



A STUDY OF IMPORTANCE OF DRAIN IN LAPROSCOPIC CHOLECYSTECTOMY IN CASES OF CALCULUS CHOLECYSTITIS

General Surgery

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KEYWORDS

INTRODUCTION:

Laparoscopic cholecystectomy is the gold standard for gall stone disease now adays. With better patient satisfaction and a shorter hospital stay, laparoscopic cholecystectomy has become the method of choice. However, this change in practice from open surgery has led to different problems such as biliary tract injuries and intraoperative spillage of stones and bile. The first complication, though serious, can be minimised with experience, supervision, and good training, whereas the latter complication of spilled gall stones with bile is often ignored. Gall stone with bile spillage during laparoscopic cholecystectomy is common. Studies show that the incidence of spilled gallstones during laparoscopic cholecystectomy accounts for 6 to 40% of procedures performed.

AIM:

The aim of the study was to evaluate the importance of drain in patients undergone cholecystectomy.

MATERIALS AND METHODS:

Study was carried out in the Department of General Surgery, NMCH PATNA. Cases were divided randomly into two equal groups. Group 1 containing 20 cases with drain placed and group 2 containing 20 cases without drainage between February 2022 to February 2023. Subjects were observed for postoperative morbidity in the form of pain—incidence and severity, duration of postoperative hospital stay, analgesia requirement, drain site infection and nausea and vomiting.

Patients were operated by the standard four port technique. All patients wew operated in general anesthesia and in group 1 patients drains were placed in subhepatic space and in group 2 patients no drains were placed.

Pain was scales on the basis of visual analoque scale and other factors were also taken in consideration.

RESULTS AND DISCUSSION-

Traditionally, drains in Laproscopic cholecystectomy are used for the early detection of bile leaks and any unsuspected hemorrhage and to evacuate abdominal fluid collections without the need for more invasive procedures. A large retrospective series reported the following main reasons to insert a drain after open cholecystectomy: (1) operation for cholecystitis, (2) intraoperative bile spillage, and (3) excessive blood loss during the operation . However, experimental studies showed that when a drain is inserted in the peritoneal cavity that contains no fluids, it is quickly surrounded by omentum and completely occluded within 48 h. Bile leak and bile duct injury are the two most feared complications of Laproscopic cholecystectomy for acute cholecystitis. The reported incidence for bile leak after LC for acute cholecystitis is approximately 2–3 %. In my present study pain in right hypochondrium was the most common symptom. pain in port site was almost similar in both groups. Fever was more common in group 2. Nausea and vomiting was common in both groups.

	GROUP 1	GROUP 2
Pain in right hypochondrium	18	17
Pain at port site	12	13
Fever	6	5
Nausea and vomitting	16	15

In this study we also taken into consideration intra operative adhesions and operative timing.

In this study it was found that intraopearive adhesions during the operation requires the need of the surgeon to put drain in it. In group 1 patients we placed drain in 13 patients in which adhesions were present but only 3 patients require drain in group 2 patients.

In this study operative time was more in cases where we place drain in the patients which was statistacally significant ($p < 0.005$).

According to our study patients with drain complain of more post operative pain as compared to patients without drain. ($p < 0.005$). Hospital stay was also more in patients with drain . 20 percent patients of drain group has hospital stay more than eleven days but no patients without drain group were satyed more than 11 days. In contrast most of the patients that is 75 percent patients were discharged between 1-3 days.

	Post operative pain			Postoperative hospital stay		
	mild	mod	severe	1-3 days	4-7 days	>11 days
GROUP-1	0	15	5	1	15	4
GROUP-2	6	14	0	15	5	0

CONCLUSION

In my study, results indicate that routine drainage of gallbladder bed after elective laparoscopic cholecystectomy cannot be benefecial. Drainage causes more postoperative pain, prolongs the operative time, increase drain site pain and infection, wound infection and prolongs the hospital stay. However, in selected patients with potential bile leak e.g. imperfect closure of cystic duct, bile staining of liver bed suggesting the possibility of missed accessory duct, difficult cholecystectomy due to inflamed gallbladder and/or adhesions, abnormal calot's triangle, drainage can be beneficial .Difficult laparoscopic cholecystectomy can be judge by pre-operative criteria of high WBC count, palpable gall bladder, previous attack of acute cholecystitis, previous abdominal surgery and USG findings of thickened gallbladder wall impacted stone at neck and pericholecytic collection and intra-operative criteria of inflamed gallbladder, intra- peritoneal and peri-GB adhesions, structural anomalies and abnormal calot's triangle. Patients with absent of such criteria's can be operated with three port laparoscopic cholecystectomy, without drain and can be discharged within 24-48 hours. Final conclusion can be drawn by doing this study for operation done by larger sample size and longer follow-up.

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