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Original Research Article

A comparative study of single incision laparoscopic cholecystectomy with conventional laparoscopic instruments versus multiple port laparoscopic cholecystectomy

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ABSTRACT

Background: Treatment of gall stones have evolved markedly since open cholecystectomy was first described by Lange Buch in 1881. Management has progressed through eras of nonsurgical management, laparotomy, minilaparotomy and now laparoscopic cholecystectomy which is the gold standard for the treatment of gall stone disease today. Laparoscopic surgery is the procedure of choice for most benign gall bladder diseases unless obvious contraindication exists. There has been a trend toward minimizing the required number and size of ports to reduce postoperative pain with better cosmetic results.
Methods: Comparative randomized study was conducted in Department of Surgery, SDM College of Medical Sciences and Hospital between February 2017 to July 2018. 60 patients who fit into the inclusion criteria were included in the study. 30 patients were included in the multiport cholecystectomy and 30 in the SILC. Random allocation of patients presenting with symptoms suggestive of gall bladder disease with confirmatory USG study. Group1: single incision laparoscopic cholecystectomy, Group2: multiple port laparoscopic cholecystectomy.
Results: Majority of presenting patients were in age group 41-50 years. No significant difference in the mean age of patients, surgical complication, conversion rates and SSI operated by the two techniques. Median time required to complete cholecystectomy by SILC technique was not significantly higher than that required for multiport cholecystectomy. Statistically significant lower postoperative pain score was seen in patients with SILC compared to Multiport laparoscopic cholecystectomy. Patients operated by SILC technique had a postoperative hospital stay of mean 4.04 days, almost same as for patients operated by multiport technique.
Conclusions: Difference of Conversion rates and time required for SILC is not significantly higher than that required for multiport cholecystectomy. No rise in intra and post-operative complications occurred in the single port surgery. Postoperative pain is significantly lower in patients undergoing SILC Length of postoperative hospital stay and incidence of SSI for single port cholecystectomy is almost as same as for multiport cholecystectomy.

Keywords: Multi-port laparoscopic cholecystectomy, Single port laparoscopic cholecystectomy