LAPAROSCOPIC CHOLECYSTECTOMY CONVERSION TO OPEN CHOLECYSTECTOMY

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ABSTRACT
Laparoscopic Cholecystectomy was done in a consecutive series of 135 patients. Laparoscopic converted to open Cholecystectomy in 13 patients. Anatomy not clears in 7 patients, bleeding (massive) in 1 patient, CBD clamp lig. in 1 patient, cholangioacarinoma in 1 patient, equipment failure in 1 patient and billiary leakage in 2 patients. Conversion rate to open Cholecystectomy was 9.62%.

Keywords: Laparoscopic Cholecystectomy conversion open Cholecystectomy

INTRODUCTION
The successful introduction of laparoscopic Cholecystectomy by Muhe in 1985 usheard in a new era of management of gallbladder and billiary disease. The laparoscopic Cholecystectomy had provide a platform for an ever expanding body of minimally invasive procedures. The society of American Gastrointestinal Endoscopic Surgeons (SAGES) moved quickly with guidelines for credentialing in laparoscopic Cholecystectomy. In June 1994, the American College of Surgeons (ACS) published a statement on emerging surgical technologies and guidelines for the evaluation of credentials on individual Surgeons for the purpose of awarding surgical privileges. Approximately 20% of patients with gallstones are symptomatic of asymptomatic 1-2% develop billiary symptoms and cholangitis every year and once symptomatic these individuals have a 50% chance of having next attack within one year. Laparoscopic Cholecystectomy is gold standard treatment of gallbladder disease all over the world today. This evaluation also is manifest in approaches to management of Choledocolithiasis. The patients who presented with jaundice elevated cholestatic liver function testes, history of pancreatitis or dilated billiary system on radiographic imaging were considered candidates for pre-operative ERCP.

PATIENTS AND METHODS
A consecutive series of 135 patients of both ganders with symptomatic gallstones were admitted in the department of general surgery unit-I, Ghurki Trust Teaching Hospital Jallo More Lahore during the period of 15-07-2016 to 08-11-2017, were selected for trial. Of 135 patients, 101 were females and 34 were males. Diagnosis of gallstones was made on ultrasonography and clinical ground. In female series of 101 patients, age ranged 19-72 years, mean age 40.62. While in male series of 34 patients, age ranged 22-70 years, mean age 44.02 with female male ratio 74.82%:25.18% (Table No.01). Also month wise presentation of gallstones disease was calculated (Graph No.01). Standard 3 ports Laparoscopic Cholecystectomy was done in 113 patients and 4 ports L.C done in 22 patients. All patients were followed for complications, reason for conversion and conversion to open Cholecystectomy (Table NO 02).

RESULTS
Results of 135 patients, 101 were females and 34 were males underwent Laparoscopic Cholecystectomy. In Females age ranged 19-74 years mean age 40.62 and in

Table 1: Age/Gander Distribution of patients

Age (Years)	Females		Males		F:M
	No.	Per %	No.	Per %	Ratio
10-20	2	1.98	0	0	2:0
21.30	25	24.75	7	20.58	25:7
31-40	33	32.67	9	26.47	33:9
41-50	25	24.75	8	23.52	25:8
51-60	13	12.87	6	17.64	13:6
61-70	2	1.98	4	11.76	2:4
71-80	1	0.99	0	0	1:0
Total	101	100	34	100	74.82: 25.18

males age ranged 22-70 years mean age 44.02 with female to male ratio 74.82:25.18. Reasons for conversion, anatomy was not clear in 07 patients (5.18%), bleeding (massive) in 01 patient (0.74%), CBD clamp lig. in 01 patient (0.74%), billiary leakage in 02 patients (1.48%), Cholangocarcinoma in 01 patient (0.74%) and equipment failure in 01 patient (0.74%). In our series conversion rate to open Cholecystectomy was 9.62% (Table NO.03).

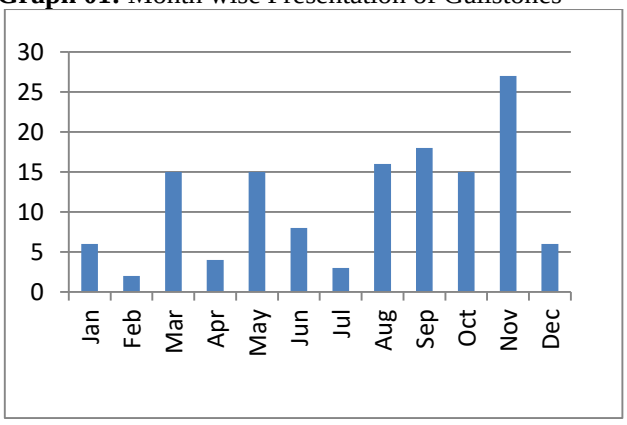
Table 2: Comparison of per-operative complications/Reasons for conversion

Reasons	Number 135	Per%
Anatomy Not Clear	7	5.18
CBD Injury	0	0
Bleeding (Massive)	1	0.74
Gut Injury	0	0
Fistula	0	0
Equipment Failure	1	0.75
Cholangocarcinoma	1	0.74
CBD clip Ligature	1	0.74
Billiary Leakage	2	1.48
Total	13	9.62

Table 3: Conversion rate

Conversion to Open Chole	Number	Per %
Yes	13	9.62
No	122	90.38
Total	135	100

Graph 01: Month wise Presentation of Gallstones



DISCUSSION

Laparoscopic Cholecystectomy has caught the imagination of surgical community and we have moved from a position of skiptism to the point where instrument makers are unable to keep the pace with the surgical demand. Gallstone disease is one of the most common condition encountered in general surgical practice especially in adult population. Its prevalence in United States is approximately 10-15% amongst white males and in Europe around 18.5%. In Urban setting of our country, it is the third commonest cause of admission[4]. Since the introduction of Laparoscopic Cholecystectomy in the late 1980, after its rapid acceptance, it has become the gold standard for the treatment of gallstones and is being ranked the commonest operation performed worldwide[4]. The relative indicators of asymptomatic gallstones for L.C include young women of child bearing age[7,] patients debilitated by cancer phobia, patients with Choledocholithiasis and Cholecystolethiasis and children with gallstones. Gallbladder cancer is rare but important complication of Cholelithiasis because its diagnosis is commonly delayed and long term survival extremely low (<10%)[7]. Gallbladder stones as major risk factor up to 85% of patients with gallbladder malignancies. The risk of gallbladder cancer is increased more than 10-folds in patients who have gallstones greater than 3 cm in diameter or 4% of all gallstones patients[7]. The indicators of carcinoma include polyp greater than 10 mm, patient's age over 60 years and the presence of solitary lesion. Early laparoscopy Cholecystectomy with full thickness dissection is thus recommended, also for polypoid lesion in gallbladder greater than 10 mm or for a polyp of any size associated with gallstones. The potential for advanced cancer increase with size early open Cholecystectomy and partial liver resection is recommended once polypoid lesion exceeds 18 mm[7]. This suggests that in asymptomatic patients with these risk factors, laparoscopic Cholecystectomy has the potential to prevent billiary malignancies and should be recommended.

In large study of kidney and pancreatic transplant, pre-transplants laparoscopic Cholecystectomy for silent gallstones reduced in reduction in frequency of billiary complications and decrease risk of graft failure. In cardiac transplant significant morbidity and mortality were observed when urgent operation was required for acute billiary disease. Majority of transplant surgeons have begun to recommend pre-transplant laparoscopic Cholecystectomy who found to have gallstones[6]. The incidental laparoscopic Cholecystectomy occasionally been recommended for those patients with gallstones who are undergoing other laparoscopic procedures[7]. The laparoscopic approach in HIV associated billiary disease is better tolerated and reduced risk of HIV transmission to operating team.

L.C is performed by using three ports or four ports. Poon CM et al have modified the operating telescope to achieve a wide field of view (zero degree telescopes).

Two ports demands greater expertise and skills. Shah Waqar et al performed laparoscopic Cholecystectomy by two ports[6], while NG W.T performed by one port through a single wound of combining camera and adjacent 10mm working ports[6].

In study of Munwar Jamil et al, females were 90.29% and males were 9.7%, while in study of Muhammad Munir Memon et al, females were 85% and males were 15%, females to male ratio was 5.6:1, age ranged 17-68 years, mean age 40 years. In our series females were 101(74.82%), and males were 34(25.18%) (Table No.01), female to male ratio was 74.82:25.18%, In Netherland series 50% were female and 39% were males for all age groups, while prevalence of gallstone disease was 9.2% for Italy, 9.7% for spam, 28.5% for chilly and 3.1% Thailand, while peak age of onset of gallstone disease over 60 years for United states of America and Europe.

Reason of conversion to open Cholecystectomy and the rate of conversion are different in different series. Average conversion rate of 5-35% have been reported in several series, while conversion rate up to 75% has been reported with gangrenous gallbladder or gallbladder Empyema[1,14]. The reasons for conversion are different, CBD injury was most important issue, other reasons including dense adhesions, haemorrhage (massive) in clot's triangle instrument failure, billiary digestive fistula and in some series injury to aorta by versus needle or Trocar have been reported [2,4].

The study of Munawar Jamil et al showed conversion rate 7.54% in early group and 10% conversion rate in delayed group with overall conversion rate 17.25% bile duct injury in 2 patients out of 53 (3.77%) in early group and in 2 patients out 50 (4%) in delayed group. In series of Muhammad Munir Memon et al conversion rate was 10%, dense adhesions in 7 patients (5.6%), billiary leakage in 6 patients (9.9%), bile duct injury in 2 patients (1.6%) and mortality in 01 patient (0.833%). In our series of 135 patients, conversion rate was 9.62% (Table No.02, 03), reasons for conversion i.e. anatomy was not clear in 7 patients (5.18%), massive bleeding in 01 patients (0.74%) cholangio-carcinoma in 01 patient (0.74%), CBD clip ligature in 01 patient (0.74%), billiary leakage in 02 patients (1.48), equipment failure in 01 patient (0.74%) and mortality was not occurred in our series.

CONCLUSION

It is minimally invasive procedure, is less traumatic and results in short period of hospital stay and early recovery, which is major economic benefit to both the patients and health care system. In addition to efficacy and safety of the procedure it results in fewer intra-abdominal adhesions and a better cosmetic outcome. L.C can be performed safely as a day case procedure, but this technique can be associated with a higher incidence of complications, reflecting our learning curve. The challenge faced by all general surgical departments relates how best to train junior surgeons in a safe and effective manner.

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