Name of Trainee: Eric Gershon (eric.gershon@yale.edu)
Mentors: Uma Phatak, MD Uma.Phatak@yale.edu, Nan Du, MD Nan.Du@yale.edu, Dinesh Pashankar, MD Dinesh.Pashankar@yale.edu
Type of Trainee: Resident

Title: Under the microscope: Avoiding Unnecessary Biopsies during Upper Endoscopy
Eric Gershon, MD; Nan Du, MD; Debra Okafor, MD; Dinesh Pashankar, MD; Uma Padhye Phatak, MD
Department of Pediatrics, Yale University School of Medicine, New Haven, Connecticut.

Background: Current endoscopy guidelines recommend that greater than 1 duodenal bulb and 4 distal duodenal biopsy specimens should be collected in order to increase the chances of diagnosing celiac disease correctly in patients. Although there are no official recommendations for performing duodenal bulb biopsies when there is no concern for celiac disease, these biopsies are still commonly performed.

Methods: We performed a retrospective chart review for all patients at Yale New Haven Children’s Hospital who underwent upper endoscopy from January 2016 to December 2018. In this review, we collected patients’ demographic data, clinical symptoms that led to their presentation, celiac serologies, and upper endoscopy indications. Frequency statistics were calculated for testing variables. Finally, we performed further analysis to determine the utility of the duodenal bulb biopsy, when there was no clinical or biochemical concern for celiac disease in patients with grossly normal duodenal bulb.

Results: Data from 507 patients who had endoscopies were analyzed. 375 had no clinical or biochemical evidence of celiac disease with grossly normal appearing duodenal bulbs on biopsy. Of these patients, 39 (10%) had abnormal bulb biopsy. Histologic findings included: inflammation with mildly increased intraepithelial lymphocytes or mild villous blunting. Out of those 39 patients, 8 patients were diagnosed with IBD (21%) and 3 patients were diagnosed with EOE (8%) based on other endoscopic and histologic findings. In the other patients, 33% would have similar distal duodenal biopsy findings. Further analysis of the remaining patients revealed that there were 15 patients who exclusively had biopsy findings in the bulb (48%). All but three were given presumed diagnosis of GERD based on these non-specific findings and treated with PPI. Of the 15 patients, 1 had a repeat endoscopy which showed resolution of pathology.

Conclusion: Our study shows that there is a lack of diagnostic value for the duodenal bulb biopsies if there is no clinical or biochemical concern for celiac disease with grossly normal duodenal biopsies. Discontinuing the common practice of reflexively obtaining duodenal bulb biopsies may reduce costs and time during endoscopy.

Word Count: 336