



# Gastroenterología y Hepatología



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## 192 - ANTERIOR VERSUS POSTERIOR MYOTOMY DURING POEM FOR THE TREATMENT OF ACHALASIA: SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMIZED CLINICAL TRIALS

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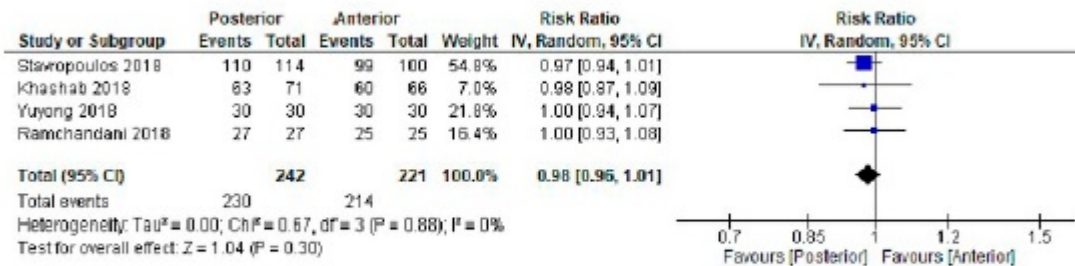
### Resumen

**Introduction and objectives:** The optimal orientation of the myotomy during peroral endoscopic myotomy (POEM) is unknown. This meta-analysis aims to compare anterior and posterior myotomy regarding clinical success and safety.

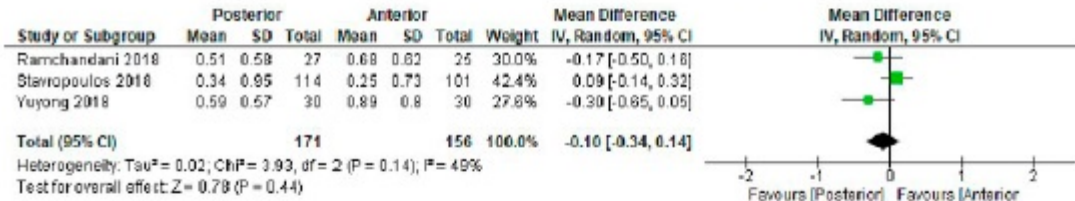
**Material and methods:** Pubmed, Embase, the Cochrane Library, WOK, and clinicaltrials.gov were searched to identify randomized clinical trials (RCTs) comparing anterior and posterior myotomy during POEM for treatment of achalasia. The primary outcome was clinical success. Secondary outcomes included postprocedural gastroesophageal reflux disease (GERD), adverse events (AEs), manometric findings, and procedure-related parameters. Random-effects models were used for the primary analysis.

**Results:** A total of four RCTs enrolling 488 patients were included. Overall clinical success 3-12 months after POEM was 97% (95% confidence interval [CI] 93-100%) and did not differ between anterior and posterior myotomy (Relative risk [RR] 0.98, 95%CI: 0.96-1.01; I<sup>2</sup>: 0%). Incidence of GERD after POEM based on 24-hour pH monitoring (RR 0.98, 95%CI: 0.75-1.28), endoscopy (RR 1.04, 95%CI: 0.78-1.38), and symptoms (RR 0.89, 95%CI: 0.55-1.42) was similar. Posterior myotomy was associated with fewer AEs (RR 0.63, 95%CI: 0.42-0.94), lower risk of mucosotomy (RR 0.42, 95%CI: 0.27-0.66) and shorter incision closure time (Mean difference: -2.28 minutes, 95%CI: -3.46 to -1.10). Anterior myotomy was associated with a shorter length of hospitalization (mean difference: 0.31 days, 95%CI: 0.05-0.57), although the clinical relevance of this finding is negligible. No significant differences were found regarding manometric outcomes, total operation and myotomy time.

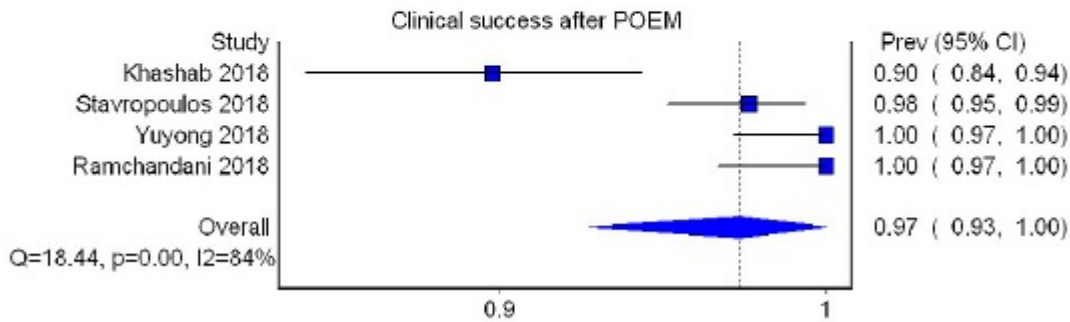
### Anterior vs Posterior myotomy. Pooled Relative risks.



### Anterior vs Posterior myotomy. Eckardt score as quantitative variable.



### Overall clinical success after POEM.



**Conclusions:** Anterior and posterior myotomy are equally effective for the treatment of achalasia, without significant differences in postprocedural GERD. Posterior POEM was associated with fewer AEs and shorter incision closure time.