ORIGINAL ARTICLE

Outcomes of Laparoscopic Cholecystectomy in the elderly versus young patients

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ABSTRACT

Objective: To see the outcomes of laparoscopic cholecystectomy in elderly v/s young patients.
Materials and methods: This study was carried out in general surgery department of Nawaz Sharif Social Security University Hospital Lahore from January 2009 to January 2011. We divided the patients into 2 groups on the basis of their age i.e., below and above 60 years. Analysis and record of Age, sex, type of operation and rate of conversion of both the groups was done.
Results: Total 200 patients had undergone cholecystectomies for chronic cholelithiasis in general surgery department of Nawaz Sharif Social Security University Hospital Lahore from January 2009 to January 2011. These 200 patients were divided into 2 groups on the basis of their age. Group 1 included 140 patients of age <60 years where as group 2 included 60 patients of age >60 years. In each group majority of the patients were females. All patients underwent the lap. cholecystectomy.
Conclusion: The conclusion is that although the laparoscopic Cholecystectomy is done more commonly in younger patients, age is not an important factor for both conversion and morbidity; thus in elderly patients laparoscopic surgery can also be performed safely.
Key words: Lap chole, elderly, cholelithiasis

INTRODUCTION

The gold standard treatment for the gall stones, now a days is laparoscopic Cholecystectomy. Laparoscopic Cholecystectomy is better than open one are very well documented but this procedure is associated with high rate of biliary tree injuries[1]. Nowadays, the first choice of treatment for the removal of gall bladder in elderly patients is laparoscopic cholecystectomy, especially before the development of complications like acute cholecystitis or the formation of dense adhesions from chronic cholecystitis[2], but the safety of this procedure in old patients is still questioned in certain studies[3,4,5]. This study was done to compare the outcomes of laparoscopic cholecystectomy in young patients (<60 years of age) with elderly patients (>60 years of age)

MATERIALS AND METHODS

This study was a randomized, controlled trial in which outcomes of laparoscopic cholecystectomy done in elderly v/s young patients were studied. This study was carried out in general surgery department of Nawaz Sharif Social Security University Hospital Lahore from January 2009 to January 2011. Total 200 patients of both sexes between 15 to 70 years of age presenting with cholelithiasis evident on ultrasound in the surgical outpatient department of Nawaz Sharif Social Security University Hospital Lahore from January 2009 to January 2011 were included in the study. The patients with acute cholecystitis, gall bladder cancer, multiple abdominal surgeries, multiple co morbidities, obstructive jaundice, dilated common bile duct, acute pancreatitis, common bile duct stones/ mass or patients requiring intraoperative fluoro chlangiogram / common bile duct exploration were excluded from the study. The patients requiring conversion from laparoscopic to open cholecystectomy due to any of above mentioned reasons were also excluded. The patients below age of 15 years or more than 70 years will be excluded from the study. These 200 patients were divided into 2 groups on the basis of their age. Group 1 included 140 patients of age <60 years where as group 2 included 60 patients of age>60 years. SPSS version 17 was used for data analysis.

RESULTS

Total 200 patients had undergone cholecystectomies for chronic cholelithiasis in general surgery department of Nawaz Sharif Social Security University Hospital Lahore from January 2009 to January 2011. These 200 patients were divided into 2 groups on the basis of their age. Group 1 included 140 patients of age <60 years where as group 2 included 60 patients of age >60 years. In each group majority of the patients were females who underwent laparoscopic cholecystectomy (Table1).

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Table 1: Indications for laparoscopic cholecystectomy

Indications	=n	%age
Chronic cholecystitis	117	58.5
Repeated attacks of biliary colic	50	25
Cholelithiasis (patient's wish)	23	11.5
Acute cholecystitis	10	5

After cholecystectomies, these patients were kept in hospital for one day. Certain patients required more hospital stay because of postoperative complications. All these complications were managed conservatively, in certain cases antibiotics (intravenous) were used but no surgical management was required for these patients. All those postoperative complications are elaborated in following table along with the number of patients in both groups who had these complications with percentages.

Table 2: Postoperative complications

Complications	Group <60 yrs of age (n=140)	Group >60 yrs of age (n=60)
Port site infection	10(7.1 %)	2(3.3%)
Minor bile leak	5(3.6%)	1(1.6%)
Intraperitoneal collection	6(4.3%)	2(3.3%)
Pulmonary problems (basal atelectasis, pneumonia, pleural effusion etc.)	5(3.6%)	8(13.3%)

Many of these 200 patients, who presented to us with cholelithiasis, were also suffering from certain other medical conditions. All these co morbid conditions along with total number of patients suffering from them are elaborated in following table 3

Table 3: Co morbid conditions

Co morbid	Group <60 yrs of age(n=140)	Group >60 yrs of age (n=60)
Hypertension	13(9.3%)	10(16.7%)
Diabetes mellitus	7 (5%)	8(5.7%)
COPD	0	5(3.57%)
Hepatitis C	15(10.7%)	5(3.57%)
Hepatitis B	5(3.6%)	2(1.43%)

Out of these 200 patients, 17 were converted from laparoscopic cholecystectomy to open (Table 4).

Table 4: Factors responsible for conversion of laparoscopic cholecystectomy to open cholecystectomy

Factors	Group <60 yrs of age (n=140)	Group >60 yrs of age (n=60)
Difficult anatomy	6(4.3%)	2(3.3%)
Bleeding (intraoperative)	2(1.4%)	2(3.3%)
Adhesions due to previous surgery	4(2.8%)	1(1.7%)
Total	12(8.5%)	5(8.3%)

DISCUSSION

After the introduction of laparoscopic cholecystectomy, there has been a dramatic change in the management of gall stone disease[6]. Gall stone complications are also more common in elderly patients[7]. Shorter hospital stay, early return to daily life activities, less physiological dysfunction were the factors which established laparoscopic cholecystectomy as an acceptable and popular option for removal of gall bladder[8,9,10,11,12,13,14]. These above mentioned benefits of laparoscopic cholecystectomy, makes this procedure an acceptable option for elderly people who have many other co morbid conditions which sometimes make surgery difficult and dangerous for them. The associated co morbid conditions of the patients included in our study are quite similar to certain other international studies[15,16]. Certain international studies have shown that frequency acute cholecystitis is higher in elderly patients[17,18], but according to the results of our study, only 10 patients presented with acute cholecystitis and only 3 out of them were >60 years of age. The factors responsible for the conversion of laparoscopic cholecystectomy to open are elaborated in table 3. It clearly shows that the percentage of conversion was 8.3% in elderly patients (>60 years of age). This finding is quite similar to other international studies which range between 5% and 25%[17,19,20]. According to this study, the conversion rate for young patients was 8.5%. According to certain available international literature, increased age of the patients is also an important risk factor for conversion of laparoscopic cholecystectomy to open method. This can be attributed to the longer history of gall stones in elderly and increased number of attacks of acute cholecystitis[21,22].

Reduced morbidity and mortality are the reason that why laparoscopic approach is preferred in elderly patients than open approach for removing gall bladder. This fact can be proved by reported incidence in certain international studies of morbidity with open cholecystectomy in elderly population is approximately 23-28% and mortality is 1.5-2%[23,24]. In laparoscopic cholecystectomy in elderly, the reported incidence of morbidity is 5-15% and mortality is 0-1%[3,18,25]. In our study, there was no mortality at all. Cholecystectomies are much difficult to perform in male patients but our study did not support this fact[26]. Laparoscopic surgery is presently being considered as more feasible and reliable technique for elderly patients[27,28.29.30,31].

CONCLUSION

Although laparoscopic Cholecystectomy is done more commonly in younger patients, age is not an important factor for both conversion and morbidity;

thus in elderly patients laparoscopic surgery can also be performed safely.

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