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Eosinophilic Oesophagitis

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Eosinophilic oesophagitis (EoE) results in an inflamed oesophagus, the muscular tube that connects the mouth to the stomach. Most cases are seen in people with other allergies such as allergic rhinitis (hay fever) and asthma. The frequency of eosinophilic oesophagitis appears to be increasing. The reasons are unclear, but it is known that allergies of all types have become more common.

Eosinophilic Oesophagitis is increasing

The exact prevalence in adults is uncertain, but it is estimated to affect 1 per 10,000 children and approximately 1 per cent of adults in Australia.

What is an eosinophil?

An eosinophil is a type of white blood cell that also causes the allergic type of inflammation seen in allergic rhinitis (hay fever) and asthma.

What is eosinophilic oesophagitis?

In eosinophilic oesophagitis the lining of the oesophagus is infiltrated with eosinophils. This can result in abnormal function of the oesophagus and symptoms of heart burn.

The condition affects mainly children and young adults

Eosinophilic oesophagitis has been described mainly in children and young adults. It should be suspected when a person complains of:

- Foods sticking on the way down, sometimes completely;
- Choking on food;
- Regurgitation of foods;
- Severe acid reflux (heartburn) that does not respond to medicines used to suppress stomach acid production.

If left untreated, the condition can result in permanent scarring of the oesophagus. It should be noted that mild reflux and vomiting are common in children and adults, and most do not have eosinophilic oesophagitis.

How is Eosinophilic oesophagitis diagnosed?

If a diagnosis of eosinophilic oesophagitis is suspected by your treating doctor, confirmation by examination of your oesophagus using an instrument known as an endoscope is required. A tissue sample (biopsy) will be taken at the same time and examined to look for the presence of eosinophils. Endoscopy and biopsy is normally performed by a gastroenterologist (stomach/bowel medical specialist). Sometimes a blood sample will show a higher than normal level of eosinophils in the blood as well.

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Eosinophilic oesophagitis may result from pollen or food allergy

Around 80 per cent of people with eosinophilic oesophagitis also have other allergic conditions such as allergic rhinitis (hay fever) or asthma. When allergy testing is performed, many will have positive skin prick tests or patch tests to foods, even when there are no obvious symptoms after they are consumed. When food is involved, staples such as cow's milk (dairy products), wheat, meats, soy and egg seem to be the most common triggers. Some researchers have found that people benefit if these foods are removed from the diet. Others have found that symptoms appear only during springtime when people are exposed to pollens.

Who treats this condition?

Most people with eosinophilic oesophagitis are managed by gastroenterologists. Recognising that allergy may also play a role in some patients, many are managed by clinical immunology/allergy specialists as well as specialist dietitians.

Treatment options

Time

Symptoms in infants may resolve in the first few years of life, particularly when only 1 or 2 foods are involved. Unfortunately, when symptoms arise in older children and adults, they usually last for many years. Follow up studies so far indicate that they do not seem to resolve in these groups, but more long term follow up studies may provide more information.

Medication

- Medication to reduce acid production will reduce acid reflux and the scarring that can result.
- Topical asthma steroid puffers can reduce inflammation in the oesophagus. These are swallowed instead of inhaled, are low dose, poorly absorbed, and extremely unlikely to cause cortisone/steroid tablet like side effects. They help reduce inflammation and the scarring that can result from untreated disease.
- Montelukast (Singulair) is an asthma tablet that reduces inflammation by blocking the effects of inflammatory chemicals known as leukotrienes released by white cells.
- Other medicines are also being studied.

Dilation

Sometimes if the oesophagus is very narrow, an endoscopy and a procedure known as dilation may be required to open up the oesophagus to allow food to pass more easily.

Diet manipulation

Dietary manipulation should be undertaken under the direction of a medical specialist and supervision of a specialist dietitian. Dietary manipulation may assist both adults and children. When undertaking dietary manipulation, the foods are removed for a period of time and then re-introduced one at a time to see which foods result in symptom recurring.

Types of dietary manipulation commonly used include:

- Common food allergen elimination diet – this usually includes the removal of cow's milk, soy, egg, wheat, peanuts, tree nuts, fish and shellfish. Allergy testing or patient history may result in the removal of additional foods.
- Directed diets – foods are removed based on the history of trigger foods and allergy testing.

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- Amino acid based diets – this diet is based on amino acid formula and is impractical in adults and most older children.

Endoscopies and repeat biopsies may be needed to monitor the response to treatment. It is important to note that:

- Diagnosis of eosinophilic oesophagitis should always be confirmed first by endoscopy and biopsy.
- Dietary manipulation should be temporary, initiated by a medical specialist and supervised by a skilled dietitian to avoid the risk of malnutrition.

Not all eosinophilic oesophagitis is related to allergy

Around a quarter of people with eosinophilic oesophagitis have no evidence of an allergic reaction, some have underlying conditions that can cause similar inflammation in the gut. These people will not respond to diet manipulation, but may respond to medication.

This is a developing area of research

As eosinophilic oesophagitis is a developing area of research more is being discovered about this condition. There are controversies as to the role of allergy and diet manipulation, and how many people are actually helped by diet. Furthermore, sometimes symptoms may improve with diet manipulation, but the underlying inflammation can still persist. At this time it is not clear how aggressive treatment should be in all cases; should we aim to settle the symptoms, or try to control the underlying inflammation as well? More people are being reported with symptoms during the pollen season, suggesting that inhaled allergen (or perhaps swallowed pollen) may cause problems in some people.

Other Resources and Web Links

American Partnership for Eosinophilic Disorders: www.apfed.org

Australian Support Network for Eosinophilic Oesophagitis and related disorders:
www.ausee.org

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Content last updated January 2014