

SAFETY AND EFFICACY OF ETOMIDATE VS PROPOFOL IN ENDOSCOPIC RETROGRADE CHOLANGIO-PANCRETOGRAPHY: A SYSTEMATIC REVIEW AND META-ANALYSIS

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BACKGROUND

- Patients undergoing Endoscopic retrograde cholangiopancreatography (ERCP) are commonly hemodynamically unstable.
- Proper choice of the anesthetic drug is important to decrease morbidity and mortality.

AIM

- We aim to compare the safety and efficacy of etomidate and propofol in ERCP undergoing patients.

METHODS

- Search engines: PubMed, Web of Science, Scopus, and Cochrane Library.
- Data collection: Inception till May 2022.
- Inclusion Criteria: Randomized controlled trials receiving etomidate or propofol for ERCP.
- Efficacy Outcomes: Induction time, procedure duration, recovery time, patients' satisfaction, and endoscopists' satisfaction.

- Safety Outcomes: bradycardia, tachycardia, hypotension, hypertension, injection-site pain, myoclonus, and other adverse events.
- We assessed Mean difference (MD) and Relative risk (RR) with relative 95% confidence intervals (CI)
- RevMan Software to perform the analysis and assessed the heterogeneity using the I² statistic

RESULTS

- Studies Included: 4
- The efficacy outcomes showed no significant difference between the two drugs
- The safety outcomes, etomidate showed significant results compared to propofol in decreasing the risk of hypotension (RR = 0.19, 95% CI [0.05, 0.71], P = 0.01) and injection site pain (RR = 0.27, 95% CI [0.10, 0.70], P = 0.007).

CONCLUSION

- Both drugs had similar efficacy on sedation or anesthesia of patients who underwent ERCP.
- Etomidate was associated with increased risk of myoclonus while propofol was associated with increased risk of hypotension and injection site pain..

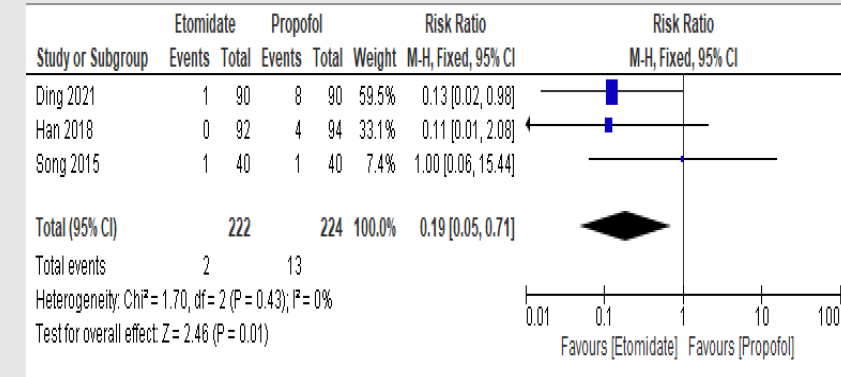


Figure 1: Forest plot for Hypotension

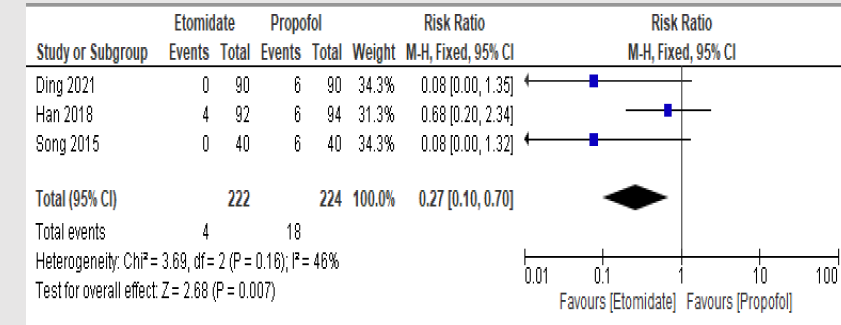


Figure 2: Forest plot for Injection-Site pain

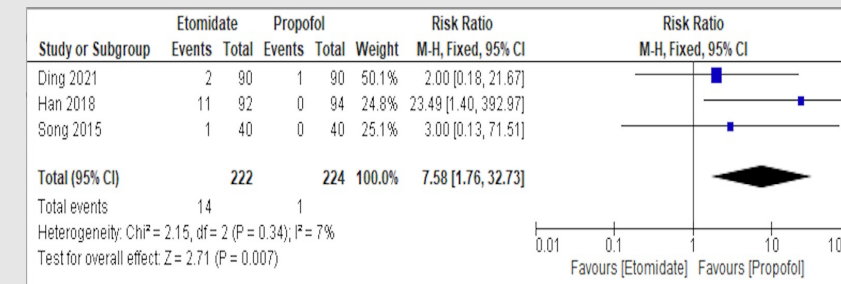


Figure 3: Forest plot showing risk of Myoclonus