Journal of Advanced Medical and Dental Sciences Research

@Society of Scientific Research and Studies

Journal home page: www.jamdsr.com doi: 10.21276/jamdsr

(e) ISSN Online: 2321-9599; (p) ISSN Print: 2348-6805

Original Article

Assessment of Cases of Open and Laparoscopic Cholecystectomy- A Clinical Study

Mohd. Rehan Rashid

Associate Professor, Department of General Surgery, Hind Institute of Medical Sciences Mau Ataria Sitapur U.P., India

***ABSTRACT*:**
Background: Laparoscopic cholecystectomy (LC) has become the gold standard for surgical treatment of benign gallbladder disease. The present study was conducted to compare laproscopic and open cholecystectomy. **Materials & Methods:** The present study was conducted on 112 cases of cholecystectomy performed in the department in last 6 months on both genders. Patients were equally divided into 2 groups of 61 each. Group I were treated with laproscopic cholecystectomy and group II with open cholecystectomy. Both groups were compared for any complication or hospital stay. **Results:** 2 patients in group II had bleeding. Surgical site infection was seen in 1 in group I and 3 in group II, bile duct injury was evident in 2 in group II. Mean hospital stay in group I was 2.4 days and in group II was 4.5 days. The difference was significant (P< 0.05). **Conclusion:** Authors found laparoscopic cholecystectomy better as compared to open cholecystectomy.
Key words: Gallbladder, laparoscopic cholecystectomy, Open cholecystectomy.

Received: 8 July, 2018 Revised: 12 August, 2019 Accepted: 15 August, 2019

Corresponding Author: Dr. Mohd. Rehan Rashid, Associate Professor, Department of General Surgery, Hind Institute of Medical Sciences Mau Ataria Sitapur U.P., India

This article may be cited as: Rashid MR. Assessment of Cases of Open and Laparoscopic Cholecystectomy- A Clinical Study. J Adv Med Dent Scie Res 2019;7(9): 44-46.

INTRODUCTION

The gallstone disease prevalence is about 5%-27% in the general adult population. In Saudi Arabia no reported actual prevalence, Abu Eshy[1] reported that overall prevalence of gallstone disease was 11.7% although about 80% of the cases. Cholelithiasis the most common digestive disorder was traditionally being dealt by convention or open surgery.

Laparoscopic cholecystectomy techniques have made a revolution in gastro intestinal surgery in recent years. Laparoscopic cholecystectomy (LC) has become the gold standard for surgical treatment of benign gallbladder disease. Cholecystectomy causes redistribution of bile acid pool in the entero-hepatic circulation and increases the frequency of cycling cause reduction in pool size thus exerting effect on lipid profile decreasing total cholesterol and LDL cholesterol levels. Minimal invasive surgery, cure and safety of patient are the priority of the modern surgical method.[2] Laparoscopic cholecystectomy has proved and increased the importance of minimal access. It is very safe and easy because of better magnification. Advantages of Laparoscopic cholecystectomy are that it has shortened hospital stay, less morbidity, mortality, a quicker return to work and with good cosmetic result. Nowadays conversion rate to open cholecystectomy is reduced.[3] Even most difficult laparoscopic cholecystectomies have been performed successfully without complications. Ghnnam et al.[4] presented the first controlled study that compared laparoscopic EC and laparoscopic DC, with lower morbidity and hospital stay in the laparoscopic EC group. The present study was conducted to compare laproscopic and open cholecystectomy.

MATERIALS & METHODS

The present study was conducted in the department of general surgery of Hind Institute of Medical Sciences Mau Ataria Sitapur U.P., India. It comprised of 112 cases of cholecystectomy performed in the department in last 6 months on both genders. All were informed regarding the study and written consent was obtained. Ethical clearance was obtained prior to the study.

General information such as name, age, gender etc. was recorded. Patients were equally divided into 2 groups of 61 each. Group I were treated with laproscopic cholecystectomy and group II with open cholecystectomy. Both groups were compared for any complication or hospital stay. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS

Table I: Distribution of patients

Total- 112		
Groups	**Group I**	**Group II**
Method	Laproscopic cholecystectomy	Open cholecystectomy
Number	61	61

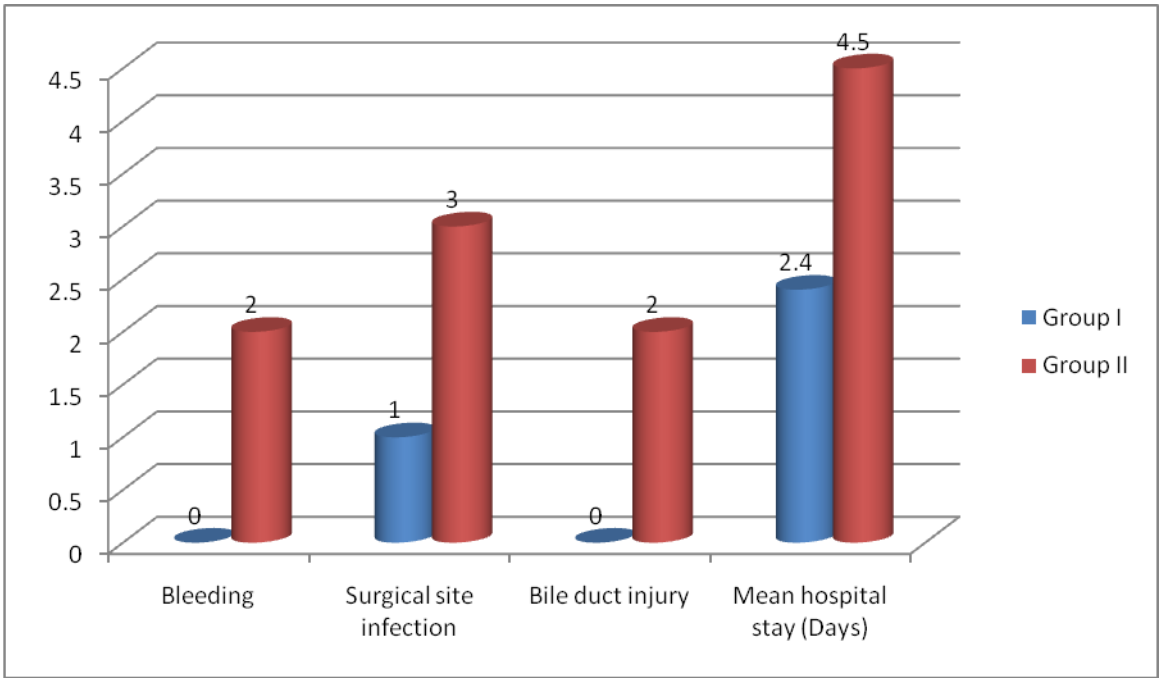
Table I shoes that out of 112 patients, group I were treated with laproscopic cholecystectomy and group II with open cholecystectomy.

Table II: Comparison of outcome of treatment

Complications	Group I	Group II	P value
Bleeding	0	2	0.01
Surgical site infection	1	3	0.02
Bile duct injury	0	2	0.01
Mean hospital stay (Days)	2.4	4.5	0.05

Table I, Graph I shows that 2 patients in group II had bleeding. Surgical site infection was seen in 1 in group I and 3 in group II, bile duct injury was evident in 2 in group II. Mean hospital stay in group I was 2.4 days and in group II was 4.5 days. The difference was significant (P< 0.05).

Graph I: Comparison of outcome of treatment



DISCUSSION

Laparoscopic cholecystectomy is now considered more popular than traditional procedure. Most of the progress in the field of GB disease and treatment has been made in the last century but gallstone and their sequelae date back to 1085 -945 BC have been discovered in the mummy of amen. Gall stone disease is one of the most common and most expensive conditions to treat of all digestive disorders

requiring admission to hospital. Of all gallstones found during cholecystectomy, cholesterol gallstones account for 80-90%. Cholesterol gallstones are primarily made up of cholesterol crystals (70%) which are held together in an organic matrix of glycoproteins, calcium salts, and bile pigments. They could be present either singly or multiply, in various sizes, shapes and surfaces.[5] The present study was conducted to compare laparoscopic and open cholecystectomy.

In present study, out of 112 patients, group I were treated with laproscopic cholecystectomy and group II with open cholecystectomy. Chok et al[6] analyzed the conversion rate of laparoscopic cholecystectomy to open cholecystectomy. Out of the 100 cases 98 got successfully operated by laparoscopic cholecystectomy. Only 2 cases out of 100 got converted from laparoscopic to open cholecystectomy and they belonged to grade E with empyema.

We found that 2 patients in group II had bleeding. Surgical site infection was seen in 1 in group I and 3 in group II, bile duct injury was evident in 2 in group II. Mean hospital stay in group I was 2.4 days and in group II was 4.5 days. Narwade et al[7] conducted a retrospective cohort study on 1043 patients. The overall morbidity of the EC group (29.9%) was significantly lower than the DC group (38.7%). EC demonstrated significantly better results than DC in days of hospital stay (8.9 versus 15.8 days), readmission percentage (6.8% versus 21.9%), and percentage of ICU admission (2.3% versus 7.8%), which can result in reducing the direct costs. The patients who benefited most from an EC were those with a Charlson index > 3.

Attwood et al[8] found that patients undergoing elective laparoscopic cholecystectomy (LC) have an overnight stay due to post-operative pain, nausea and vomiting. Day-case surgery, while reducing the financial burden on the health care system, may offer patients more comfort by being convalescence in their environment. Day-case elective LC appeared to be safe in select patient groups with an unanticipated admission rate of 3.4% to 24.3%. This is typically due to nausea and vomiting, pain, and conversion to an open procedure. In our study, we widen the selection criteria to include patients older than 70 years, with controlled diabetes and hypertension cases and patient wish. In our study, we found that DSLC is feasible, safe and acceptable in the majority of patients. No patient refused DSLC once offered, 88% discharged from the day surgery unit after LC, only 0.36% needed readmission, and 97.36% were satisfied with the procedure.

CONCLUSION

Authors found laparoscopic cholecystectomy better as compared to open cholecystectomy.

REFERENCES

1. Abu-Eshy SA, Mahfouz AA, Badr A, El Gamal MN, Al-Shehri MY, Salati MI, et al. Prevalence and risk factors of gallstone disease in a high altitude Saudi population. East Mediterr Health J. 2007;13(4):794–802.
2. Shaffer EA. Gallstone disease: Epidemiology of gallbladder stone disease. Best Pract Res Clin Gastroenterol. 2006; 20(6):981–996.
3. Tiryaki C, Bayhan Z, Kargi E, Alponat A. Ambulatory laparoscopic cholecystectomy: A single center experience. Journal of Minimal Access Surgery. 2016; 12(1):47-53.
4. Ghnnam W, Malek J, Shebl E, Elbeshry T, Ibrahim A. Rate of conversion and complications of laparoscopic cholecystectomy in a tertiary care center in Saudi Arabia. Annals of Saudi Medicine. 2010; 30(2):145-148.
5. Bal S, Reddy L, Parshad R, Guleria R, Kashyap L. Feasibility and safety of day care laparoscopic cholecystectomy in a developing country. Postgrad Med J. 2003; 79(931):284–288.
6. Chok KS, Yuen WK, Lau H, Lee F, Fan ST. Outpatient laparoscopic cholecystectomy in Hong Kong Chinese –an outcome analysis. Asian J Surg 2004; 27:313-6.
7. Narwade N, Shaikh T, Jain R, Khan N, Ghosalkar M, Ansari S, et al. The study of laparoscopic cholecystectomy and its conversion to open cholecystectomy: analysis of 100 cases in Navi Mumbai, India. Int J Res Med Sci 2015;3: 3586-90.
8. Attwood SE, Hill AD, Mealy K, Stephens RB. A prospective comparison of laparoscopic cholecystectomy versus open cholecystectomy. Ann R Coll surg Engl. 1992;74(6):397-400.

Source of support: Nil

Conflict of interest: None declared