

ORIGINAL ARTICLE**Evaluation of Complications associated with Laparoscopic Cholecystectomy: A Retrospective Study**

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ABSTRACT:

Background: The risks and complications of LC must be neither over-rated nor under-rated. Hence, we planned the present study to assess various complications associated with LC. **Materials & methods:** The present study was conducted in the general surgery wing of the medical hospital included assessment of complications in patients undergoing LC procedure. Ethical approval was taken from institutional ethical committee after explaining in detail the entire research protocol. Retrospective assessment of data records of a total of 100 patients was done. Intra-operative and post-operative complications were recorded. All the results were analysed by SPSS software. **Results:** Complications were more common in subjects with more than 65 years of age. Males were more commonly associated with these complications. **Conclusion:** Complication associated with LC is more frequently encountered in males.

Key words: Cholecystectomy, Complications, Laparoscopic.

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This article may be cited as: Sharma O. Evaluation of Complications associated with Laparoscopic Cholecystectomy: A Retrospective Study. J Adv Med Dent Scie Res 2017;5(11):112-113.

Access this article online	
Quick Response Code 	Website: www.jamdsr.com
	DOI: 10.21276/jamdsr.2017.5.11.28

INTRODUCTION

The risks and complications of LC must be neither over-rated nor under-rated. Laparoscopy is not easy for the surgeon, thorough instruction as well as experience being crucial for improvement of results. Contrary to initial reports of an increased complication rate, recent data show that LC entails lower morbidity and mortality rates than open operation. In a comparative study, open operation was associated with a 7.7% morbidity rate, compared with 1.9% for LC, and a 5% mortality rate vs 1% for LC.¹⁻⁵ Hence, we planned the present study to assess various complications associated with LC.

MATERIALS & METHODS

The present study was conducted in the general surgery wing of the medical hospital included assessment of complications in patients undergoing LC procedure. Ethical approval was taken from institutional ethical committee after explaining in detail the entire research protocol. Retrospective assessment of data records of a total of 100 patients was done. This included appraisal surgical conventions, record of kind of anesthesia given, restorative and clinical subtle elements of the considerable number of subjects. Different confusions alongside the recurrence of their event were ascertained.

We additionally computed the danger of advancement of these difficulties. Different parameters which were broke down included weight list (BMI), white platelet tally, and level of C-responsive protein (CRP), pre-agent and post-agent clinical discoveries. Circulation of records of the considerable number of subjects was done in view of the estimations of their BMI, CRP levels and age. Twenty four hours previously the surgery, ultrasonographic examination was done in every one of the patients. In light of the related discoveries, subject records were ordered into three classes; Group 1; included endless cholecystitis, Group 2; included intense cholecystitis, hoisted gallbladder divider thickness > 3 mm, and Group 3; included gallbladder with sinewy changes and an analytics with > 2 cm in its most prominent measurements. A standard four-port strategy was performed in all cases. All the results were analysed by SPSS software. Chi-square test, student t test and Mann-Whitney test were used for assessment of level of significance. P-value of less than 0.05 was taken as significant.

RESULTS

We observed that complications were more common in subjects with more than 65 years of age. Males were more commonly associated with these complications.

Table 1: Correlation of examined parameters and frequency of complications

Parameter		Subjects with Intra-operative complications (N= 16)	Subjects Post-operative complications (N= 11)	P- value
Age	More than 65 years	10	7	0.02*
	Less than 65 years	6	4	
Gender	Female	7	6	0.01*
	Males	9	5	
BMI	Less than 25	3	1	0.02*
	More than 25	13	8	
White blood cell count	Less than 10×10^9	4	3	0.01*
	More than 10×10^9	11	8	
CRP	Less than 5	6	4	0.03*
	More than 4	8	6	

*: Significant

DISCUSSION

In the present study, we observed that age, gender, BMI, inflammation and CRP are significant risk factors in subjects in which complications occur in association with LC. Peters JH et al performed 283 consecutive laparoscopic cholecystectomies with no deaths and a morbidity rate of 5.3% (15 of 283 patients; six major complications, nine minor complications). Major complications included one bile duct injury requiring laparotomy and t-tube insertion and two patients with retained stones. Symptomatic bile leakage occurred in three patients (1%). Two of these bile leaks were from accessory ducts entering the gallbladder bed; the third leak was secondary to a cystic duct leak. Eight patients (2.8%) required conversion to open cholecystectomy. Minor complications included three patients with subumbilical wound infections, two patients with urinary tract infections, one patient with costochondritis after operation, and three patients with prolonged hospital stays (more than 48 hrs) caused by ileus or fever. Several patients with life-threatening complications, including two patients who ultimately died, were transferred to our care from other centers. These included two patients with common duct injuries combined with duodenal perforations (one of whom died), one patient with a complete common duct transection, one patient with major common hepatic duct injury, and two patients with further instances of bile leakage. Laparoscopic cholecystectomy can be performed safely, and it can be associated with life-threatening complications. Prevention of complications is dependent on proper patient selection, meticulous technique, and an accepting attitude toward conversion to "open" cholecystectomy.⁶

Seleem M et al evaluated the feasibility of day surgery procedures in laparoscopic cholecystectomy (LC). A total of 210 patients scheduled for elective LC between 2006 and 2008 were included in our study. The mean age was 40.63 years (range, 25 - 70 years). The indication for surgery was symptomatic cholelithiasis confirmed by ultrasonography without clinical or radiological evidence of acute cholecystitis. All patients were informed about the same-day discharge policy and received the postoperative instruction form on discharge. Preoperative work-up included history taking and physical examination in addition to standard laboratory and

radiological tests. Patients above 35 years of age had an ECG done. All patients were examined in the outpatient clinic by a consultant anesthesiologist the night before surgery. Operative time, hospital stay, and complications were recorded. Telephonic feedback, was taken as an early follow-up. Out of the total number of patients, 140 patients were ASA (I) and 70 were ASA (II) (40 patients were controlled hypertensives and 30 were controlled diabetics). Conversion rate was 1.4%. The mean hospital stay was 6.7 hours (range, 6 - 8 hours). The mean operative time was 31.2 minutes (range, 20 - 60 minutes). None of the patients required an abdominal drain. No morbidities or mortalities were reported in this series. LC may be done as a day surgery procedure with optimal patient satisfaction and without complications.⁷

CONCLUSION

From the above results, the authors concluded that complication associated with LC is more frequently encountered in males.

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