

## **Is Specialisation Needed in Laparoscopic Cholecystectomy? A Retrospective Cohort Study of 5122 Patients**

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### **Abstract**

*Background:* Gallstone disease is a common problem and laparoscopic cholecystectomy (LC) is a common elective procedure. This operation was performed by a general surgeon, colorectal surgeons, breast and vascular surgeons according to the largest UK's audit (CholeS study).

*Objectives:* To compare the outcomes of laparoscopic cholecystectomy performed by a specialist upper gastrointestinal (UGI) surgeon to that of CholeS and large international studies. Our hypothesis is: UGI specialist is producing better outcomes for LC patients.

*Methods:* All patient who underwent LC between 1999 and 2019 at one hospital by an UGI consultant and 2014-2019 at another hospital by another UGI consultant surgeon were included. The inclusion criteria were LC performed by UGI surgeon. Lost to follow up, procedures done by trainees and gallbladder cancer patients were excluded. The outcome measures of bile leak, bile duct injuries, bleeding, infectious complications, bowel injuries, vascular injuries and pseudo-aneurysms, neuralgia, port site hernia, mesenteric haematoma, 30-day mortality and conversion to open were reported. Statistical tests were used to assess the significant differences, the confidence interval was 95% and the p-value was taken as <0.05.

*Results:* Two UGI specialists performed 5122 LC, 4396 (86%) were female and 715 (14%) male. The age was 13-93 year (median of 48 years). 3681 (72 %) was done as a day surgery case. 1431(28%) as an inpatient and 287 (5.6%) emergency LC. There was no death in the 30 days periods of surgery, 8 (0.15%) biliary leak from the duct of Luschka, 4 (0.19%) common bile duct (CBD) injuries, 9(0.02%) conversions and 17(0.33%) procedures were abandoned. There were significant differences in the above complications between our study and the CholeS report.

*Conclusions:* Laparoscopic cholecystectomy is associated with acceptable outcomes, low risk of bile duct injury and no mortality when performed by a specialist upper GI surgeon.

**Key words:** laparoscopic cholecystectomy, specialization, complications, Upper Gastro-intestinal