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Original Research

Assessment of 83 cases of cholelithiasis managed in general surgery department

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ABSTRACT:
Background: Gallstone disease remains one of the major causes of abdominal morbidity and mortality through the world. The present study was conducted to assess cases of cholelithiasis managed in general surgery department. **Materials & Methods:** 83 patients of cholelithiasisof both genderswere subjected to haemogram, ECG, LFT, blood sugar, blood urea, serum creatinine, urine analysis, blood group,chest x-ray, ultrasound scanof the abdomen. Patients underwentlaparoscopic cholecystectomy and open cholecystectomy. Symptoms and post- operative complications were recorded. **Results:** Out of 83 patients, males were 33 and females were 50. Common symptoms were pain in 72, fever in 14, nausea/ vomiting in 44, jaundice in 16 and dyspepsia in 25 patients. The difference was significant (P<0.05). Type of surgeryperformed was laparoscopic cholecystectomy in 54 and open cholecystectomyin 29. Post- operative complications were hemorrhage in 2, wound infection in 1, retained stone in 1, bile leak in 3 and prolonged ileusin 1 case. The difference was significant (P< 0.05). **Conclusion:** Maximum cases were managed with laparoscopic cholecystectomy. Post- operative complications were hemorrhage, wound infection, retained stone and bile leak.
Key words: Gallstone disease, laparoscopic cholecystectomy, hemorrhage

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INTRODUCTION

Gallstone disease remains one of the major causes of abdominal morbidity and mortality through the world. Nowadays, gallbladder disease is a frequent problem in developed countries, representing a major health problem.[1] Gallstone disease is a chronic recurrent hepatobiliary disease, the basis for which is the impaired metabolism of cholesterol, bilirubin and bile acids, which is characterized by the formation of gallstones in the hepatic bile duct, common bile duct, or gallbladder.Cholelithiasis is a major health problem easily encountered in clinics.[2]The prevalence and risk factors of asymptomatic cholelithiasis vary with race, diet, culture, and geographic differences. Prevalence of 13.3% to 50.5% has been reported for asymptomatic cholelithiasis in Western countries, including United States and Europe, whereas the prevalence of asymptomatic cholelithiasis in Eastern countries.[3]

Changing incidence in India is mainly attributed to westernization andavailability of investigation that is ultrasound to urban as well as rural area and alsobecause of increase affordability due to change in the socio-economic structure andthe cost of investigations.[4]Becauseofincreasedincidenceof gall stones and its variable presentationsin India as well as in the west, there is a great need for a study which can provide theinformation regarding the prevalence of the disease, various clinical presentation andmanagement, outcomes of the cholelithiasis combining it with appropriate investigation which varies from surgeon to surgeon.[5]Identifying differences in the prevalence and risk factors for asymptomatic cholelithiasis might be important in management of asymptomatic cholelithiasis and planning preventive strategies for asymptomatic cholelithiasis.[6]The present study was conducted to assess cases of cholelithiasis managed in general surgery department.

MATERIALS & METHODS

The present study comprised of 83 patients of cholelithiasisof both genders. The consent was obtained from all enrolled patients.

Data such as name, age, gender etc. was recorded. All patients were subjected tohaemogram,ECG, LFT, blood sugar, blood urea, serum creatinine, urine analysis, blood group,chest x-ray, ultrasound scanof the abdomen. Patients underwentlaparoscopic cholecystectomy and open cholecystectomy. Symptoms and post- operative complications were recorded. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Total- 83		
Gender	**Males**	**Females**
Number	33	50

Table I shows that out of 83 patients, males were 33 and females were 50.

Table II Assessment of symptoms

Symptoms	Number	P value
Pain	72	0.02
Fever	14	
Jaundice	16	
Dyspepsia	25	
Nausea/vomiting	44	

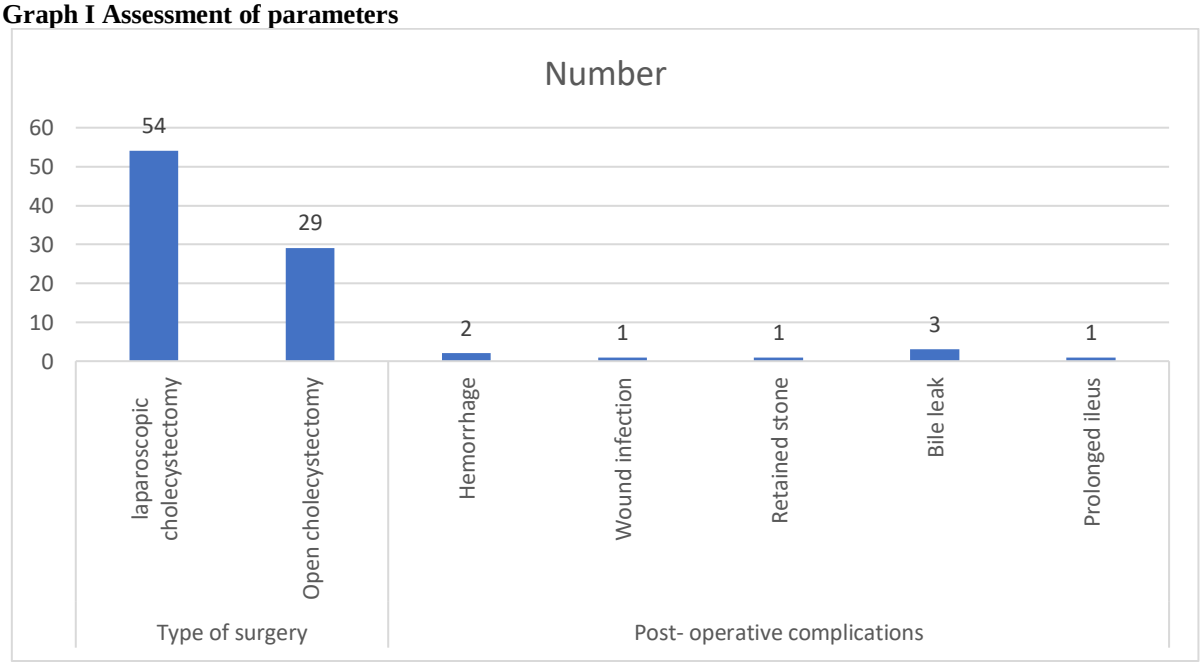
Table II shows that common symptoms were pain in 72, fever in 14, nausea/ vomiting in 44, jaundice in 16 and dyspepsia in 25 patients. The difference was significant (P< 0.05).

Table III Assessment of parameters

Parameters	Variables	Number	P value
Type of surgery	laparoscopic cholecystectomy	54	0.04
	Open cholecystectomy	29	
Post- operative complications	Hemorrhage	2	0.03
	Wound infection	1	
	Retained stone	1	
	Bile leak	3	
	Prolonged ileus	1	

Table III, graph I shows that type of surgery performed was laparoscopic cholecystectomy in 54 and open cholecystectomy in 29. Post- operative complications were hemorrhage in 2, wound infection in 1, retained stone in 1, bile leak in 3 and prolonged ileus in 1 case. The difference was significant (P< 0.05).

Graph I Assessment of parameters



DISCUSSION

Gallstonesare majorcause of morbidity and mortality throughout the world. In the United States alone, the diagnosis and treatment of gallstone diseaseaccounted for more than $5 billion in direct costs, including a half millioncholecystectomies. At least 10 % of adults havegallstones.[7,8] The prevalence varies withage, sex, and ethnic group.[6] Thereis an increasing prevalence with age, after the ageof 60 about 10 to 15 percent of men and 20 to 40 percent of women have gallstones.[9]The present study was conducted to assess cases of cholelithiasis managed in general surgery department.

We found that out of 83 patients, males were 33 and females were 50. Taylor et al[10] in their study LC was attempted in all patients with AC. Twelve of the patients were scheduled for elective LC as they were not thought to have AC preoperatively. Eight of these unsuspected cases of acute cholecystitis had both a normal preoperative white blood cell count and were afebrile. The other 32 patients had a clinical presentation consistent with AC. The only diagnostic finding common to all cases of AC was abdominal pain and tenderness. In addition to AC, five patients also had gallstone pancreatitis, and three others were found to have concomitant choledocholithiasis. Fourteen patients required intraoperative conversion to open cholecystectomy for a laparoscopic success rate of 68%. The most common reason for conversion was difficulty in the dissection or unclear anatomy caused by dense adhesions. LC is an appropriate surgical treatment of AC, provided the surgeon abandons the laparoscopic approach if unable to safely proceed. Diagnostic and admission criteria for AC that requires elevated white blood cell count and/or fever may need revision.

We found that common symptoms were pain in 72, fever in 14, nausea/ vomiting in 44, jaundice in 16 and dyspepsia in 25 patients. Lo et al[11] in their study 99 patients with a clinical diagnosis of acute cholecystitis were randomly assigned to early laparoscopic cholecystectomy within 72 hours of admission (early group, n = 49) or delayed interval surgery after initial medical treatment (delayed group, n = 50). Thirteen patients (four in the early group and nine in the delayed group) were excluded because of refusal of operation (n = 6), misdiagnosis (n = 5), contraindication for surgery (n = 1), or loss to follow-up (n = 1). Eight of 41 patients in the delayed group underwent urgent operation at a median of 63 hours (range, 32 to 140 hours) after admission because of spreading peritonitis (n = 3) and persistent fever (n = 5). Although the delayed group required less frequent modifications in operative technique and a shorter operative time, there was a tendency toward a higher conversion rate (23% vs. 11%; p = 0.174) and complication rate (29% vs. 13%; p = 0.07). For 38 patients with symptoms exceeding 72 hours before admission, the conversion rate remained high after delayed surgery (30% vs. 17%; p = 0.454). In addition, delayed laparoscopic cholecystectomy prolonged the total hospital stay (11 days vs. 6 days; $p < 0.001$) and recuperation period (19 days vs. 12 days; $p < 0.001$).

We found that type of surgeryperformed was laparoscopic cholecystectomy in 54 and open cholecystectomyin 29. Post- operative complications were hemorrhage in 2, wound infection in 1, retained stone in 1, bile leak in 3 and prolonged ileusin 1 case. Fajardo et al[12] in their study a sample of 376 patients with cholelithiasis/cystitis was selected. 156 underwent open cholecystectomy and 220 underwent laparoscopic cholecystectomy. The following data were tabulated- frequency of complications and mortality, post-surgical hospital stay, reincorporation to daily activities, surgery duration, direct medical costs, costs to the patient, and mean and incremental cost-effectiveness ratios.Frequency of complications was 13.5% for open cholecystectomy and 6.4% for laparoscopic cholecystectomy (p=0.02); hospital stay was longer in open cholecystectomy than in laparoscopic cholecystectomy (p=0.003) as well as the reincorporation to daily activities reported by the patients (p<0.001). The duration of open cholecystectomy was 22 min longer than laparoscopic cholecystectomy (p<0.001). The average cost of laparoscopic cholecystectomy was lower than open cholecystectomy and laparoscopic cholecystectomy was more cost-effective than open cholecystectomy (US$ 995 vs. US$ 1,048, respectively). The patient out-of-pocket expenses were greater in open cholecystectomy compared to laparoscopic cholecystectomy (p=0.015). Mortality was zero.

The selection of procedure for management of cases depends on surgeon's choice and patient preference.

CONCLUSION

Authors found that maximum cases were managed with laparoscopic cholecystectomy. Post- operative complications were hemorrhage, wound infection, retained stoneand bile leak.

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