

Outcomes of laparoscopic subtotal cholecystectomy in the treatment of gallstone disease in adults. A systematic review.

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Introduction

Laparoscopic cholecystectomy (LC) is the current gold standard for treating patients with symptomatic gallstone disease. Bile duct injury (BDI) is the most feared complication of LC and can cause significant morbidity and mortality.

Laparoscopic subtotal cholecystectomy (LSTC) can be a safe alternative in difficult LC.

However, LSTC is not risk-free and has its own complications such as biliary leakage and recurrent cholelithiasis.

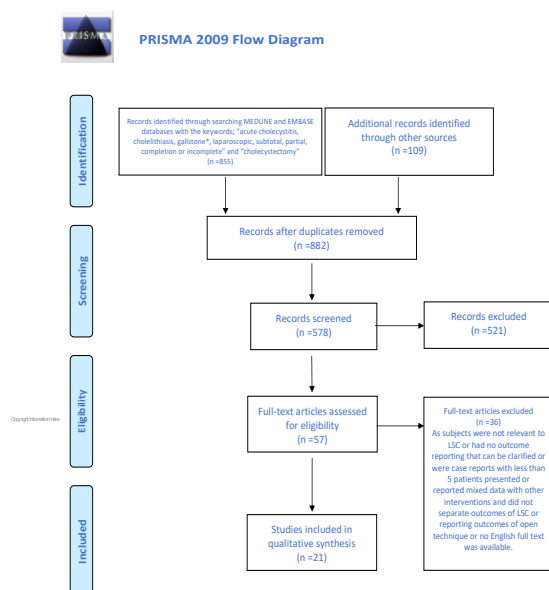
The aim of this project is to perform a systematic review of the evidence available to support laparoscopic subtotal cholecystectomy as a safe alternative that can minimise the incidence of bile duct injury (BDI).

Methods

A comprehensive literature search was performed through MEDLINE and EMBASE databases. All studies comparing LSTC to LC or reviewing long-term outcomes of LSTC without control in adults were included. A data extraction form was used to collect data.

The primary outcome measured will be the occurrence of postoperative complications; bile duct injury, biliary leakage and surgical site infection.

Results



From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(7): e1000097. doi:10.1371/journal.pmed1000097

For more information, visit www.prisma-statement.org.

Figure: PRISMA Flow Diagram

The initial search identified 855 results which were hand-searched. 72 publications were selected for abstract review.

From this, 21 manuscripts were included in this review; 4 studies compared the LSTC cohort with other cholecystectomy cohorts.

Overall there were 1371 LSTC patients. 5 bile duct injuries were reported in the LSTC cohorts. Biliary leakage was reported in 99 cases.

There were 125 post-operative therapeutic Endoscopic retrograde Cholangio-pancreatography (ERCP) procedures performed following LSTC.

Only 9 of the included studies reported on long-term outcomes. There were 31 recurrences of biliary events, 17 completion cholecystectomies were required after LSTC, 9 umbilical port-site hernias, and one case of delayed biliary peritonitis.

Conclusions

LSTC is increasingly popular and provides an acceptable alternative in difficult cases; potentially avoiding bile duct injury.

This comes with an increased rate of secondary interventions and other complications. Further research is required to affirm such conclusions with stronger evidence.