Biliary Colic, Clinical Outcomes, Operative, Pre-Operative, Post-Operative Outcomes and Cholecystitis ctomy.

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INTRODUCTION:

One of the primary reasons behind the incidence of acute cholecystitis was gallstones observed in about ninety percent of the patients with a presence of ten percent gallstones in the adult population. One to two percent of these is symptomatic per annum because about 2/3rd of the patients already remain asymptomatic [1]. Cholelithiasis includes increasing age, female sex, pregnancy, obesity, sudden weight loss, certain drugs and ethnicity as risk factors [2]. There is also a rare occurrence in the severely hospitalized cases of parenteral nutrition intake, hypotension, sepsis patients and failure of multiple organ systems. There is a rare incidence of gallbladder tumours in acute cholecystitis patients [3]. An acute gallbladder inflammation presents pain in the right epigastrium or hypochondrium. The incidence of pain may vary from a discomfort of mild to severe nature which can also be constant or colicky. The United Kingdom faces about five percent acute surgical emergencies due to an acute gallbladder incidence [4]. These diseases include acute calculus, biliary colic, calculous cholecystitis and associated disorders such as polyps and biliary sludge [5]. Positive Murphy's sign refers to right hypochondrium constant pain for a period of under twelve hours, a systemic and positive inflammatory response; whereas, biliary colic refers to a pain with no inflammation signs and colicky pain in the abdomen. Literature confirms pain duration a positive indicator or the operative outcomes [6]. Management of the patient's basis on the pain duration. Surgical treatments practice an early cholecystectomy regularly [7]. Better outcomes are also possible through laparoscopic cholecystectomy in order to treat cholelithiasis [8]. Our aim in this particular research was to observe that if there is a connection of pain duration with the operative outcomes in the disease of the acute gallbladder.

METHODOLOGY:

We completed this observational study at Sir Ganga Ram Hospital, Lahore at Surgical Unit from May 2016 to April 2017 on a total of sixty patients diagnosed with acute gallbladder diseases. Sampling technique employed in this research was non-probability convenience sampling. We also used a Proforma in order to include diagnostic values,

clinical characteristics, operative outcomes and plan of the treatment. Diagnostic work-up included LFT (Liver Function Tests), complete blood picture and hepatobiliary ultrasound; whereas, CT Scan and HIDA was also considered according to the requirement. The researcher also performed regular radiographic and haematological studies. We included both male and female with pain history in the right epigastrium or hypochondrium, fatty foods side effects and having cholecystitis confirmation. Patients were further subdivided in Biliary Colic and Acute Cholecystitis groups having 35 and 25 patients respectively. The patients who complained a painless than twelve hours in the right hypochondrium, TLC < 11000 and afebrile were Biliary Colic patients; whereas, Acute Cholecystitis patients reported for more than twelve hours pain in the right hypochondrium. Other USG evidence was the thickness of the wall (4 mm), positive Murphy's Sign and peri-cholecystitis fluid. We did not include any case with repeated occurrence of jaundice, cholecystitis and sudden weight loss. The other cases who had stones in the bile duct, gastritis signs and increased amylase also excluded. Consultant surgeons performed open cholecystectomy after an informed consent. The researcher analyzed research outcomes on SPSS.

RESULTS:

The study included total sixty cases with a dominance of females over males as we included 50 females (83.3%) and 10 males (16.7%). Patients were positive in various categories such as 25 biliary colic patients (41.7%), 14 Murphy's sign positive patients (56%) and 21 patients of USG pathology (84%). There were also acute cholecystitis patients with 25 fever cases (71.4%), 25 positive Murphy's sign (71.4%) and 31 patients with an increased total leukocyte count (88.5%), reported as most common research outcomes. In the pre-operative outcomes, 17 cases had a chronically inflamed gallbladder (68%) and 4 cases had an acutely inflamed gallbladder (16%) in the time duration of under twelve hours. There was a common report about the acute gall bladders inflammation in 23 patients (65.7%) and 10 patients of the chronically inflamed gallbladder (28.5%). Detailed outcomes are given in the given tabular and graphical data.

Table – I: Pre-Operative Outcomes

Outcomes		Biliary Colic	Acute Cholecystitis	Total
Total	Number	25	35	60
	Percentage	41.70	58.30	100.00
Females	Number	20	30	50
	Percentage	33.30	50.00	83.30
Males	Number	5	5	10
	Percentage	8.30	8.30	16.60
Fever	Number	0	25	25
	Percentage	0.00	71.40	41.60
Murphy’s Sign (Positive)	Number	14	25	39
	Percentage	56.00	71.40	65.00
TLC (> 11,000)	Number	1	31	32
	Percentage	4.00	88.50	53.30
USG Outcomes	Number	21	12	33
	Percentage	84.00	34.30	55.00

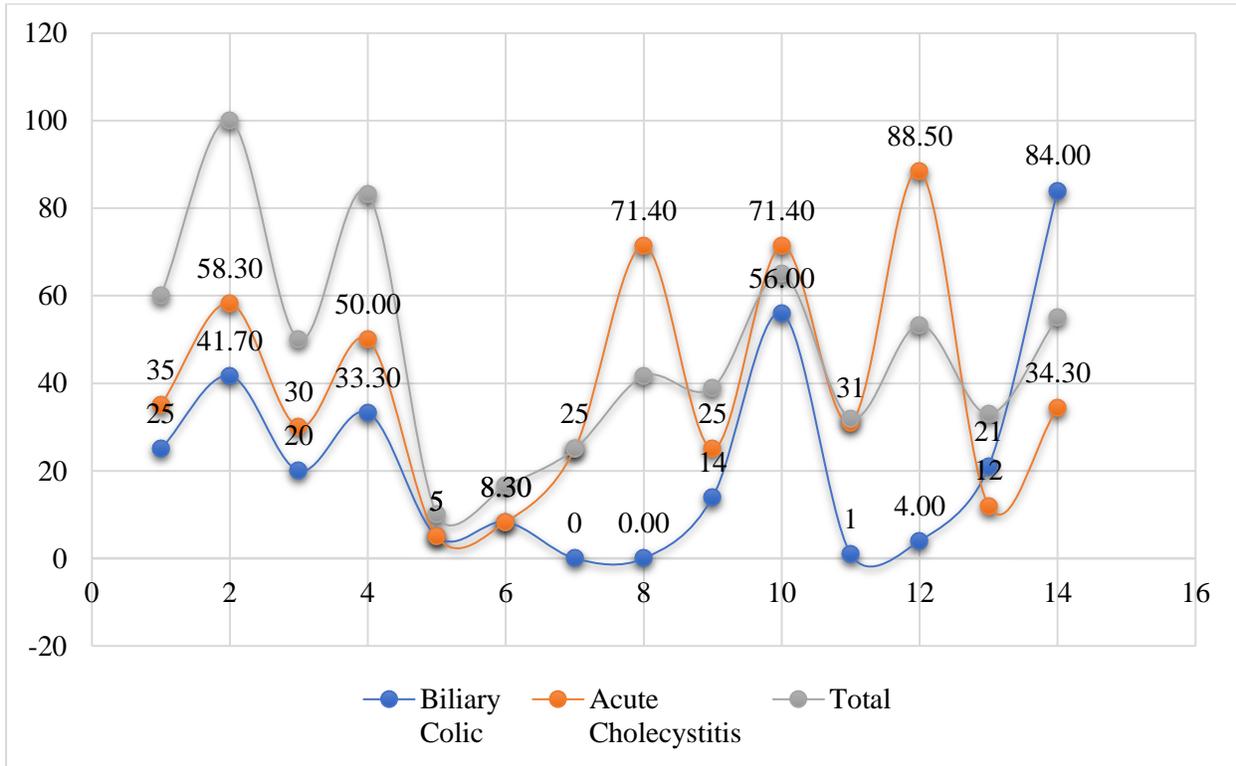
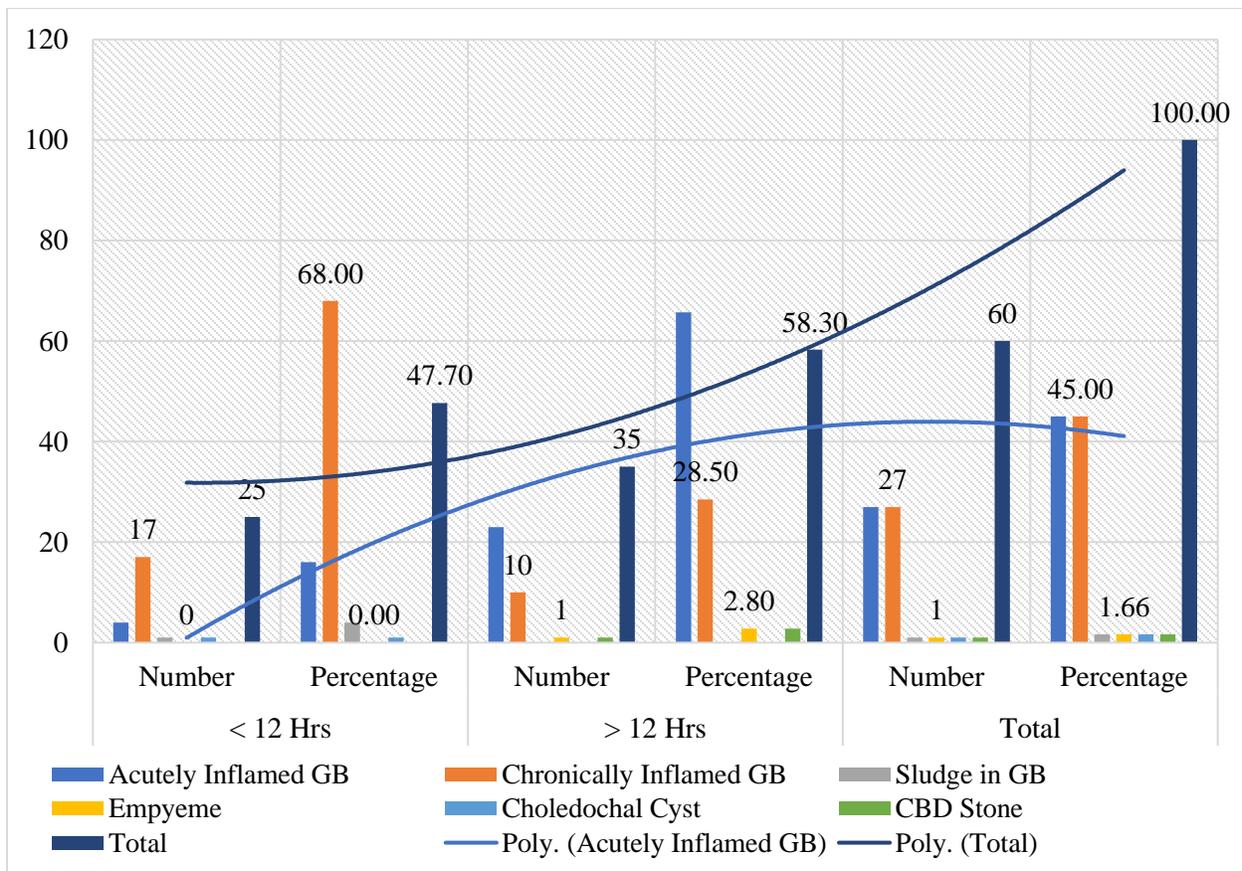


Table – II: Operative Outcomes with respect to Time Elapsed

Operative Outcomes	< 12 Hrs		> 12 Hrs		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
Acutely Inflamed GB	4	16.00	23	65.70	27	45.00
Chronically Inflamed GB	17	68.00	10	28.50	27	45.00
Sludge in GB	1	4.00	0	0.00	1	1.66
Empyema	0	0.00	1	2.80	1	1.66
Choledochal Cyst	1	1.00	0	0.00	1	1.66
CBD Stone	0	0.00	1	2.80	1	1.66
Total	25	47.70	35	58.30	60	100.00



DISCUSSION:

The most common disease among the acute gallbladder diseases is acute calculus cholecystitis which affects twenty million American every year with a disease burden of 6.3 billion dollars [9 – 12]. Biliary Colic reports range from one to four percent every year among these patients, in case of non-management of colic surgically; acute cholecystitis develops in about twenty percent of the patients [13].

Low mortality rate and better prognosis are two properties of an uncomplicated cholecystitis [14]. In the presence of complications, the prognosis is not that much effective and gallbladder complications are gangrene or perforation. Less significant are obstructive jaundice, cholangitis and pancreatitis. The most repeated sign is the pain in the upper abdomen in gallbladder diseases. Pain duration has its significance which is our objective in this research.

The male to the female distribution of our research sample same as reported in other research studies with a dominance of female population over males as eighty-five percent of the gallstones incidence reported in the females [15]. The age bracket included in this study was also same as reported in other research studies with majority of the patients above forty years of age; gallbladder disease is advanced with the age advancement. Four Fs refer to the incidence of gallstone that is forty, fat, fertile and females.

In this research, 41.7% and 58.3% of the patients were biliary colics and acute cholecystitis respectively. No fever case presented in the biliary colic group; whereas, 71.4% had a fever in acute cholecystitis and febrile case were 71.4% which is comparable with the other research outcomes [16]. About 71.42% patients presented positive Murphy's sign in the group of acute cholecystitis; whereas, 56 % patient in the group of biliary colic. There are a higher negative predictive value and higher sensitivity of Murphy's sign; however, the specificity was not that much high. Elder age patients presented significantly lower sensitivity values; thus, negative Murphy's sign is not useful in the elder patients in order to rule out cholecystitis if clinical history and associated tests suggest disease diagnosis. Total count of the leukocyte was above and under 11,000 among in four percent biliary colic group and 96% respectively. In the group of acute cholecystitis, about 88.5% of patients reported above 11000 (leukocyte count); whereas, in 11.5% it was under 11,000. The first line diagnostic tool is USG [17]. In the USG outcomes of the biliary colic group, cholelithiasis (84%) and not even a single case was of acute cholecystitis. About four percent patients developed a choledochal cyst, gallbladder mass in eight percent and gallbladder sludge in four percent cases. Whereas, in second group 54.2% patients had cholelithiasis, acute cholecystitis (34.3%), acute cholecystitis with phlegmon (8%), gallbladder sludge (8%) and no case of acalculous cholecystitis. In the group of biliary colic patients, we reported chronically inflamed gallbladder in (68%), acutely inflamed gallbladder (16%) and gallbladder sludge (4%). There were also a few cases of choledochal cyst (4%). About 65.7% of patients had developed acute gallbladder inflammation in acute cholecystitis arm, chronically inflamed gallbladder (28.6%) and bile duct stone and empyema gallbladder (each 2.8%). These outcomes are similar to reported outcomes of Fitzgibbons. Ry Jr reported reliable acute cholecystitis outcomes in order to predict intra-operative outcomes; whereas, the association of intra-operative and pathological diagnosis was poor.

CONCLUSION:

A prolonged pain duration refers to strong patients' outcomes and operative outcomes. For more precise outcomes studies with large-scale populations are mandatory.

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