

Eosinophilic Esophagitis

Eosinophilic esophagitis (EE) is an allergic, inflammatory disease caused by elevated eosinophils in the esophagus, which lead to inflammation of the esophagus. The eosinophils cause damage to the tissue of the esophagus. Other allergic issues often are part of EE, including a runny nose, asthma, and skin rashes such as eczema.

Food allergy or intolerance can cause EE, which is why diet is so important to people with EE. Diseases other than EE can cause eosinophils to flourish in the esophagus, including gastroesophageal reflux diseases and inflammatory bowel disease. EE is a rare disorder, and diagnosis can take several years.

Eosinophils are a type of white blood cell that are normally found in the intestines, but are not normally found in the esophagus. Eosinophils help to fight off certain types of infection and are involved in allergic reactions. Eosinophils sometimes are damaging if they migrate to parts of the body that they are not normally found in, such as the nose if a person has rhinitis, the lungs if a person has asthma, or the esophagus if a person has EE.

Diagnosis

EE usually is diagnosed through endoscopy with biopsies. The gastroenterologist will look at the esophagus, the stomach, and the upper part of the intestines (the duodenum). Several tissue samples are taken. Once EE is diagnosed, the next step is allergy testing to determine the underlying cause of the disorder.

EE can affect anyone, of any age or ethnic background. Males are more at risk than females. Some people may have a genetic tendency to develop EE. Most people with EE have a familial history of allergies and symptoms of allergy disorders, such as asthma, nasal allergies, atopic dermatitis, and/or food allergy.

Symptoms

The following are symptoms of EE:

- Reflux that does not respond to acid-blocking medication
- Difficulty swallowing
- Food gets stuck in the esophagus
- Nausea and vomiting
- Poor growth, malnutrition, weight loss, and/or poor appetite
- Abdominal or chest pain
- Difficulty sleeping
- Irritability (in infants)

Treatment

EE is treated with a combination of medication and diet. Sometimes environmental allergens are diagnosed, and it is necessary to avoid them or eliminate them from the environment. These include dust mites, pollen, mold, and/or animals. Topical corticosteroids are the most commonly prescribed type of medication for EE. These steroids help to control the inflammation and to eliminate the eosinophils.

Sometimes systemic steroids, such as prednisone, are necessary. However, no medications are approved specifically for the treatment of EE. Acid-blocking medications sometimes are used to treat reflux, and anti-nausea medication sometimes is used. Rarely, a physician may choose to try anti-inflammatory medications and immunosuppressive medications that are more commonly used for Crohn's disease and ulcerative colitis.

These are three types of diets used in the treatment of EE:

- **Targeted Elimination Diet:** Foods that are proven as allergenic to the individual during testing are removed from the diet.
- **Empiric Six-Food Elimination Diet:** Instead of basing elimination of food on skin testing, six commonly allergenic foods are restricted. These include:
 - Milk
 - Eggs
 - Wheat
 - Soy
 - Nuts
 - Fish

Sometimes only peanuts and shellfish are eliminated, but other times all nuts and fish are eliminated.

If either of the elimination diets is effective in clearing the eosinophils from the esophagus, a person may begin a "food trial." This is when each food that was eliminated is added back to the diet, one at a time, to determine which foods are causing a reaction. This may entail repeat endoscopies. Usually a new food is introduced every 4-7 days. It is important to work with a registered dietitian throughout this process.

- **Elemental diets:** All sources of protein are removed from the diet. The only food consumed is an amino acid formula, simple sugars, salt, and oil. Often a feeding tube is necessary because of the poor-taste quality of these formulas. These formulas are very expensive and are not always covered by health insurance. Elemental diets usually are reserved for individuals with multiple allergies, cases when no specific allergen is identified, or when other treatment options have failed.

References and recommended readings

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