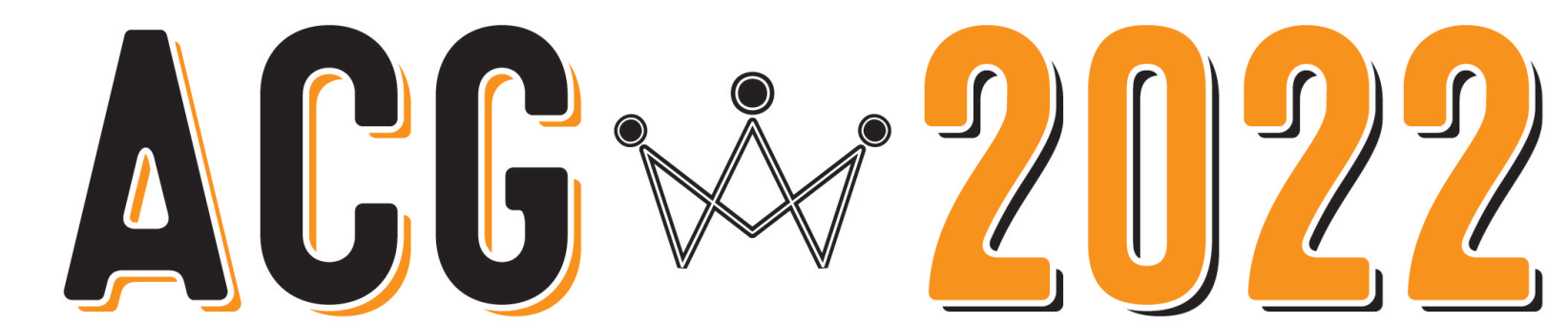


Single Session Combined Laparoscopic Hernia Repair with Transoral Incisionless Fundoplication: A Systematic Review and Meta-analysis



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Background

- Transoral incisionless fundoplication (TIF) is a promising anti-reflux surgery that can be performed in patients with hiatal hernia ≤ 2 cm.
- Recently, single session combined laparoscopic hernia repair followed by TIF (cTIF) has been used for patients with gastroesophageal reflux disease (GERD) with hiatal hernia length > 2 cm.
- We conducted this systematic review and meta-analysis to assess outcomes of single session combined laparoscopic hernia repair with transoral incisionless fundoplication.

Methods

- We conducted a comprehensive search of Ovid Cochrane, Ovid Embase, Ovid Medline, Scopus, and Web of Science (inception to March 2022) to identify studies reporting on laparoscopic hiatal hernia repair followed by transoral incisionless fundoplication.
- Case reports, review articles, editorials, studies with less than 10 patients were excluded. Studies reporting on either only TIF or TIF after failure of anti-reflux surgery were also excluded.
- Outcomes assessed were mean difference in GERD-HRQL (gastroesophageal reflux disease-health related quality of life) and RSI (reflux severity index) questionnaire pre-procedure and post-procedure.
- Follow up duration was six months for the study.
- Standardized mean difference was calculated for outcomes in the study.

Key Message:

Single session laparoscopic hernia repair with transoral incisionless fundoplication is an effective procedure for patients with GERD and hiatal hernia > 2 cm

Results

- Out of 64 studies, 4 studies were finally included based on the inclusion criteria.
- Total 262 patients with mean age 55.27 ± 3.58 years; 117/256 (45.7%) males were included in the study.
- Mean BMI of patient population was 29.48 ± 1.03 .
- Mean difference for GERD-HRQL score was 2.72 (4 studies; 95% CI 0.83 - 4.6), $p = 0.005$, I^2 96%.
- Mean difference for RSI was 1.31 (4 studies; 95% CI 1.06 - 1.57), $p < 0.001$, I^2 0.

Conclusions

- This is the first study to assess pooled mean difference of efficacy indicators of cTIF.
- Analysis showed significant reduction in GERD-HRQL score after cTIF procedure. RSI score was also found to be significantly reduced post cTIF procedure.
- Combined TIF is an effective procedure for patients with GERD and hiatal hernia > 2 cm.

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