

Comparative Study of the Two Port Vs Four Port Laparoscopic Cholecystectomy

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Introduction

- Laparoscopic Cholecystectomy (LC) is the treatment of choice for gall bladder stone disease.
- The first, laparoscopic Cholecystectomy is done by Phillip mouret in 1987 and then the term of minimally invasive surgery was born in the Medical Literature.
- There are many changes in the techniques of operation and type of instrument
- Traditional L.C is done by 4 port techniques but after that a new technique developed by using the smaller size of instrument (miniaturized instrument) or by reducing the number of ports changes in surgical techniques
- As like As the other things is never easily accepted
- In this article, I am going to compare between 2 ports L.C and conventional 4 ports. Techniques.

Conventional 4 port Laparoscopic Cholecystectomy (4 ports L.C)

The patient is operated in supine head up position. Surgery may be stand on the left side of patient (American type)

- Four port is insert into peritoneal cavity:
- One 11mm optical port through the umbilical area 10mm telescope 30 degree is routinely used
- 11mm operating port on the epigastria area
- 5mm operating port on the right hypochondria
- 5mm assistant port on the right iliac fossa
- Usually the fundus of gall bladder is grasped and flipped upward then dissection of the cystic pedicle is begun. Cystic duct and artery are ligated and gallbladder
- Separated from the liver bed and extracted through the 11mm operating part. There is some controversy about intraoperative cholangiography perforation- of gallbladder during the operative. Is common complication- and it is occurred in 15% of case it is important that all of stones must be retrieved.

Two ports Laparoscopic Cholecystectomy (2 ports L.C)

Two ports laparoscopic Cholecystectomy has been known to be feasible and safe. In one study on Hong Kong, 120 patients per elective Cholecystectomy were admitted and randomized to remove 2 ports or four ports Laparoscopic Cholecystectomy. The patients didn't know the type of operative 4 surgical type were placed to 4 ports sites in the both groups. After the operative dressing were not opened until 1 week. Patients in the 2 ports group had shorter operation time (54min Vs 66min) and lesser pain at the hypochondrial site overall analysis requirement, hospital stay were similar in two groups. This study recommended the 2 ports laparoscopic Cholecystectomy for elective cholecystectomy.

• Modified 2 Ports Laparoscopic Cholecystectomy

In one study, a modified operating telescope was applied to allow a wide operating field and to facilitate the procedure. Since September 2000 14 patients were admitted to the hospital for elective Cholecystectomy and 2 ports modified Laparoscopic Cholecystectomy was done on them. Modified telescope and grasper were inserted through the umbilical port another port was in epigastric area. In this study the movement of grasper in the optical port was facilitated. The mean operation time was a little shorter than conventional 2 ports laparoscopic Cholecystectomy (53 minutes). There was no any difference in the parameters like as postoperation hospital stay analgesic requirements.

• 2 Ports Needlescopic Cholecystectomy

Needlescopic miniaturized instruments were applied since 1998 in one study 100 patients were admitted to the hospital for laparoscopic Cholecystectomy (sep. 2001 to August 2002). This type of operation were done by two surgeon that both of them stand on the left side of the patient a 10mm modified operating telescope and a long 43cm grasper were inserted through the umbilical port (11mm) and a 3mm dissection instrument were used through epigastric port. The mean operation time was 62 minutes and patient after 5 hours were able to resume at diet. The patients had less epigastric pain than the umbilical site. The mean hospital stay after operation was 2 days.

• Two ports Laparoscopic Cholecystectomy

A new type of 2 ports laparoscopy hospital professor. Dr. R. K. Mishra developed this technique with the use of modified extracorporeal Meltzer knot. Telescope is inserted to the abdomen through the 10mm umbilical P.A and dissection instrument inserted through the epigastric port traction of fundus and Hartman patch were made through two extracorporeal knot. In this method only one operating instruments was used. This technique can be used only in uncomplicated patient by the skilled surgeons.

Conclusion

Two ports laparoscopic Cholecystectomy has power surgical scan and less port side pain but similar clinical outcome compared to four port laparoscopic surgery.

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