Eosinophilic Esophagitis (EoE)

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Case Study
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Introduction

This case study describes the care provided for a 38 year old male who presented to the GI practice with dysphagia and was diagnosed with EoE.
Encounter One

Initial Consultation
Subjective: Background information

• History
  ▫ CC: Dysphagia
  ▫ HPI: 38 y/o WM c/o dysphagia x 5 years with worsening symptoms over the past 4 months. States that solid foods “hang up” as he points to his mid-sternal region. Denies any dysphagia with liquids. Denies any heartburn, reflux, dyspepsia, odynophagia, nausea or vomiting. No history of food allergies. There is history of asthma and allergic rhinitis which is exacerbated with mowing grass and working in the yard. No prior history of endoscopy.
Subjective: Background information

- PMH: Asthma, allergic rhinitis
- PSH: Tonsillectomy, sinus surgery
- FH: Negative for GI disease or malignancy.
- SH: Married, 2 children. Denies history of tobacco use. Reports history social of alcohol use. No prior history of blood transfusions, illicit drug use or tattoos.
- Allergies: NKDA/NKFA
- Medication: Albuterol MDI prn, OTC Zyrtec.
Subjective: ROS

- Constitutional: No fever, fatigue, night sweats, weight loss.
- HEENT: No vision changes, headaches, hearing loss.
- Respiratory: Positive for cough and wheezing. Denies SOB.
- Cardiovascular: No chest pain or palpitations.
- Vascular: Negative for claudication.
Subjective: ROS

- **Gastrointestinal:** No diarrhea, constipation, abdominal pain, melena or hemochezia.
- **Genitourinary:** No dysuria or hematuria.
- **Neuro/Psychiatric:** No dizziness, no emotional disturbances.
- **Dermatologic:** No unusual rashes.
- **Musculoskeletal:** No joint pain or swelling; no weakness; normal gait.
- **Hematology:** No bruising or bleeding.
Objective: Physical exam

- **Vitals:** BP 128/80, HR 82, RR 16, T 98.2, wt 220, ht 5’10”.
- **Constitutional:** No apparent distress. Well nourished and well developed.
- **Eyes:** Pupillary reaction is normal and EOM intact.
- **Nose / Mouth/Throat:** No nasal deformity. Mucous membranes normal. Tongue and throat appear normal. No mucosal lesions.
- **Lymphatic:** Normal, no palpable cervical or inguinal adenopathy.
Objective: Physical exam

• Respiratory: Normal symmetric chest, lungs are clear to auscultation.
• Cardiovascular: No murmurs and no extra sounds.
• Abdomen: soft, non-tender without organomegaly or masses.
• Integumentary: No impressive skin lesions present.
Assessment: Impression

- Solid food dysphagia with symptoms suggestive of Eosinophilic Esophagitis (EoE) given history of asthma and environmental allergies. Other considerations include peptic stricture and esophageal carcinoma (highly unlikely due to the absence of weight loss and risk factors (smoking)).

- ICD -9 : 787.20: Dysphagia, unspecified
Plan: Diagnostic test

- EGD/Dilatation with mucosal biopsies
Encounter Two

Endoscopy (Day following initial consultation)
Diagnostic Test: EGD findings

- **E** - Grade 1 esophagitis with multiple rings. Dilated with a 48 French Maloney dilator
- **G** - Moderate gastritis
- **D** - Mild duodenitis

Richter, J. (2007)
Discussion Question?

- Is there an increased risk for esophageal perforation with esophageal dilation in patients with EoE?
Dellon et al. (2010) conducted a retrospective study to assess the safety of esophageal dilatation in EoE. 130 EoE cases- 70 dilations were performed in 36 patients- 5 complications- (2 deep mucosal rents & 3 episodes of chest pain) – No perforations. Symptom response rate 83%
Encounter Three

Pathology Review (5 days after initial consultation, 3 days after endoscopy)
Pathology

- **Diagnosis**
  - Esophagus, biopsy: EOSINOPHILIC ESOPHAGITIS

- **Comments**
  - Sections reveal esophageal mucosa with basaloid hyperplasia and increased mucosal eosinophils. In areas, eosinophil number is greater than 25 per HPF compatible with changes of eosinophilic esophagitis. Viral inclusions are not identified and microorganisms are not identified.
Discussion Question?

- What are the treatment options for Eosiniophilic Esophagitis?
  - There are no evidence based guidelines for the treatment of EoE.
Plan

- Fluticasone inhaler 220 mcg 4 puffs swallowed (not inhaled) twice x 2 months
- Proton Pump Inhibitor
- Education
- Follow-up in 1 month

Considerations:
- Referral to allergist
Konikoff et al (2006) conducted a randomized, double blind, placebo-controlled trial of swallowed fluticasone in pediatric patients with EoE. 50% of the patients treated with fluticasone achieved histological remission compared to the 9% of placebo group.
Arora, Perrault & Smyrk (2003) conducted a retrospective chart review of 21 patients (ages 28 to 55) diagnosed with EoE that were treated with swallowed fluticasone for 6 weeks. All patients had resolution of dysphagia for a minimum of 4 months. There was not association of GERD with these patients.

Centre for Evidence-Based Medicine (CEBM), level 2b
Other treatments

- Other Pharmacological options
  - Viscous suspension of budesonide (Pulmicort Respules) - mixed with sucroloose (Splenda) and swallowed
  - Systemic steroids
Case Discussion

Questions?
Clinical algorithm for suspected eosinophilic esophagitis

Unexplained dysphagia or food impactions

EGD with proximal and distal esophageal biopsies

Eosinophilic esophagitis

Inhaled or oral steroids

- No response
  - Montelukast
    - No response
    - PPIs / dilatation

PPIs / dilatation

- No response
  - Steroids and/or Montelukast

? Role of allergy testing
? Importance of peripheral eosinophilia
? Role of endoscopic follow-up

Richter, J. (2007)
Reference


