

POSTER 59

TWO-STAGE VS. SINGLE-STAGE MANAGEMENT OF PATIENTS WITH CHOLEDOCHOLITHIASIS: META ANALYSIS OF RANDOMIZED CONTROLLED TRIALS

Abhishek Choudhary (Fellow)

Jessica Winn (Resident)

Murtaza Arif (Fellow)

Nicholas M. Szary (Fellow)

Ajitender Grewal, MD

Ghassan M. Hammoud, MD

Matthew L. Bechtold, MD

(Jamal A. Ibdah, MD, PhD)

Department of Internal Medicine, Division of Gastroenterology

Background: Current management of choledocholithiasis involves two stage process involving ERCP and laparoscopic cholecystectomy (LC). An alternative single-stage laparoscopic treatment was introduced for these patients. Various randomized controlled trials (RCT's) done to compare these 2 modalities but with controversial results. Methods: MEDLINE, Cochrane Central Register of Controlled Trials & Database of Systematic Reviews, PubMed, and recent abstracts from major conference proceedings were searched (09/2010). RCT's comparing ERCP and LC versus single stage laproscopically assisted CBD stone extraction were included. The effects of both the methods were analyzed by calculating pooled estimates by using odds ratio (OR) for stone extraction efficacy, complications and cross over to other techniques. Publication bias & heterogeneity was assessed funnel plots & I² measure of inconsistency respectively. Results: Five trials met inclusion criteria. Trials were of adequate quality (Jadad score ≥ 2). CBD stone extraction was noted in 89.02% with two stages process where as 84.6 % in single stage laparoscopy assisted CBD stone removal. Trend of higher stone extraction, low complications and less cross over to other techniques was noted in two stage ERCP and lap cholecystectomy group but could not reach significant level (OR 1.39; 95% CI: 0.81-2.38, p=0.23; OR 0.77; 95% CI: 0.49-1.25, p=0.26; OR 0.81; 95% CI: 0.49-1.35, p=0.45) respectively. Funnel plot revealed no publication bias. Conclusions: ERCP assisted CBD stone extraction with LC results in overall better outcomes but could not reach significant levels.