

Eosinophilic Esophagitis Updates

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I have no disclosures

Objectives

- Define eosinophilic esophagitis
- Identify presenting symptoms in children
- Establishing the diagnosis
- Understand the approach to eosinophilic esophagitis management in children

Eosinophilic Esophagitis - Definition

- Chronic inflammation of the esophageal mucosa
- 2nd most common cause of chronic esophagitis
- Prevalence is increasing
- Non-IgE antigen-mediated TH-2 pathway
 - Foods, environmental aeroallergens
- Children with EoE have a higher prevalence of atopic conditions

Eosinophilic Esophagitis - Definition

- Requires clinical symptoms of dysfunction & histologic evidence
- Clinical
 - Feeding difficulty, Nausea, AP, V, poor weight gain, dysphagia/globus
- Histology
 - Eosinophils > 15/hpf
 - Other causes of esophageal eosinophilia excluded

Esophageal Eosinophilia – DDx

- GERD
- Parasitic, fungal infections
- Crohns disease
- Allergic vasculitis
- Connective tissue disease
- Drug hypersensitivity

Eosinophilic Esophagitis - Presentation

- Presentation is age-dependent

Table 1. Eating Behaviors in Pediatric Patients With Eosinophilic Esophagitis

Variable	Infants or toddlers	Grade school	Adolescents
Duration of meals	Mealtimes longer than sibling or rest of family; often leaves and comes back to the table; grazes on small volumes of liquid or food	Mealtimes longer than friends; returns from school with full lunchbox	Avoids social dining due to prolonged mealtime or fear of food getting stuck
Coping behaviors	Preference for liquids and soft foods over solid foods Pockets food in cheek for prolonged periods and/or spits food out; dips foods in liquids	Use of large amounts of dips, sauces, or liquids to help swallowing; may have narrow range of preferred foods Prolonged chewing of food before swallowing	Always needs water bottle or liquids with meals Prefers a soft-textured diet
Food selection	Difficulty advancing diet from pureed baby food; demonstrates feeding refusal or fussy behavior during meals	Difficulty to refusal to expand diet with new flavors, types of foods, or textures	Avoidance of certain food textures, specifically meats, bread, rice, raw fruits, and vegetables

Table 1. Presenting symptoms of eosinophilic esophagitis by age

	Symptoms
Infants	Reflux and vomiting Weight loss and failure to thrive Coughing Food refusal
Children	Prolonged chewing and over-lubricating food; slow eating Decreased appetite, food refusal, selective eating Chest pain or heartburn Abdominal pain or nausea Nausea, vomiting Choking/gagging, feeling food is 'sticking,' throat pain
Adolescents and adults	Nausea, vomiting, abdominal pain Dysphagia and retrosternal pain Food or medication impaction

Eosinophilic Esophagitis - Presentation

- Compensatory behaviors
- Growth percentiles
- Signs of atopy

Eosinophilic Esophagitis – Diagnosis

- Endoscopy with biopsies

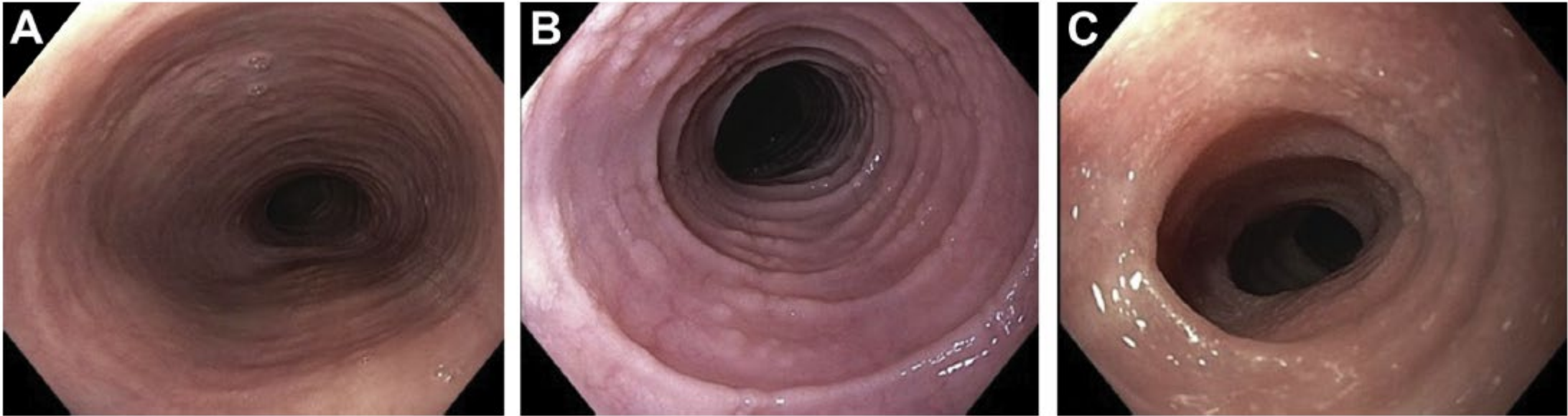
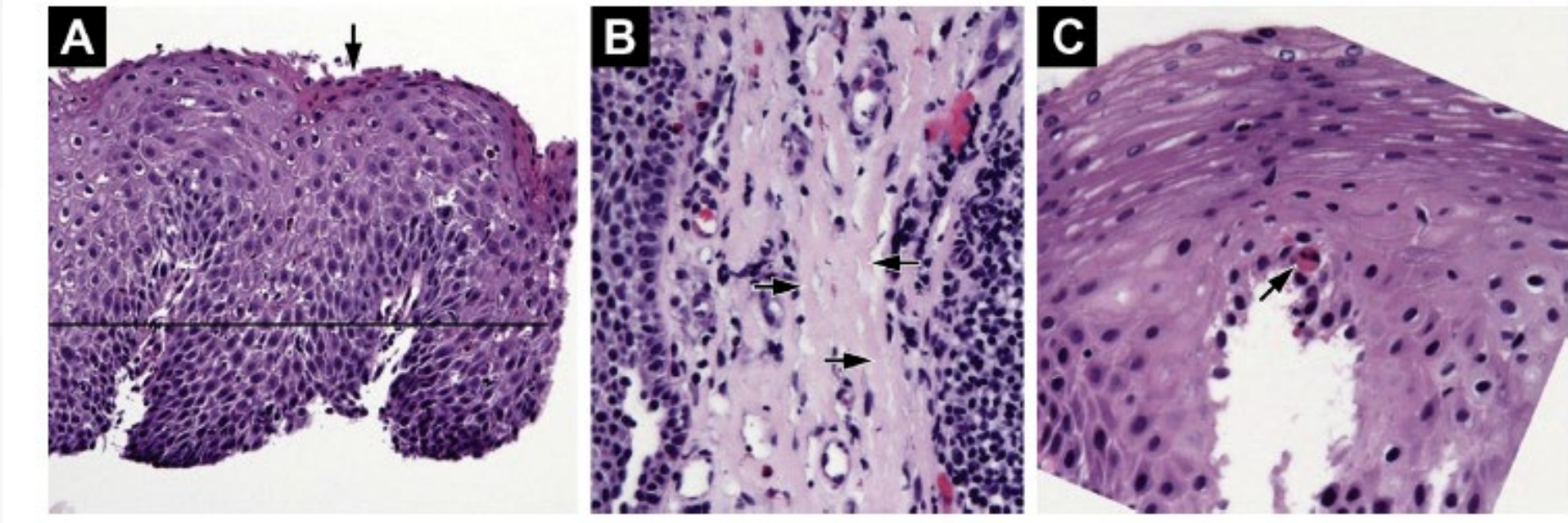


Figure 3. Fibrotic endoscopic findings. Examples include (A) mild rings where the endoscope passes easily, (B) prominent rings with some narrowing where dilation is required and the endoscope passes with a “snug fit,” and (C) severe rings with a focal stricture that precludes passage of a standard upper endoscope.

Eosinophilic Esophagitis – Diagnosis

- Histology



Eosinophilic Esophagitis - Management

- Goal to improve symptoms & prevent complications
- PPI therapy
- Topical steroids
- Prednisone
- Food elimination

Eosinophilic Esophagitis - Management

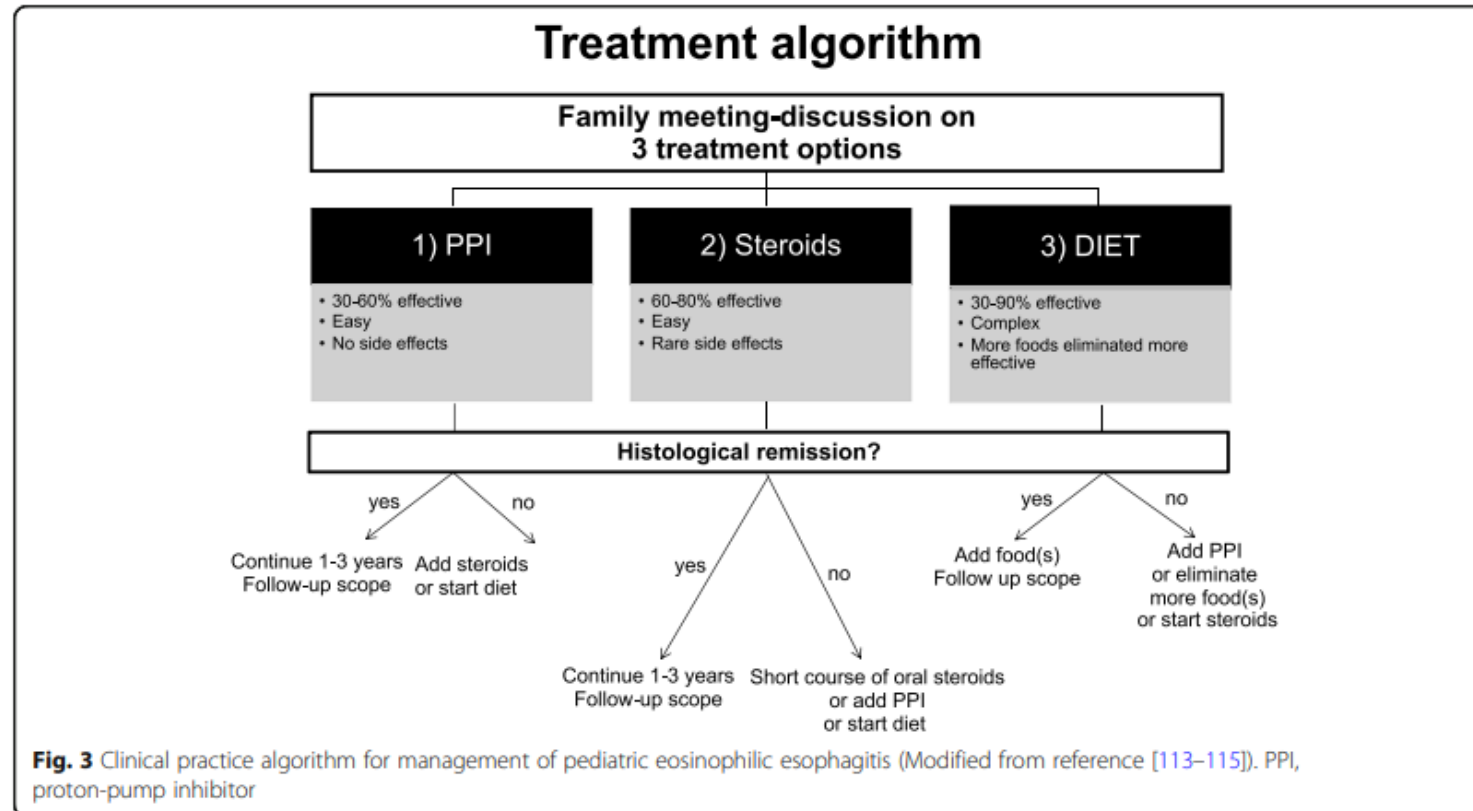
- Food elimination (Empiric)
 - Six food elimination
 - Four food elimination
- Allergy testing based elimination
- PPI
- Topical steroids
- Dupilumab

Eosinophilic Esophagitis - Management

Table 2 Characteristics of dietary approaches in the treatment of pediatric eosinophilic esophagitis

Dietary approach	Definition	Indication	Success rate	Advantages	Disadvantages
Elemental diet	Diet consisting of amino acid-based formula	In patients with multiple allergies, growth stop, severe disease unresponsive to therapy or unable to follow a highly restrictive diet	90%	Allergen-free Nutritionally complete	Taste (feeding tube could be needed) Expensive Age relevance Elimination of all foods Negative impact on the quality of life
Empiric elimination diet or six-food elimination diet	Elimination of "big six" major food allergens from the diet (milk, egg, wheat, soy, peanut/tree nut, and fish/shellfish)	In the absence of specific allergic sensitization to foods	72%	Allergy testing not needed	Several eliminations could be unnecessary Only four foods may be essential Expensive Nutritional deficiency
Targeted diet	Elimination of foods with a positive response to allergy testing	Strongly suspected food allergy based on the clinical history and positive allergy testing	45–77%	Food specificity Nutritional preservation	Different testing precision and technique among centers Low negative predictive value of milk testing Unnecessary avoidance if sensitization without clinical allergy

Eosinophilic Esophagitis - Management



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Thank you

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