Eosinophilic Esophagitis is Associated with an Increased Prevalence of Inflammatory Bowel Disease
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Background
Eosinophilic esophagitis (EoE) is an increasingly prevalent chronic disease thought to arise from an allergy/immune-mediated process. Reports of patients with EoE and concurrent inflammatory bowel disease (IBD) have suggested that there might be an association between these two conditions. However, the possibility of coincidental occurrence cannot be excluded when only case reports or small series are analyzed. Subtle association, particularly between relatively uncommon conditions, can only be unveiled by analyzing “big data.”

Aims
The purpose of this study was to use a large cohort of patients who had simultaneous upper and lower endoscopy (“same-day bidirectional endoscopy”) to test the hypothesis that inflammatory bowel disease is more common in patients with levels of esophageal eosinophilia that meet the histopathologic criteria for the diagnosis of eosinophilic esophagitis (EoE).

Methods
We used the Miraca Life Sciences database to extract histopathologic, demographic, and clinical information from all patients who had simultaneous esophageal and ileocolonic biopsies between 1/2008 and 6/2012. After excluding those with a history or diagnosis of GI cancer or surgery, patients were stratified in 3 groups according to the numbers of eosinophils per high-power field (eos/HPF) in their esophageal squamous mucosa (<15, 15-60, >60).

Then, the relative prevalence of ulcerative colitis (UC) and Crohn’s disease (Cro) was calculated for each group of esophageal eosinophilia.

Results
There were 48,947 unique patients with both esophageal and ileocolonic biopsies; 47,150 (median age 58 years; 64% M) had <15 eos/HPF in the esophageal squamous epithelium, and 1,797 had >15 eos/HPF (median age 51 years; 64% M).

The prevalence of ulcerative colitis and Crohn’s disease in each group of patients stratified by numbers of esophageal eosinophils are depicted in Figure 2.

Study Highlights
• Patients with increased esophageal eosinophils, and particularly those with >60 eos/HPF are almost twice as likely to have concurrent IBD as patients with a normal esophagus.
• This increase is most evident in patients with UC.
• A section bias for patients who undergo same-day bidirectional endoscopy cannot be excluded. However, the possibility that EoE and IBD share some common immunopathogenetic mechanisms is intriguing and deserves further investigation.

References