

1:30 – 2:30 pm

**Eosinophilic Esophagitis:
Concepts and Controversies**

SPEAKER
Nirmala Gonsalves, MD

Presenter Disclosure Information

The following relationships exist related to this presentation:

- ▶ Nirmala Gonsalves, MD: Speaker for Nutritia.

Off-Label/Investigational Discussion

- ▶ In accordance with pmcME policy, faculty have been asked to disclose discussion of unlabeled or unapproved use(s) of drugs or devices during the course of their presentations.

**Eosinophilic Esophagitis:
Concepts and Controversies**

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Overview

- Diagnostic Criteria of EoE
- Clinical Features of EoE
- PPI-Responsive Esophageal Eosinophilia
- Treatments
 - Drugs, Diet & Dilation
- Role of Maintenance therapy
- Management Algorithm
- Eosinophilic Gastroenteritis

Diagnostic Criteria

- EoE is a clinico-pathologic disease
 - Symptoms related to esophageal dysfunction
 - Pathologically, 1 or more biopsy specimens must show eosinophil-predominant inflammation
 - 15 eosinophils/hpf (peak value) is considered a minimum threshold for a diagnosis of EoE.
 - Isolated to the esophagus
 - Ruling out other causes for eosinophilia
 - Multiple biopsies need to be obtained and evaluated for all pathologic features of EoE
 - Response to treatment is supportive of the diagnosis

Dellon E, Gonsalves N, Hirano I et al. AJG 2013 May;108(5):679-92

**Prevalence of Eosinophilic Esophagitis
in Children and Adults**

Year	Olten County, Switzerland (Adults)	Hamilton County, Ohio (<20yo)
1989	0	0
1990	0	0
1991	0	0
1992	0	0
1993	0	0
1994	0	0
1995	0	0
1996	0	0
1997	0	0
1998	0	0
1999	0	0
2000	0	0
2001	0	0
2002	0	0
2003	0	0
2004	0	0
2005	0	0
2006	0	0
2007	0	0

Prevalence EoE:
4.5/10,000 Olten County, Switzerland (Adult)
10.4/10,000 Hamilton County, Ohio (Peds)

Noel, Rothenberg N Engl J Med 351:9 2005, 940-1
Straumann J Allergy Clin Immunol. 115(2) 2004, 418-19.

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Clinical Presentation in Adults

- Male Predominant 3:1
- Presents in 3rd/4th decade
- Atopic History (70-80%)
- Caucasian predilection
- Family History of EoE or atopy
- *Dysphagia* **
- *Food impaction* (33-54%)
- Heartburn/reflux
- Chest pain

Furuta et al. Gastroenterol.2007 Oct;133(4):1342-63.

Furuta G, Liacouras C, Hirano I et al. JACI. 2011

Dellon E, Gonsalves N, Hirano I et al. AJG 2013 May;108(5):679-92

How do we diagnosis EoE?

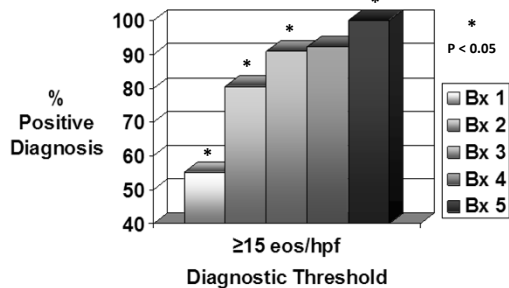
- Gold standard is esophageal biopsy

Histologic Features of EoE

- Superficial layering
- Eosinophilic microabscess
- Spongiosis
- Epithelial hyperplasia
- Degranulation
- Lamina propria fibrosis

How many biopsies do you need?

Take 2-4 biopsies in both the proximal and distal esophagus to help maximize sensitivity



Gonsalves et al. Gastrointest endosc 2006;64(3)313-9

How many biopsies do you need?

Biopsies should be obtained from antrum and duodenum of all children and adults with gastric symptoms or endoscopic abnormalities

Gonsalves et al. Gastrointest endosc 2006;64(3)313-9

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Esophageal Eosinophilia Responding to PPI

- Classic sxs of reflux
- Erosive esophagitis or Barrett's on endoscopy
- Eosinophilia on bx resolves with PPI
- **Likely GERD**
- Symptoms and endoscopic features suggestive of EoE
- Symptoms and pathology resolve with PPI
- **Likely PPI-REE**

PPI Responsive Esophageal Eosinophilia

- 35 adult patients with EEI tx with rabeprazole 20 bid
 - 75% improvement
 - 50% EoE profile
 - 30% who responded had normal pH study

NMH experience: 30-40% improvement after PPI tx

Molina-Infante. Clin Gastro Hep 2011.

PPI Responsive Esophageal Eosinophilia

- 35 adult patients with EEI tx with rabeprazole 20 bid
 - 75% improvement
 - 50% EoE profile
 - 30% who responded had normal pH study

Diagnostic criteria necessitate treatment of esophageal eosinophilia with double dose PPI for 8 wks followed by repeat EGD

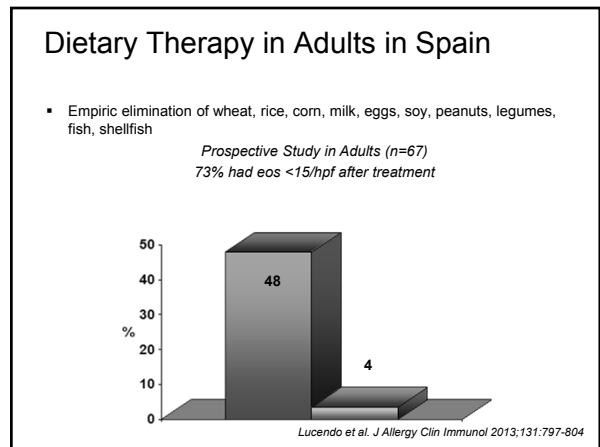
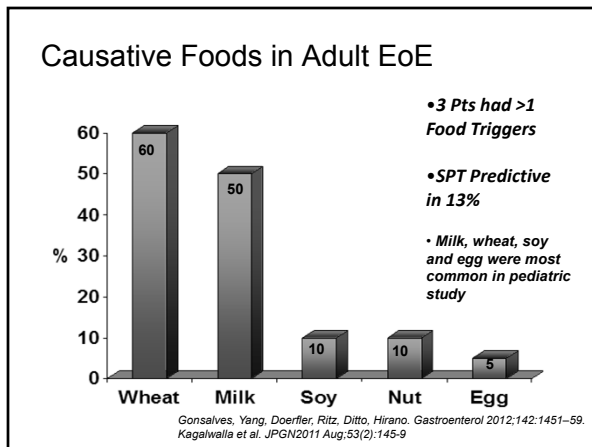
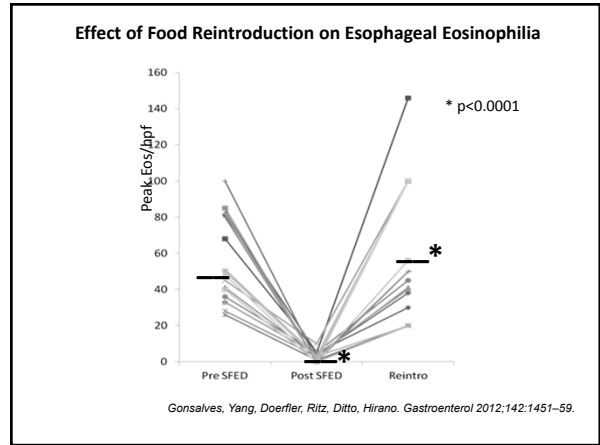
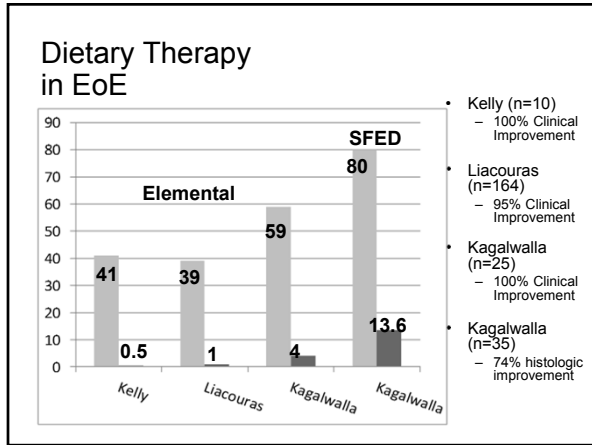
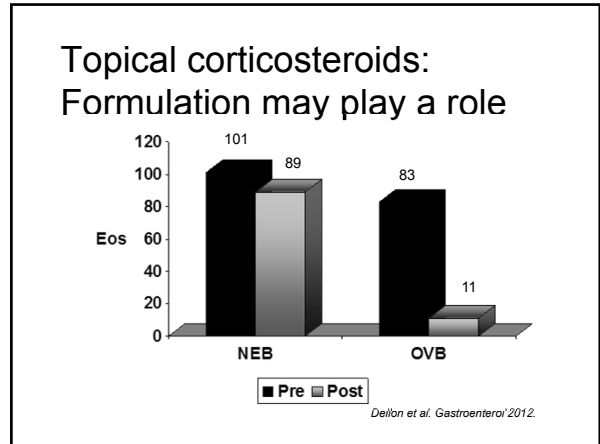
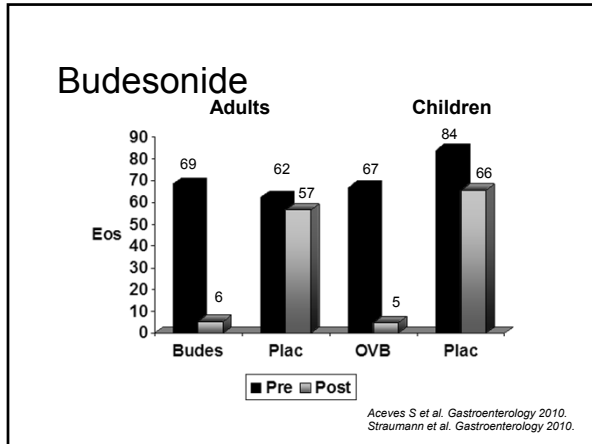
Molina-Infante. Clin Gastro Hep 2011.

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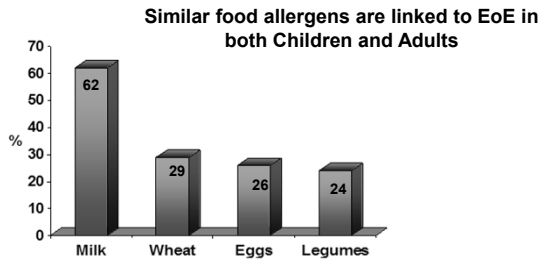
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Medical Treatment: *Swallowed topical corticosteroids*

- **Swallowed fluticasone**
 - 440ug-880ug bid
- **Oral viscous budesonide**
 - 1mg bid
 - Mix w/ 10 packets sucralose



Causative Foods in Adult EoE in Spain



Lucendo et al. J Allergy Clin Immunol 2013;131:797-804

Esophageal Dilation

- Dilations work but will need to be repeated
- Does not alter the underlying inflammation
- May cause significant disruption of the mucosa

Schoepfer A. Am J Gastroenterol. 2010 May;105(5):1062-70
Dellon E, Gonsalves N, Hirano I et al. AJG 2013 May;108(5):679-92

Esophageal Dilation

Esophageal dilation, approached conservatively, may be used as an effective therapy in symptomatic patients with strictures that persist despite medical or dietary therapy.

ACG Guidelines 2013

Schoepfer A. Am J Gastroenterol. 2010 May;105(5):1062-70
Dellon E, Gonsalves N, Hirano I et al. AJG 2013 May;108(5):679-92

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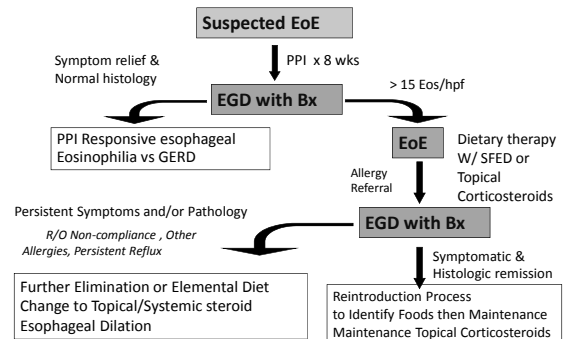
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Complications and Outcomes in Adults

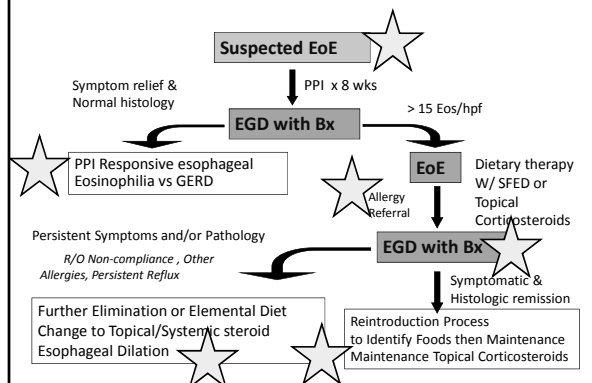
- Chronic, relapsing condition- persistent eosinophilia if left untreated
- Stricture Formation (11-31%)
- Food impaction (30-55%)
- Small caliber (10%)
- Perforation
- Impact on QOL

Schoepfer A. Gastroenterology. 2013 Dec;145(6):1230-6.e1-2
Straumann A. Gastroenterology. 2003 Dec;125(6):1660-9.

Suggested Algorithm for Management Of EoE



Advances in EoE: 2016?



Acknowledgements

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