

## Comparative Study Between 3-Ports and 4-Ports Laparoscopic Cholecystectomy for the Cases of Gall Stone Disease

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### ABSTRACT

Laparoscopic cholecystectomy is currently accepted approach for the management of patients with cholelithiasis. The standard method for removal of gall bladder in laparoscopic cholecystectomy is by using four ports. Although other techniques such as by using 3 ports or only single port are being practiced, their safety and efficacy has not been established. This study was done to assess the efficacy and safety of the use of only three ports for laparoscopic cholecystectomy.

**Methods:** Between August 2013 and February 2014, 78 patients with the diagnosis of cholelithiasis were operated. Patients were randomized into 3-ports group and 4-ports group using random number. Operative time taken for the procedure and operative findings were noted. Postoperative pain and complications were noted in both groups. The two groups were compared using student-T test and chi square test.

**Results:** There was no significant difference in the operating time taken for the 3-ports laparoscopic cholecystectomy and 4-ports laparoscopic cholecystectomy. However operating time was significantly higher when the cases that had dense adhesions present were compared with those who did not have. Conversion from 3-ports technique to 4-ports technique was determined mainly by the degree of adhesions and to some degree by the BMI of the patient. Postoperative wound infection rate was similar among the two groups. There was no incidence of biliary injury in both the groups.

**Conclusion:** 3-ports laparoscopic cholecystectomy is safe and efficient approach for the selected patients who seek for lesser invasive method of laparoscopic cholecystectomy.