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Original Research Article

Retrospective Analysis of Complications Occurring in Patients Undergoing Laparoscopic Cholecystectomy: An Institutional Based Study

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ABSTRACT

Background: Laparoscopic cholecystectomy (LC) has turned into treatment of choice in treating patients with various symptomatic biliary diseases. Approximately seventy five percent of all the cholecystectomy cases performed are laparoscopic in nature. Hence; we planned the present study to assess the incidence of complications associated with LC.

Materials & Methods: The present study included retrospective assessment of incidence of complications associated with LC procedures. A total of 300 cases of LC were included, among which 60 cases were of males and remaining were females. Assessment of intra-operative haemorrhagic complications and bile duct injury cases was done. File records of all the patients were compiled and analysed by SPSS software.

Results: It was observed that intra-operative haemorrhage and bile duct injury occurred in 10 cases and 2 cases respectively out of total 300 cases included in the present study. Bleeding from hepatic artery and greater omentum was present in one case each.

Conclusion: A surgeon should perform the laparoscopic procedures very carefully for better prognostic results and should have proper knowledge of complications that can occur, so that proper handling of these complications could be done.

Key words: Cholecystectomy, Complications, Laparoscopic.

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INTRODUCTION

It has been over 2 decades since McKernan played out the principal laparoscopic cholecystectomy (LC) in North America and 17 years since LC was considered equal to open cholecystectomy (OC) in an accord explanation by the National Institutes of Health (NIH). Today, LC has turned into the methodology of decision for symptomatic biliary illness.[1-3] Roughly three- fourth of all cholecystectomies are performed laparoscopically, and change to the open methodology ranges from 5% to 10% across the country. The NIH proposed that the result of LCs would be enormously affected by specialist particular elements, for example, preparing, background, aptitude and judgment.[4] What's more, various patient and malady related components, for example, male sex, corpulence, increasing age, earlier stomach surgery, intense cholecystitis, choledocholithiasis, and irregular life structures have been accounted for as critical hazard elements for change to the open methodology.[5-7] Hence; we planned the present study to assess the incidence of complications associated with LC.

MATERIALS & METHODS

The present study was conducted in the department of general surgery, Rama Medical College Hospital & Research Centre, Hapur, Uttar Pradesh (India) and included retrospective assessment of incidence of complications associated with LC procedures. Ethical approval was taken from institutional ethical committee before the starting of the study. A total of 300 cases of laparoscopic cholecystectomy were analysed during the study period. Among these 300 cases, 60 cases were of males and remaining were females. All the patients aged between 18 to 75 years of age. Selective laparoscopic cholangiography was performed in all the patients for the intra- surgical exploration of main bile duct. Assessment of following complications was done:

- Haemorrhage
- Injury to the bile duct.

File records of all the patients were compiled and analysed by SPSS software.

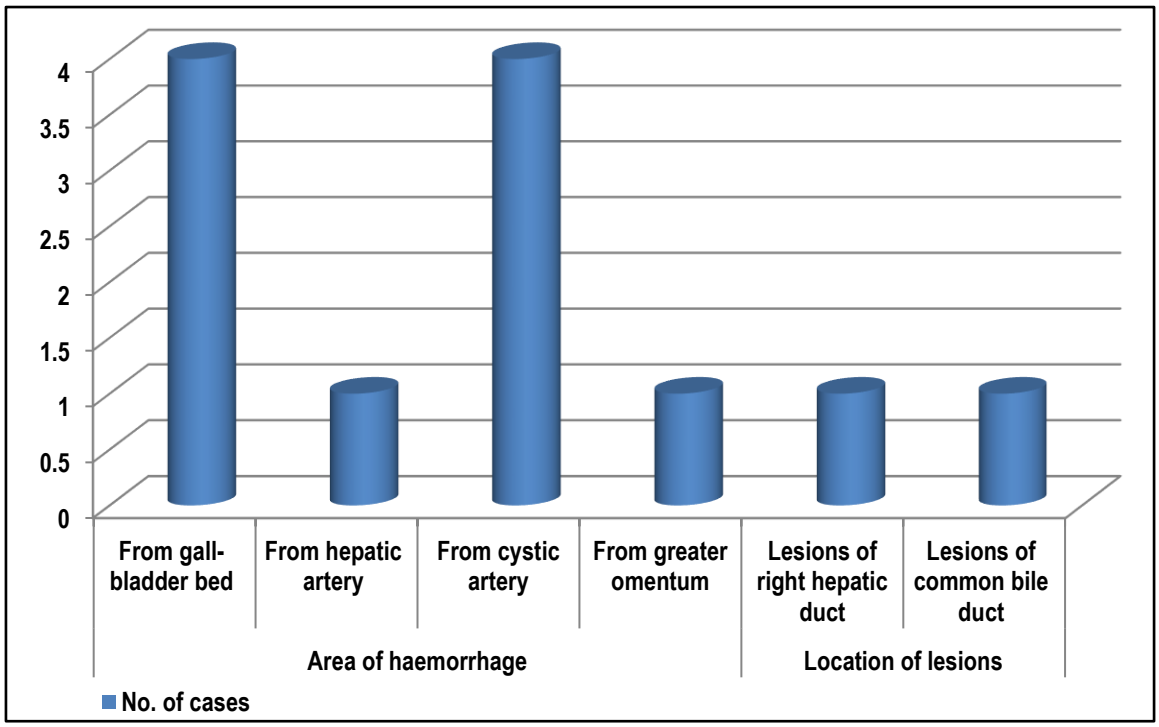
Table 1: Incidence of intra-operative haemorrhage: 10 cases out of 300

Area of haemorrhage	Number of cases (10)	Percentage of cases
From gall- bladder bed	4	1.3
From hepatic artery	1	0.3
From cystic artery	4	1.3
From greater omentum	1	0.3

Table 2: Incidence of bile duct injuries: 2 cases out of 300 cases

Location of lesions	Number of lesions	Percentage of lesions
Lesions of right hepatic duct	1	0.3
Lesions of common bile duct	1	0.3

Graph 1: Descriptive values of number of cases with complications



RESULTS

Incidence of intra-operative haemorrhage was found to be 10 cases out of total 300 cases included in the present study. 4 cases each showed intra- operative haemorrhage due to bleeding from gall- bladder bed and cystic artery respectively (Table 1). Bleeding from hepatic artery and greater omentum was present in one case each. Only two cases out of all cases included in the present study showed presence of bile duct injury. One lesion occurred in right hepatic duct and one lesion occurred in common bile duct (Table 2, Graph 1).

DISCUSSION

Learning of applicable life systems is vital for the protected execution of any agent technique. In particular, with regards to a cholecystectomy, it has been perceived since long that distortion of typical life systems and in addition the nearness of anatomical varieties add to the event of major postoperative intricacies particularly biliary injuries.[9-11] Such wounds thus can cause huge bleakness and periodically even mortality. They are likewise one of the commonest reasons for prosecution against stomach specialists in the created world. There is currently a decent lot of information to recommend that the acknowledgment of laparoscopic cholecystectomy (LC) as the standard strategy has prompted an expansion in bile duct injuries.[12] Hence; we planned the present study to assess the incidence of complications associated with LC.

In the present study, we observed that haemorrhage and bile duct injury were present in 10 and 2 cases respectively (Table 1, Table 2). Duca S et al surveyed the occurrence of intricacies related with Laparoscopic cholecystectomy (LCs) technique. In the course of the most recent 9 years 9542 LCs have been performed at the creator's surgical focus, of which 13.9% were done for intense cholecystitis, 38.4% in obese patients and 7.6% in patients more than 65 years of age. The primary agent occurrences experienced were discharge (224 cases, 2.3%), iatrogenic gallbladder perforation (1517 cases, 15.9%) and common bile duct injury (CBD) wounds (17 cases, 0.1%). Transformation to open operation was vital in 184 patients (1.9%), for the most part because of darken life systems because of intense aggravation. The principle postoperative complexities were bile spillage (54 cases), discharge (15 cases), sub-hepatic sore (10 cases) and held bile pipe stones (11 cases). Ten passings were recorded

(0.1%). The greater part of the postoperative episodes was explained by laparoscopic implies. Among patients with postoperative complexities 28.9% required revisional surgery. In 42.2% of cases insignificantly obtrusive strategies were utilized effectively: 15 laparoscopic re-operations and 22 endoscopic sphincterotomies. The great outcomes acquired enabled them to prescribe these negligibly intrusive strategies in suitable patients.[13]

Duca S et al evaluated inconveniences related with laparoscopic cholecystectomies. In the course of the most recent 9 years 9542 laparoscopic cholecystectomies have been performed, of which 13.9% were done for acute cholecystitis, 38.4% in patients with obesity and 7.6% in patients more than 65 years of age. The principle postoperative inconveniences were bile spillage and choleperitoneum (54 cases), discharge (15 cases), subhepatic sore (10 cases) and held bile pipe stones (11 cases). Exemplary re-mediations were drilled in 28.8% of cases with entanglements. Smaller than usual obtrusive strategies were utilized as a part of 42.2% of cases with difficulties: laparoscopic re-mediations (15 cases) for choleperitoneum, haemoperitoneum and subhepatic canker and endoscopic sphincterotomy (22 cases) for delayed bile spill on subhepatic deplete and for early analyzed remainder lithiasis of the normal bile pipe. All cases recuperated. Another 26 patients were dealt with minimalistically. With an exact analysis and a decent sign, the smaller than expected intrusive treatment of entanglements was finished with great outcomes. 16 laparoscopic re-operations and 22 endoscopic sphyncterotomies were performed.[14] Duca S et al evaluated the episodes and postoperative inconveniences of laparoscopic cholecystectomy (LC) in view of a progression of 8002 patients who experienced the method amid a time of seven years. Transformation rate was 2.02% (161 cases) and 6 (0.07%) deaths were experienced. Intraoperative drain (2.43%) could be controlled by intraoperative haemostasis in everything except 8 patients which required transformation. Injuries of the bile channels happened in 16 patients (0.2%), 13 of them being distinguished amid the operation and comprehended by change or laparoscopic choledochorraphy. Postoperative inconveniences required re-mediation in 45 patients: 11 for bile spill, 19 for choleperitoneum, 6 for drain, 4 for subhepatic abscesses and 5 for leftover CBD lithiasis. There was 1 cut of the Douglas pouch for a situation of choleperitoneum, 7 laparoscopic re-mediations and 25 open surgery re-intercessions. EST unraveled postoperative bile spills (from the gallbladder bed) effectively in 7 cases and remainder CBD lithiasis (5 cases). Along these lines, 44% of the cases were dealt with by negligibly intrusive means (laparoscopic re-intercessions or endoscopic systems). Most of the occurrences and postoperative intricacies were connected to the nearness of an intense cholecystitis and were halfway because of some specialized cut-off points of the laparoscopic strategy of the gallbladder bed peritonisation. The negligibly intrusive treatment of postoperative complexities, was extremely effective and offered ideal healing conditions.[15]

CONCLUSION

From the above results, the authors concluded that for better post-operative results, surgeon should perform the laparoscopic procedures very carefully and should have proper knowledge of complications that can occur, so that proper handling of these complications could be done.

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