

ORIGINAL ARTICLE

EARLY CHOLECYSTECTOMY IN ACUTE CHOLECYSTITIS:
EXPERIENCE AT DHQ HOSPITAL ABBOTTABAD

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Background: Cholelithiasis is a common disorder affecting the females more commonly. Most of the population carrying the gallstones remains asymptomatic, however biliary colic and acute cholecystitis is a common complication. Most surgeons agree that early cholecystectomy is safe and should be the procedure of choice in acute cholecystitis. Objective of this study was to determine the frequency of patients with acute cholecystitis, and morbidity and mortality in such cases. **Methods:** A prospective study, conducted at DHQ Hospital Abbottabad, and Yahya Welfare Hospital, Haripur simultaneously on 162 patients having symptomatic gall stones. All patients were admitted on presentation and surgical intervention done within 72 hours on patients fit for surgery. Patients with cardiac problem, HCV positive, and with radiologic evidence of Common Bile Duct (CBD) stones were excluded. Ultrasonography abdomen was the main investigation. **Results:** Postoperative complications, hospital stay and return to routine activities was evaluated. The postoperative complications were seroma formation in 3 cases (1.9%), liver trauma resulting in bleeding and prolonged hospital stay in 1 case (0.6%). In 1 patient stones slipped into CBD resulting in CBD exploration. **Conclusions:** Early cholecystectomy with upper right transverse incision and muscle retraction in acute cholecystitis is a safe, and cost effective procedure with fewer complications, better cosmesis and early return to work.

Keywords: Gall stones, Cholecystitis, Bile leakage, CBD stones, Cholecystectomy

INTRODUCTION

Cholelithiasis is a common disorder in our society. Females are most commonly affected while males are affected less commonly.¹ Biliary colic (56%) and Acute cholecystitis (36%) is the most common presentation of cholelithiasis.² Traditional management of acute cholecystitis is initial conservative management with antibiotics followed by elective cholecystectomy. Repeated admissions are required for Acute Cholecystitis who are managed conservatively. It creates a great economic burden on the hospital budget and also on patient's pocket. Repeated admissions keep the patient out of job for significant period of time. Most of these patients develop complications and conservative treatment has to be abandoned.³ Surgical procedure required in these cases is time consuming with maximum complications and prolonged hospital stay.^{4,5}

In the past decade the management of acute cholecystitis has changed and now most surgeons agree that early cholecystectomy is safe and should be the procedure of choice in Acute Cholecystitis. Although laparoscopic cholecystectomy is considered to be the procedure of choice but some surgeons consider mini cholecystectomy as an alternative to laparoscopic cholecystectomy, especially where laparoscopic facilities are not available.⁶⁻⁸ Rate of complications is higher in laparoscopic cholecystectomy than with open cholecystectomy especially in the hands of new comers.⁹ Oral dissolution therapy and Extra Corporeal Shock Wave Lithotripsy have limited role in treating

cholelithiasis as there is disadvantage of leaving the diseased gallbladder in place.^{10,11}

Early cholecystectomy avoids repeated admissions and the patient is back to work and earning his livelihood.

PATIENTS AND METHODS

This study was conducted in DHQ Hospital Abbottabad and Yahya Welfare Hospital Haripur from Jan 2006-March 2009. Total of 162 patients were subjected to surgery. All patients male and female who reported with pain right hypochondrium were admitted to hospital and investigated with USG immediately. Patients having acute pain of less than 5 days and tenderness right hypochondrium were included in the study. All patients having symptomatic cholelithiasis were further investigated with Blood Complete Picture, LFTs, ECG and X-ray chest. Pre-operative or per-operative cholangiogram was not done. Patients of all ages were included and were divided in five age groups. Common age group was (36-45). Out of 162 only 15 were male while 147 were females. Male/female ratio was 1:9.8.

Patients declared poor anaesthesia risk due to cardiac problem and those having radiologic evidence of Common Bile Duct (CBD) stones were excluded. Surgery was carried out within 72 hours of admission after informed consent and patients were evaluated for complications, hospital stay and return to normal activities.

All operations were done under general anaesthesia. Incision made was right upper transverse with retraction of Rectus abdominus muscle.¹²⁻¹⁴

Wound closure was done with sub-cuticular Prolene resulting in a cosmetic scar. Average operation time was 35 minutes. Drain was placed in 8 patients only which was removed after 24 hours. In 2 patients drain was kept for 3 days. All patients were started orally on the next morning. All patients were followed up as out patients for late complications.

RESULTS

The results are presented in Table-1, 2, and 3. Average operation time was 35 minutes. In patients having empyema and mucocele, the gallbladder was aspirated before cholecystectomy. In 3 cases the gall bladder was very fragile and perforated during surgery. Pus, bile and stones which spilled in the peritoneum cavity were aspirated and removed. In 6 cases (3.7%), there was empyema of gallbladder while mucocele with impacted stone at neck of gallbladder in 4 cases (2.5%). In 8 cases (5%) the gallbladder was small, shrunken and thick walled. Drain was placed in 8 patients only which was removed after 24 hours. In 2 patients drain was kept for 3 days. All patients were started orally on the next morning.

Postoperative recovery was very good and mean hospital stay was 2 days. As the incision was not muscle cutting so post operative pain was minimal and the patient as mobilized early.¹⁵ One dose of antibiotics was given at the time of induction while 2 doses were given post operatively. 2 patients had 3 days stay due bile leakage and bleeding. Post operative complications were seroma formation in 3 cases (1.9%), bleeding from gallbladder bed and prolonged hospital stay in 1 case (0.6%). In 1 patient (0.6%) stones slipped into CBD resulting in CBD exploration with prolonged operation time and prolonged hospital stay. One patient (0.6%) developed post operative jaundice which on ERCP revealed CBD stone, which was successfully retrieved through ERCP.

Table-1: Age and sex distribution (n=162)

Variable	No. of Cases	Percentage
Age (years)		
25-35	38	23.45
36-45	53	32.75
46-55	36	22.22
56-65	26	16.00
66-75	9	5.55
Gender		
Female	147	90.74
Male	15	9.26

Table-2: Per-operative gall bladder findings (n=162)

Total number of Patients	Number	%
Empyema gallbladder	6	3.7
Mucocele	4	2.5
Perforation	3	1.9
Shrunken thick walled gallbladder	8	5.0
Pericholecystic fluid	6	3.7

Table-3: Postoperative complications (n=162)

Complications	Number	%
Bleeding	1	0.6
Seroma	3	1.9
Bile leakage	1	0.6
Post Op. Jaundice	1	0.6
Total patients with complications	6	3.7

DISCUSSION

Traditional management of acute cholecystitis is initial conservative management with antibiotics, followed by elective cholecystectomy. Conventional incision for cholecystectomy is Kocher's incision which is sub costal incision with muscle cutting resulting in post operative pain and prolonged hospital stay.^{13,14} In this prospective study, smaller transverse incision and muscle retraction was used to minimise the trauma and early recovery. Our results are comparable with other such studies; mini-laparotomy study by Nasrullah Khan¹⁵ and mini-cholecystectomy by Faiz Mohammed Khan¹⁶. Common age group in our study was 36-45 as compared to similar study where common age group was 40-45 yrs. Out of 162 only 15 were male while 147 were females with male/female ratio 1:9.8. The mean hospital stay was 2 days while the patient was out of work for 6-7 days. The post operative hospital stay and return to work is comparable to laparoscopic cholecystectomy where the hospital stay was 2 days and work disability was 5-6 days but the complication rate is higher with laparoscopic cholecystectomy.^{18,19} In our study average hospital stay was 2 days while patient return to work after 2 weeks where physical activity was involved but where no physical activity was involved patient was on job after 6 days. Our study compared with mini-laparotomy study by Nasrullah Khan where operative time was 50 minutes and post operative hospital stay was 2 days.¹⁵ Post operative complications in our study were seroma formation in 3 cases while bleeding and bile leakage in one case respectively. We had no case of wound infection. Seroma formation in our study may be because we used sub-cuticular wound closure. The operating time for laparoscopic cholecystectomy was 60-90 minutes.

CONCLUSION

Early cholecystectomy with upper right transverse incision and muscle retraction in acute cholecystitis is a safe cost effective procedure with shorter operating time, fewer complications, better cosmesis and early return to work. Early cholecystectomy should be adopted as it reduces the risk of complications and also the economic burden on patient and hospital resources.

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