**Workshop #1: Approach to Dysphagia**
**Tutor Guide**

**A 28 year old man describes intermittent dysphagia for solid foods. Bulky foods like meat are the typical items that will cause a sensation of "sticking" in the esophagus, referred to the sternal notch. Usually he is able to wash the bolus down with gulps of water, but last weekend at a steakhouse a piece of steak became impacted in the esophagus and he was unable to swallow water or even saliva. His wife drove him to the ER, but the bolus spontaneously passed in the waiting room and he left without being seen.**

**He denies heartburn or weight loss. He has mild exercise induced asthma and uses Ventolin when playing sports, but is on no other medications.**

**1) What is your differential diagnosis for dysphagia in this patient?**

- Outline general approach to dysphagia
    - Oropharyngeal vs Esophageal
    - Mechanical vs Motor
    - Progressive vs intermittent
    - History of GERD, weight loss

-In this patient, intermittent solid food dysphagia, may consider Schatzki ring, eosinophilic esophagitis
-What if he had heartburn symptoms as well? May want to discuss role of PPI trial prior to referral for endoscopy

**2) What investigations would you order for this patient?**

-EGD with biopsies
-Barium not likely to be helpful
-May want to discuss role of PPI trial (PPI-responsive eosinophilia)

**The patient undergoes endoscopy which shows a ring-like appearance to the esophagus. Biopsies from the upper, mid and distal esophagus all show 20 eosinophils/hpf.**

**3) What are the risk factors for this condition?**

-Male gender
-Can present in childhood (feeding difficulty, vomiting, abdominal pain, "refractory GERD"), adolescence (dysphagia), adulthood (dysphagia, chest pain, food impaction)
-Atopic conditions: food allergy, asthma, eczema, rhinitis, environmental allergy
-Diagnosis more common in northern , dry, climates (different aeroallergens, forced air heating, relationship to UV exposure/Vit D levels?)
-Diagnosis more common in spring (correlates with grass pollen counts)

**4) How is the diagnosis made?**

-Need biopsies! >15 eos/hpf
-exclude other causes of esophageal eosinophilia
    -GERD
    -drugs
    -celiac
    -Crohn's
    -systemic hypereosinophilic syndrome
    -PPI responsive eosinophilia

**5) What treatment options are available for this condition?**

-Proton Pump inhibitor
    -GERD can cause eosinophilia
    -GERD can overlap with EoE (acid damage to tight junctions→increased permeability to antigens)
    -some people (up to 30%)with NO GERD on pH study still respond to PPI
        -inherent anti-oxidant effect of PPI?
    -2011 Consensus guidelines: PPI 20-40mg qd/bid for 8-12 weeks
-Cromolyn, Leukotriene receptor antagonists
    -NOT effective
-Topical Steroids
    -fluticasone MDI 440-880ug bid
    -viscous budesonide 1mg bid
        -recipe: Pulmocort 0.5 mg respules, mix w/5 packets Splends for each respule to make a slurry with enough volume to coat esophagus
        -don't eat or drink for 30 min
        -rinse mouth to reduce risk of thrush
    -treat 6-8 weeks
    -effective in inducing remission (75%) but recurrence is the norm
    -maintenance therapy: 0.25mg budesonide daily
-Endoscopic dilation
    -medications not as effective at improving dysphagia in adults compared to kids (especially if chronic symptoms >7 years)
    -medications won't help underlying fibrosis
    -complication rates in recent series 0.8% perforation, 5% chest pain
    -does not treat underlying inflammation
    -some patients prefer periodic dilation to regular use of medications or diet modification

**6) The patient wants to know if his condition can be treated with diet. What do you tell him?**

-elemental diets: successful in children (98% improvement in histology and symptoms), but expensive, unpalatable, often administered by feeding tube

-6 Food Elimination Diet

-eliminate milk, eggs, soy, wheat, nuts, seafood

-effective in kids (97% symptom response, 74% histologic), and adults (symptom response 94%, histology 64%)

-can gradually re-introduce allergens to liberalize diet

-need guidance of a dietician

-symptoms recur when allergens re-introduced, so diet change is lifelong

-skin prick does not predict causal agents

-2011 Consensus Guideline "diet therapy should be considered in children and all motivated adults"

References:

1) LIacouras et al 2011 Consensus Guidelines, J Allergy Clin Immunol 2011