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Original Research Paper

General Surgery

A STUDY OF MINIMAL INVASIVE OPEN CHOLYCYSTECTOMY VS LAP CYSTECTOMY

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ABSTRACT

Most of the publications in the last two decades have been dominated by lap cholecystectomy. This study and presentation of over 15 years is to analyse and prove that minimal invasive open cholycystectomy is equally effective in all prospects compared to lap cystectomy

KEYWORDS : minimal invasive open cholycystectomy, lap cystectomy.

INTRODUCTION:

Cholecystectomy is one of the most commonly performed operations by competent general surgeons. Last two decades have witnessed huge growth in minimally invasive laparoscopic cholecystectomy. Most of the publications in the last two decades have been dominated by lap cholecystectomy. This study and presentation of over 15 years is to analyse and prove that minimal invasive open cholycystectomy is equally effective in all prospects compared to lap cystectomy[1,2].

With laparoscopic cholecystectomy, you may return to work sooner, have less pain after surgery, and have a shorter hospital stay and a shorter recovery time. Surgery to remove the gallbladder with a laparoscope does not require that the muscles of your abdomen be cut, as they are in open surgery3,4. The incision is much smaller, which makes recovery go quicker. With laparoscopic cholecystectomy, you probably will only have to stay in the hospital for a few hours or overnight. With open cholecystectomy, you would have to stay in the hospital for about five days. Because the incisions are smaller with laparoscopic cholecystectomy, there isn't as much pain after this operation as after open cholecystectomy. Minimal invasive open cholecystectomy is a very safe procedure which can be conducted in small cities and towns where the Patients are poor and no laproscoic instruments in govt hospitals and majority of private hospitals .as we have seen in this large series which is conducted across many small cities and towns procedure is very safe with no mortality and with a very few complications. The procedure does not require any special instruments, patients will have very less post-operative pain,very less hospital stay and go back to work early[5].

AIMS AND OBJECTIVES:

To study the minimal invasive open cholycystectomy Vs lap cystectomy.

MATERIALS AND METHODS

Data of patients who were operated were from 2001 to 2016. All the operations were performed by me in various hospitals mainly in small cities and towns in Karnataka ,south India .Data was prospectively collected. Adequate work up was done preoperatively for the patients. Majority of the operations were performed under regional anaesthesia with a senior anaesthetist. Only the Patients who underwent cholecystectomy through a small right paramedian small incision were included in the study.2020 patients were females and 570 were males. Youngest patient was of 14 years and oldest patient was 82 years. Adequate preoperative work up was done for the patients. Most of the surgeries were performed under regional anaesthesia which gives an excellent relaxation. Nasogastric tube was inserted for a few patients preoperatively. Patient was put in a mild head up with a slight left lateral tilt. In all the cases right paramedian incision was taken in the region of the gallbladder was taken measuring about 3 to 4cms, muscles were split and peritoneum was opened. In a few fat patients the incision had to be extended by another 0.5 to 1 cm accordingly. After entering the abdomen the operative table was further tilted accordingly whenever the need arose giving a good exposure to the operative area of the gall bladder. Gallbladder was identified and decompressed (using an aspiration needle)whenever required specially making it convenient to hold the gallbladder and also to remove the specimen after surgery .Retrograde cholecystectomy was done in almost all the cases. The plane between the gallbladder and liver was created with a sharp instrument either cautery or scissors creating a plane to separate gallbladder from its bed, and once the plane was created blunt dissection was performed to further dissect and reach the cystic area.only a few case required separate ligation of cystic artery,in most of the cases cystic duct and the artery was lighted together using a right angled artery .care was taken to milk the stones specially in the region of the neck and cystic duct of gallbladder before ligating the cystic duct.Technical difficulty was faced in a few cases which were tackled accordingly using clip applicator in two of the cases cystic duct got retracted and attempt to identify and clamp was in vain , for which bigger sized drain was kept before closure. Few cases stones were picked up from the distil cut end of the cystic duct after its ligation. In a few cases of chronic cholecystitis plane between the liver and gallbladder had to be forcefully created sometimes puncturing the gallbladder .In one case which had portal hypertension cholecystotomy was done and stones picked out. partial cholecystectomy was performed (another senior surgeon was present with me during this procedure. During 4 cases cystic artery got retracted, it was tackled accordingly. For majority of cases a small drain tube was kept for a day or two, for fewer cases bigger drain tube was kept and left for a longer time for one case which had a anomaly hepatic artery got damaged and was tackled with the help of another surgeon for two cases biliary tract injury occurred and both of which were tackled in primary setting-T tube was put for one and choledochoduodenostomy was performed for another. There was no mortality seen for any patient in the entire series. Most of the patients were mobilised and started on orals the very next day and discharged on second post operative day, a few were discharged the very next day.very few required prolonged hospital stay specially the ones with post operative complications.Post operative complications include wound infection for cases specially with empyema ,biliary leak in a very few patients most of it was from the liver bed ,two patients required ERCP with stunting due to cystic duct blow out probably due to passing of sludge.jaundice was noticed in a few patients which was closely monitored most of which were tackled conservatively only two patients required ERCP and spincterectomy. Haemorrhage was noticed in a few cases almost all of them got settled with conservative treatment except for one which required reexploration followed by embolization and finally reexploration after 15 days before it finally got satelled. As the incision was longitudinal and muscle splitting very little post operative pain was appreciated ,hence most of them were mobilised the next day itself and discharged on the second post operative day.sutures were removed after 8-10 days and most of the patients got back to work within 15 days.

RESULTS:

From 2001 to 2016 we performed about 2590 cases of mini

laparotomy open cholycystectomy which included 559 cases of acute cholecystitis ,42 cases of empyema gall bladder,18 cases of gall bladder polyps, 970 cases of chronic cholecystitis,1case of Gallstone with portal hypertension and 1case of gallstones with CBD stone. 2021 women and 570 were men. There were no separate tools except for small dever's retractor and a good anaesthetist to get a very good relaxation which was most essential for the procedure .Most of the procedures are carried out through 3 to 4 cm longitudinal right paramedian incision located exactly in the gallbladder area with a muscle splitting technique.

The mean-time of operation what about 40+ or -15 minutes.

The conversion to slightly bigger incision for about 4 to 6 cm was seen in very less patients(3%).

Intra operative complications occurred in 9 cases(2 cases of biliary tract injury 4cases of cystic artery haemorrhage 2 cases with hepatic artery injury and 1 case of liver bed haemorrhage).

In one case Of cholelithiasis with portal hypertension and epigastric hernia cholecystectomy was abandoned and only a hernioplasty was performed.

Post-operative complications developed in 4% of the cases. All the patients required post-operative analgesics, many patients required abdominal drain interoperatively.

Significantly higher rates of post-operative complications were noticed in acute infected cases . In almost all the cases retrograde cholecystectomy was done.

There was no mortality in the entire series of study.

DISCUSSION:

This surgery is very simple to perform but has to be performed with at most care, with a very good Anastasia followed up with good post-operative care. The total numbers of patients with complications are high. Total complication proportions in the LC vs. SIC comparison are 24.3% and 21.2% respectively including intra-operative gallbladder perforations, which are generally not considered a complication[6,7]. Excluding gallbladder perforations decreases total complication proportions to 15.6% and 16.4% respectively. These percentages are still higher than figures (up to 5%) known from other reviews including non-randomized series. Such studies represent lower levels of evidence[8]. One has to assume that especially interested and skilled surgeons conducted the trials and carried out the interventions. Everyday clinical practice and complication rates ought to be followed through clinical databases and compared with benchmark values. The situation in the real world may therefore even be worse. The complication proportions in the other two comparisons (SIC vs. OC and LC vs. OC) are substantially lower compared with the proportions in the LC vs. SIC comparison. Probably, differences in methodological quality of the trials play a role. As results from low-bias risk trials are considered more reliable, we believe that the proportions in the LC vs. SIC comparison are closer to the truth.

CONCLUSION

This is an excellent alternative to laparoscopic cholecystectomy .

REFERENCES:

1. Legorreta AP, Silber JH, Costantino GN, Kobylinski RW, Zatz SL. Increased cholecystectomy rate after the introduction of laparoscopic cholecystectomy. JAMA 1993; 270: 1429–32.
2. Steiner CA, Bass EB, Talamini MA, Pitt HA, Steinberg EP. Surgical rates and operative mortality for open and laparoscopic cholecystectomy in Maryland. N Engl J Med 1994; 330: 403– 8.
3. Olsen DO. Laparoscopic cholecystectomy. Am J Surg 1991; 161: 339–44.
4. NIH Consensus conference. Gallstones and laparoscopic cholecystectomy. JAMA 1993; 269: 1018–24.
5. Roslyn JJ, Binns GS, Hughes EF, Saunders-Kirkwood K, Zinner MJ, Cates JA. Open cholecystectomy. A contemporary analysis of 42,474 patients. Ann Surg 1993; 218: 129–37.
6. Langenbuch C. Ein Fall von Exstirpation der Gallenblase wegen chonischer Cholelithiasis: Heilung. Berliner Klin Wochenschr 1882; 19: 725–7.
7. Dubois F, Berthelot B. [Cholecystectomy through minimal incision (author's transl)] Cholecystectomie par mini-laparotomie. Nouv Presse Med 1982; 11: 1139–41.
8. Goco IR, Chambers LG. "Mini-cholecystectomy" and operative cholangiography. A means of cost containment. Am Surg 1983; 49: 143–5.