MODIFIED THREE PORT LAPAROSCOPIC CHOLECYSTECTOMY: HOW WE DO IT DIFFERENTLY?

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ABSTRACT: The modified three port laparoscopic cholecystectomy technique has the same comfort and feasibility to the surgeon similar to regular three or four port surgery along with added advantage of less pain and better cosmetic appearance to the patient. The procedure is simple and can be conducted in acute and chronic cholecystits in any laparoscopic centre practicing laparoscopy.

KEY WORDS: Three port, Modified Laparoscopic cholecystectomy, cholecystectomy.

INTRODUCTION: Laparoscopic cholecystectomy, an undisputed revolutionary technique in treating gallstones has come a long way ever since the procedure was developed by Wallace in 1991. However with present available technology, superior anaesthesia and increasing surgical skills among surgeons have together relooked into this procedure and ready to go a step ahead to modify the present conventional four port laparoscopic cholecystectomy into three port[1], two port neediloscopic techniques[2], micro laparoscopic cholecystectomy[3] and to the present single port technique. The acceptance will be welcomed in the near future in the same way the laparoscopic cholecystectomy took over the open cholecystectomy two decades ago. Under the same belief we developed a modified two port technique which has the benefits of three/four port technique at the feasibility of two port technique and thus giving the three port comfort to the surgeon and two port result to the patient.

MODIFICATION: This short study period was conducted from October 2012 to December 2012. We collected 20 patients among which 12 patients presented with acute cholecystitis and the remaining 8 presented with chronic cholecystitis. The placement of umbilical port and the epigastric port were the same as for conventional laparoscopic cholecystectomy, using two 10 mm ports, however umbilical port which is used for the telescope placement can be replaced with 5mm port if available. At the end of the procedure gall bladder is retrieved through the epigastric port. Unlike other modifications here the modification is in the working port. Our self-devised technique which is not been explained before includes a unique but simple instrument which has the ability to have direct access into the abdomen without introducing the trocar.

The features of this instrument are a) 2mm diameter shaft for easy passage into the abdomen b) longer serrated blades which open with wider angle help to hold the gall bladder firmly and also retract the gall bladder against liver. The instrument is passed in the abdomen by making a small 2mm skin incision in the mid clavicular line below the costal margin. Before the tip of the instrument is pushed over the peritoneum a small opening is made into the peritoneum with the help of a laparoscopic scissor passed through the epigastric port. This helps in easy passage of our instrument and avoids undue stretching of the peritoneum. Steps of the procedure remain the same

like regular cholecystectomy but this instrument is used to grasp, retract and rotate the gall bladder as and when required. Epigastric port is used to tunnel, clip and cut the cystic artery and cystic duct.

BENEFITS: As the port number decreases, from a surgeons point of view the procedure becomes technically difficult but when viewed from patient point, it gives a better cosmetic appearance and less pain. Using this technique there is safety and feasibility of three ports with the benefit of cosmetic appearance of two ports. In addition the procedure can be performed in patients with acute cholecystitis as well. There is no increase in the risk of bile spillage as seen in the two port technique with three traction sutures placed at the fundus, body and neck area of gall bladder[4] and the two port techniques is not possible in patients with acute cholecystitis.

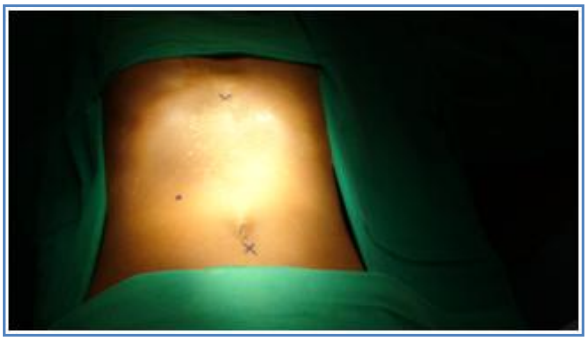

Fig. 1: Marked port

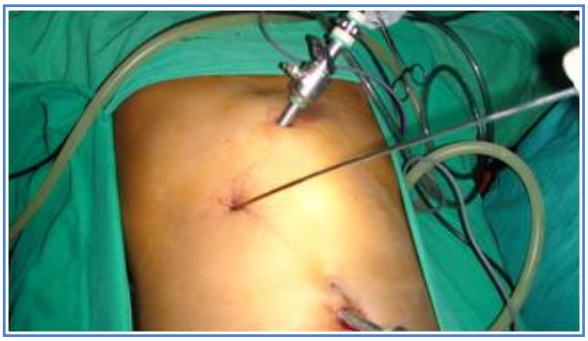

Fig. 2: After placing the ports

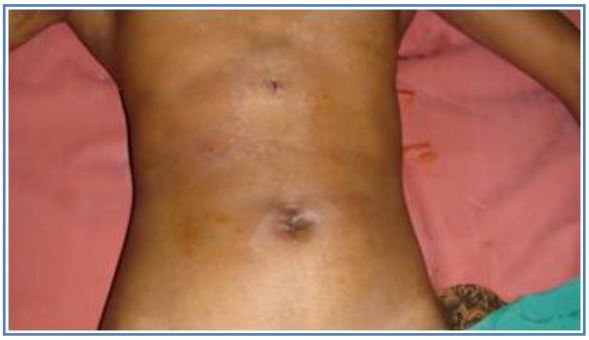

Fig. 3: Post operative scar (modified port site is scar less)

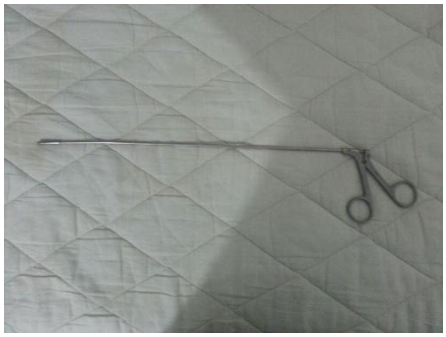

Fig 4.showing special 2mm instrument used in place of 3rd port

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