Single incision trans-umbilical laparoscopic cholecystectomy using conventional laparoscopic instruments: An experience of 500 cases

Cholecystectomy is considered the gold standard surgery for cases of cholelithiasis. Since the first successful laparoscopic cholecystectomy was performed in 1987, there has been a trend toward minimizing the required number and size of ports from four to three and finally a single port to reduce abdominal wall trauma, postoperative pain and yield better cosmetic results. We report our experiences from study of 500 cases of single incision laparoscopic cholecystectomy by transfacial technique using conventional instruments. The study was undertaken at a tertiary care hospital over three years of 500 patients of USG proven cholelithiasis in a single surgery unit by a single operator. The study included all cases above 14 years, male to female ratio of patients in was 1:10 and exclusion criterion was same as for conventional cholecystectomy. The procedure was performed using a trans-umbilical incision of size 2-2.5 cms with two 5 mm subfacial stabs for working ports and one 10 mm stab for camera. An anterior axillary line minigrasper was used when required. The mean operative time was 30 min (range: 22-45 min). Four of the cases were subjected to open cholecystectomy as Calot's triangle was frozen. There was cystic artery bleed in three cases which was taken care of using harmonic. There was slipping of clip in post-operative period in two cases which was managed by ERCP stenting. 435 patients discharged on the 1st postoperative day and 65 patients (13.33%) discharged on the 2nd postoperative day. The average wound length measured on 3rd postoperative day in follow up was 2 cm (range: 1.3-2.1 mm); while average score of patient satisfaction of the surgery was of 9.32 (range: 7-10). We concluded that in uncomplicated gall bladder disease, single incision laparoscopic cholecystectomy is feasible and safe with excellent cosmetic results and high grade of patient satisfaction and can be performed with the conventional laparoscopic instruments with adequate experience.

Biography

Lakshman Agarwal is a Senior Professor and ex-Head of Department of Surgery in SMS Medical College and Hospital, India. He holds an MBBS and MS from SMS Medical College, Jaipur. He has more than 25 years of surgical experience in gastrointestinal surgeries. He specializes in advanced laparoscopic procedures with 13+ years of experience, consulting 100+ cases and operating 50+ cases per week pertaining to GI related problems.

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