Low Grade Eosinophilic Eosinophilia

Background

- **Knowledge gap:** EoE diagnosis requires ≥15 eosinohils/ high power field. What about lower levels eg 10? No EoE? GERD?
  - attenuated / partially treated (concomitant PPI use, systemic steroids, nasal steroids, dupixent/related medications, seasonal variation, avoiding certain foods eg vegan, etc…)
  - Patchy disease, bx adequacy.

- **Current data:**
  - Only one retrospective study is available showing 36% of a subgroup who underwent repeat endoscopy and biopsy for persistent symptoms ultimately received a diagnostic histology (>15 per hpf)
    - (outdated, did not look into all confounders)
  - BSG guidelines recommend stopping PPI for 3 weeks before repeat EGD if EoE is still suspected.
  - UKY Abstract (2020)

RETROSPECTIVE REVIEW OF MILD ESOPHAGEAL EOSINOPHILIA AT A SINGLE ACADEMIC CENTER: CHARACTERISTICS AND CLINICIANS' ATTITUDE TOWARDS MANAGEMENT Nishant Tripathi, Shadi A. Qasem, Mazen Elsheikh, Olalekan Akanbi, Niki Koirala, Bahaaeldeen Ismail

- describe the demographic, clinical and endoscopic characteristics describe clinicians' attitude towards management
- natural history (do they develop EoE later)?

- Inclusion:
  - eos 1-14/HPF along with esophageal symptoms
  - 1/2010 -12/2018.
  - prior EoE diagnosis were exclude

Results

- 62.3% reported dysphagia
- 53.2% had both dysphagia and EGD changes of EoE

- Repeat EGD & Biopsy Outcomes: Available in 15/77 patients.
  - EoE endoscopic findings: 4/15 patients.
  - Resolution of eosinophils: 12/15 patients.
  - Eosinophils >15/HPF: Only 1 patient.

- Clinical follow up:
  - 53.7% of patients managed by GI
  - 23.5% (8 patients) of those managed by GI were suspected to have EoE or PPIREE.
  - None of those seen by PCPs were suspected to have EoE or PPIREE.

- Characteristics of suspected EoE/PPIREE:
  - Younger (p=0.068).
  - Male (p=0.045).
  - Solid dysphagia (p=0.039).
  - Furrows on EGD (p=0.019).

COMPARISON BETWEEN PATIENTS IN POTENTIAL EOE GROUP AND LOW LIKELIHOOD GROUP				
Characteristics, Signs and Symptoms		**Potential EoE group (N= 41)**	**Low likelihood group (N=36)**	**P- value**
Gender (%)	Males	31 (75.6)	18 (50.0)	0.032
Age, mean (sd)		41.83 (13.09)	45.81 (16.12)	0.236
BMI, mean (sd)		28.98 (5.79)	29.24 (6.77)	0.865
Ethnicity (%)	White	40 (97.6)	27(81.8)	0.052
	Others	1 (2.4)	6(18.2)	
Past Medical History (%)	Allergic rhinitis	11 (26.8)	6 (16.7)	0.410
	Asthma	6 (14.6)	10 (27.8)	0.173
	Eczema	6 (14.6)	4 (11.1)	0.742
	Atopy	16 (39)	14 (38.9)	1.000
Home Medications (%)	Inhaled nasal steroids	5 (12.2)	10 (27.8)	0.148
	Systemic steroids	1 (2.4)	2 (5.6)	0.596
	Leukotriene inhibitors	4 (9.8)	4 (11.1)	1.000
	Proton pump inhibitors	28 (68.3)	24 (66.7)	1.000
Symptoms (%)	Heartburn (%)	23 (56.1)	29 (80.6)	0.029
	Esophageal dilation (%)	8 (19.5)	5 (13.9)	0.557
	Solid dysphagia	39 (95.1)	10 (27.7)	0.001
Lab Findings	Peripheral eosinophilia	3 (7.3)	4 (11.1)	0.699
Endoscopy and Biopsy Findings (%)	Rings	25 (60.9)	13 (36.1)	0.029
	Furrows	14 (34.1)	10 (27.7)	0.547
	Exudates	9 (21.9)	1 (2.7)	0.012
	Edema	5 (12.2)	4 (11.1)	0.882
	Esophageal dilation	8 (19.5)	5 (13.9)	0.557
	Eos in stomach, small bowel and colon	2 (5.9)	4 (13.3)	0.407
Biopsy Sites (%)	Mid and lower esophagus (both)	30 (76.9)	22 (62.9)	0.212
	Mid, lower or unspecified esophagus (single)	9 (23.1)	13 (37.1)	

Next step

- **Goal:**
  - more data 2018-2025
  - Comment on natural hx
  - Look into diet, number of bx obtained
  - DDW/ACG abstract then manuscript

- **Tasks:**
  - Renew the IRB (retrospective)
  - Update literature review
  - Identify patients (pathology database)
  - Collect data from chart (office notes, endo, pathology)
  - Analysis
  - ?discuss with pathology using EoE histologic scoring system to see if this provides additional clues.