

## C1

**Title: Do Topical Corticosteroids induce histologic remission and improve clinical symptoms in Eosinophilic Esophagitis? A systemic review and Meta-Analysis of Randomized Controlled Trials**

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### Introduction

Eosinophilic Esophagitis (EoE) is a chronic allergic inflammatory condition, characterized by dense eosinophilic infiltrate into the epithelial lining of the esophagus due to an allergic response against ingested food. Inflammatory mediators induce a chronic inflammatory reaction that contribute to progressive remodeling and narrowing leading to strictures and fibrosis. Different treatment modalities have been used including Dietary elimination, PPI, oral or Topical corticosteroids and endoscopy. The goal of treatment is to control the symptoms and prevent relapses by cutting the inflammatory cascade. In our study, we aim to assess the histologic remission rate, symptomatic improvement rate and the risk of developing candidiasis while using TCS.

### Method

Literature review for RCTs with primary endpoints of histologic remission and symptomatic improvement rates in EoE patients on TCS versus Placebo. Histological remission was evaluated comparing the mean eosinophil level found on biopsies versus the pretreatment level. Symptomatic improvement was evaluated using the frequency and severity of Dysphagia and Odynophagia.

### Result

We included 9 RCTs, with a total population of 483. We found that the relative risk to develop histologic remission was 12.5(95% CI 6.04-25.88), the relative risk to develop symptomatic improvement was 1.84(95% CI 1.02-3.32) the risk ratio to develop oral or esophageal candidiasis post TCS was 4.31(95% CI 1.53-12.18).

### Discussion

we conclude that Patients with EoE who were on TCS were 12.5 times more likely to develop histologic remission, 1.84 times more likely to develop clinical symptomatic improvement, and 4.31 times more likely to develop oral or esophageal candidiasis.