

## 'A Hard Act to Swallow'

### Can recent advances help in the medical management of Eosinophilic Oesophagitis?

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## BACKGROUND

### WHAT IS EOSINOPHILIC OESOPHAGITIS (EoE)

EoE is a chronic, immune mediated disease leading to oesophageal dysfunction caused by an inflammatory response to allergens (Franciosi et al, 2023).

Exact cause is unknown. However, it is believed that it could be due to genetics or an exposure to allergens in food and environment, a previous history of allergy related conditions such as asthma or eczema and early life exposures where the microbiome may have been compromised.

### PRESENTATION OF EoE:

Increased eosinophil production in the bone marrow and recruitment to oesophageal mucosa by inflammatory signals.

Produces a range of symptoms: Clinical symptoms (eg. difficult swallowing, pain, digestive problems, vomiting); Histological features (eg. at least 15 eosinophils per high powered microscopic field eos/hpf); Endoscopic changes (eg. narrowing of lumen, stricture formation) (Dhar et al, 2022).

### SCALE OF THE PROBLEM?

The incidence and prevalence of EoE is rising annually with a current prevalence of 118 per 100,000 population. It is the second most common inflammatory oesophageal disease and one of the most common gastrointestinal emergency (Dhar et al, 2024, Roberts et al, 2024). Current management includes medication such as Corticosteroids, Biologics, PPIs, elimination diets. There is currently no cure for EoE. Treatment may help to reduce the severity of symptoms and improve quality of life but does not cure the condition completely.

## OBJECTIVES:

To evaluate the efficacy and safety of medical interventions for people with EoE.

## MATERIALS & METHODS:

Conducted a systematic review, of randomised control trials Comparing medical intervention and/or food elimination diet for the treatment of EoE, either alone or in combination, to any intervention including placebo, in adults and children.

Screened 399 studies, including 12 completed studies in this update. This, in addition to the 41 studies (including 3253 participants) included in the 2023 Cochrane Review, will form the new updated evidence.

## RESULTS:

### CURRENT TREATMENT OPTIONS FOR EoE?

**Topical Corticosteroids**- eg. Budesonide, Fluticasone. When swallowed, this oral medication lines the walls of the oesophagus producing relief from symptoms such as dysphagia alongside producing histological improvement.

**Biologics** eg. Dupilumab, Mepolizumab, act on proteins and immune pathways to improve symptoms

**PPI** (Proton Pump Inhibitors)- eg. Omeprazole and Lansoprazole, to help reduce inflammation

**Diet Therapy**- Eliminating certain trigger foods such as eggs, milk, soy, nuts in a graded manner and repeating camera tests and biopsies to check for improvement.

**Mechanical dilatation**- used if the oesophagus lumen is narrowed or has developed strictures.

Corticosteroids may be better than placebo at improving patient symptoms, reducing the number of eosinophils and have less adverse effects compared to placebo. Biologics may be better than placebo at reducing symptoms but patients may experience serious side effects almost comparable to that of placebo. Also, endoscopic improvements are not markedly evident. Diet therapies may work for individuals but may impact quality of life.

In the absence of curative treatment, supportive treatment options are the only alternatives available to patients.

**Eosinophilic Oesophagitis: A Hard Act To Swallow!**



## FUTURE AREAS FOR RESEARCH IN EoE:

There are currently many gaps in our knowledge of EoE which warrants further research

- Cause and progression of EoE and its prevention.
- Non endoscopic/ non-invasive techniques for diagnosis of EoE
- Standardised quantification of symptom severity to guide therapy and record disease response.
- Patient education about the condition and its long term management, including shared decision making between clinicians and patients.

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