Eosinophilic oesophagitis:

a clinical update

BACKGROUND

Eosinophilic oesophagitis (EoE) is a clinicopathological disease typified by eosinophilic infiltrate of the oesophageal epithelium, due to an allergic inflammatory response mediated by either food antigens or aeroallergens. The presence of eosinophils in the oesophagus has been recognised for a number of years since they were described in a case of achalasia;¹ however, their associations with dysphagia and food bolus obstruction were first described by Attwood *et al* in 1993² and Straumann *et al* in 1994.³ While initially more frequently recognised in the paediatric population, EoE has since become an increasingly recognised cause of dysphagia and food bolus obstruction among adults.

The presentation of EoE varies with age. Young children can present with failure to thrive and food refusal, whereas adolescents may experience vomiting, epigastric pain, or chest pain. Adults usually present with dysphagia, heartburn, chest pain, and food bolus obstruction. EoE is more common in males; often in individuals with a personal or family history of other allergic disorders such as asthma, allergic rhinitis, eczema, or hay fever. Patients with EoE are often initially misdiagnosed as having gastro-oesophageal reflux disease.

INCREASING PREVALENCE

EoE is increasingly recognised in the US and Europe, partly through greater awareness of the disease but probably also due to a true increase in incidence.⁴ It is still infrequently recognised in the UK and many patients remain undiagnosed. Most patients have a long duration of symptoms by the time of diagnosis. While the prevalence of EoE in the UK is unknown, definite EoE was found in four of 1000 community subjects in Sweden.⁵ Assuming the prevalence in the UK is similar, there should be approximately 24 patients with EoE in a typical general practice with 6000 patients.

MECHANISMS PRODUCING SYMPTOMS

Only a minority of patients have oesophageal strictures. Oesophageal peristalsis, as evaluated by barium swallow and standard or high resolution manometry, often shows no abnormalities. The functional abnormality may lie in the outer longitudinal muscle layer of the oesophagus which has weaker and delayed contractions.⁶

IMPORTANCE

Patients with EoE have been shown to remain symptomatic for at least 10 years, their symptoms impacting significantly on quality of life.⁷ Without effective therapy, chronic, uncontrolled inflammation may evoke irreversible structural alterations, leading to tissue fibrosis and stricture formation.⁸ Prompt diagnosis and treatment is therefore imperative.

DIAGNOSIS

Upper gastrointestinal endoscopy usually show changes such as rings, nodules, or longitudinal furrows but these changes can be subtle and endoscopic appearances are totally normal in some cases. The diagnosis is based on oesophageal biopsies showing greater than 15 eosinophils per high power field on microscopy. Eosinophils can occur in reflux oesophagitis but in smaller numbers and are usually localised in the distal oesophagus.

TREATMENT

Topical steroid therapy is currently the mainstay of treatment. Fluticasone propionate and betamethasone can be sprayed into the mouth without a spacer and dry-swallowed to provide topical anti-inflammatory effect to the oesophageal body.⁹ Only very small amounts are absorbed and systemic side effects are therefore minimal. Montelukast, a leukotriene receptor antagonist used for asthma, was reported to be beneficial in a small number of EoE patients.¹⁰ Large doses have to be used and there is no

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Figure 1. Characteristic ringed appearance seen in eosinophilic oesophagitis.

improvement in oesophageal eosinophil infiltration. Montelukast, along with the mast cell stabiliser sodium cromoglycate and immunosuppressive therapy such as 6-mercaptopurine or azathioprine are not currently considered standard therapy for EoE.^{11,12} Biological agents are currently under evaluation.

Dietary manipulation with both elimination and elemental diets are helpful in children. More recently, benefit has also been shown in adults. As restrictive diets can be difficult to follow, allergy testing can be performed to identify causative foods, and allow for more focused dietary manipulation.

NATIONAL REGISTRY OF EOSINOPHILIC OESOPHAGITIS

The oesophageal section of the British Society of Gastroenterology set up a National Registry in March 2010. In 18 months approximately 300 patients had been entered, representing less than 2% of the expected number. While known cases may not have been reported, it is likely that a large number of cases remain unrecognised and this view is supported by the long duration of symptoms many patients report at the time of diagnosis.

Patients of any age with dysphagia or food bolus obstruction should be referred for endoscopy and oesophageal biopsies obtained even if the oesophageal mucosa appears to be normal. Greater awareness of this entity among primary care physicians, endoscopists, and histopathologists will likely lead to fewer missed cases and earlier diagnosis and treatment.

Provenance

Freely submitted; externally peer reviewed.

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