Original Article

Laparoscopic Cholecystectomy: An Experience of 550 cases at Sukkur

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ABSTRACT

Objective: To see the results and complication rate of Laparoscopic cholecystectomy at Sukkur
Study Design: Prospective Study.
Place and Duration of Study: This study was conducted at Ghulam Mohammad Mahar Medical College Hospital Sukkur and Sukkur Blood Bank Hospital from December 2004 to December 2009.
Materials and Methods: the study comprises of 550 case. All were admitted from OPD of both hospitals. All patients had routine investigations, Liver function tests and ultrasound abdomen. The patients who underwent laparoscopic cholecystectomy whether successful or converted were included in study. The procedure was carried out by standard four port technique. Clinical examination, investigations, operative time, postoperative complications, reasons for conversion and hospital stay were recorded on proforma and results were drawn.
Results; The male patients were100 and female patient were 450, male to female ratio was 1:4.5. Mean age of patients were 47.63 years ranging from 25years to 75years there were 127 (23.09%) obese, 72 (13.90) controlled hypertensive. Anatomical obstacle noted in 40 (7.27%) patients. Adhesions in 52 (9.45%) and acute cholecystitis in 22 (3.75%) patients. Overall conversion rate was 4%. In total of 22 patients which were converted, causes were slipped clip 2, hemorrhage from falciform ligament 1, severe hemorrhage 3, unclear anatomy 6, common bile duct injury 4, intra abdominal adhesions 4, gangrene gall bladder 1, and advance carcinoma 1. Mean hospital stay was 1.8, ranges from 1 day to 10 days.
Conclusion; Laparoscopic cholecystectomy has a gold standard procedure. It is safe and effective and becoming cost effective day by day. Incidence of complication is low, morbidity and mortality are low. The pain free postoperative period and early ambulation lead to saving of value able working hours.
Key Words: Gall stones, laparoscopic cholecystectomy

INTRODUCTION

The introduction of laparoscopic cholecystectomy is an important milestone in surgical practice and superior to open cholecystectomy and heralds the development of further minimally invasive techniques. Since it's debut by Robert mourret in 1987, laparoscopic cholecystectomy has emerged as gold standard as regards laparoscopic surgery. The advantage of laparoscopic approach is the deduction of trauma of access, without compromise to exposure of operative field. This enables accelerated patient recovery and reduction of wound related complications. In Pakistan cholecystectomy is the most common elective abdominal operation with over 50,000 operations performed annually[1,2]. It was only after the event of laparoscopic cholecystectomy performed by Mouret et al 1987 in France, that general surgeon suddenly became interested in application of laparoscopy[1-4].

On one hand it offers remarkable advantage of minimal trauma in surgical access to gall Bladder, much better pain relief after surgery, leading to early ambulation and on other hand consequent reduction in operative and reparatory complication, and thus early return to work. Recently some refined studies have indicate that the metabolic response to operative trauma immunosuppression is much less in Laparoscopic cholecystectomy with advantage for both patient and surgeons[5, 6]. Ability to provide high quality and cost effective care has made ambulatory surgery one of the fastest growing era in the health care system all over the world [7].

Through initially, there was some relative contraindication, but with experience and improvement of equipment, there is contraindication. How ever in obese, abscure anatomy, adhension, hemorrhage damage to common bile duct and in acute cases, surgeon should be careful and willing to convert if necessary[6-8]. In our study, main focuses was a complication of laparoscopic surgery and its comparison with literature and thus highlight the safety and effectiveness of procedure.

MATERIALS AND METHODS

Over a period of 5 years from December 2004 to Dcember 2009, 550 laparoscopic cholecystectomies were carried out at Ghulam Muhammad Mahar Medical College Hospital Sukkur & Sukkur Blood Bank Hospital Sukkur. All patients had routine investigations, liver function tests and ultrasound of abdomen.

The patients which were selected for laparoscopic cholecystectomy, were included in the study. Those patients which were unfit due to aesthesia or any other problem and did not opted for laparoscopic cholecystectomy, were excluded from the study. The procedure was carried out by standard four port technique.

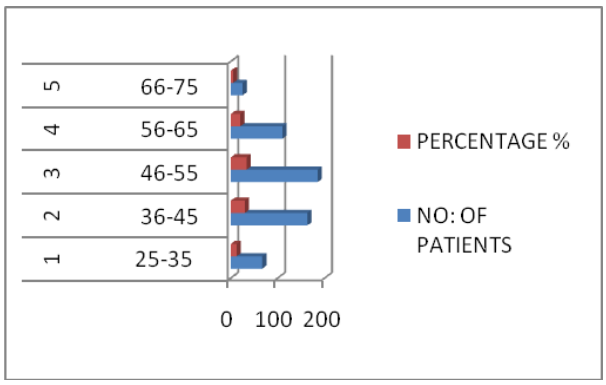
Clinical examination investigations, operative time, postoperative complication, reasons for conversion if converted and hospital stay were recorded on proforma and result were drawn.

RESULTS

The male patients were 100 and female patient were 450, male to female ratio was 1:4.5. Mean age of patients were 47.63 years ranging from 25years to 75years (Table No.1) there were 127 (23.09%) obese, 72 (13.90) controlled hypertensive. Anatomical obstacle noted in 40 (7.27%) patients. Adhesions in 52 (9.45%) and acute cholecystitis in 22 (3.75%) patients.

Table No.1: Age distribution in 550 cases

Sr. No.	Age of patients	No: of Patients	Percentage %
1	25-35	67	12.18
2	36-45	163	29.72
3	46-55	185	33.56
4	56-65	110	20
5	66-75	25	4.54



Tables No.2: Reasons of Conversion in 550 cases

Sr. No:	Causes	No: of Cases	Percentage %
1	Severe hemorrhage	6	1.10
2	Unclear Anatomy	6	1.10
3	CBD injury	4	0.73
4	Intra abdominal adhesions	4	0.73
5	Gangrenous gallbladder	1	0.17
6	Advance carcinoma	1	0.17

Overall conversion rate was 4%. In total of 22 patients which were converted, causes were slipped clip 2, hemorrhage from falciform ligament 1, severe hemorrhage 3, unclear anatomy 6, common bile duct injury 4, intra abdominal adhesions 4, gangrene gall bladder 1, and advance carcinoma 1 (Table No.2). Mean hospital stay was 1.8, ranging from 1 day to 10 day (Table No.3).

Reasons of Conversion in 550 cases

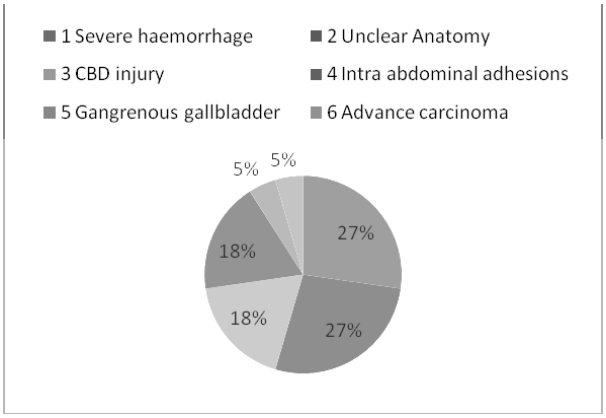
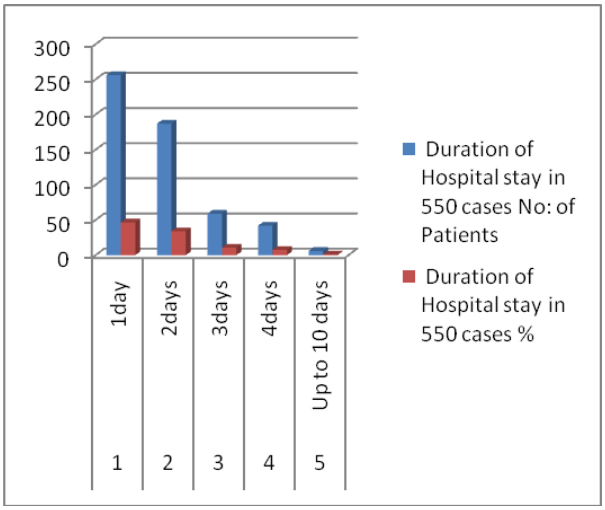


Table No.3: Duration of Hospital stay in 550 cases

Sr. No.	Duration	No: of Patients	Percentage %
1	1day	256	46.55
2	2days	187	34.05
3	3days	59	10.72
4	4days	42	7.59
5	Up to 10 days	6	1.09



DISCUSSION

Laparoscopic cholecystectomy has emerged as gold standard for laparoscopic procedures. The techniques are rapidly replacing traditional procedure. It is procedure of choice even in most difficult situations associated with complicated gall stone disease and on

the other hand it saves patients from ugly scar. There is less pain, less hospital stay and thus fewer burdens on hospital resources and saving of working hour2, 5, 7.initially there were many contra-indications for laparoscopic cholecystectomy but with increasing experience, there is no absolute contraindication. How ever in difficult cases, surgeon should always maintain low threshold for conversion into open procedure. The indication for conversion are controlled bleeding, injury to bile duct, inability to demonstrate the anatomy of region and severe adhesions [8-10]

In our study male to female ratio is 1:4.5. in various studies world wide the ratio varies from 1:3 to 1:11.5[11,12]. How ever predominance of female is obvious due to obvious reasons. In our study mean age is 47.63, while in literature it ranges from 40.5% to 52% [13,14]. The figures from the areas where early marriage occur mean age group is low. Our over all conversion rate is 4% while literature shows variation from 1.2% to 14% in different studies9-13. Common causes of conversion were unclear anatomy 6 (1.10%), intra-abdominal adhesion 4 (0.73%) how ever conversion rate in acute gall bladder disease was higher i-e acute cholecystitis 2 out of 22 (9.09%). In literature conversion rate in acute gall bladder disease has been reported up to 45% also[15,16].

Mean hospital stay in our study is 1.8 days while generally it ranges from 1.5 -3days in different series from literatures [17,18]. There was no mortality in our study, while in literature mortality reported ranges.

From 0% to 1.7%. Devil at al (1993) reports 0.04% mortality rate in 77604 patients from 4292 different centres13-15.There for we conclude that laparoscopic cholecystectomy has a gold standard procedure. It is safe and effective a becoming cost effective day by day. Incidence of complication is very low even less then open cholecystectomy. Morbidity and mortality are low. There is no absolute contra-indication for this procedure; however surgeon should have low threshold conversion especially in acute cholecystitis, bile duct injury, abscure anatomy, unmanageable adhesions and severe hemorrhage**.**

CONCLUSION

Laparoscopic cholecystectomy has a gold standard procedure. It is safe and effective and becoming cost effective day by day. Incidence of complication is low, morbidity and mortality are low. The pain free postoperative period and early ambulation lead to saving of value able working hours.

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