Age and Race Have A Significant Impact on Helicobacter Pylori Infection Risk

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INTRODUCTION

The objective of this study is to identify current patient risk factors associated with Helicobacter pylori (H. pylori) infection. During esophagogastroduodenoscopies (EGD), biopsies are routinely taken to be tested for H. pylori. This infection plays a major role in the development of gastritis, peptic ulcers, gastric adenocarcinoma, and lymphomas. However, recent data is lacking for patient factors related to H. pylori infection.

METHODS

A prospectively collected retrospective analysis was conducted on all patients undergoing EGD with biopsy at a single institution between 2014 and 2015. Logistic regression and χ^2 analysis were utilized. Data are presented as median (mean +/- standard deviation).

RESULTS

Five hundred and nineteen patients from Manatee Memorial Hospital underwent EGD with biopsies. H. pylori infection was found in 53 patients (10%). The most common preoperative diagnosis in patients without H. pylori was abdominal pain (41%), followed by acid reflux (33%), other (24%) and ulcer disease (2%). Similarly for H. pylori patients, the most common preoperative diagnosis was also abdominal pain (54%) and acid reflux (25%) other (19%) and ulcer disease (2%). The majority of biopsies for patients without and with H. pylori demonstrated inflammation (esophagitis/gastritis/duodenitis) with 98% and 99% respectively followed by ulcer disease (2% vs 1%). Patients with H. pylori were found to be significantly younger, age 52 (51 +/- 16) compared to those without H. pylori, age 58 (59 +/- 15) ($p < 0.00$) [Figure 1]. Patients with H. pylori were also more likely to be black with 10/50 (20%) black patients having H. pylori compared to white patients with 34/429 (8%) ($p < 0.00$) [Figure 2]. There was no significant risk associated between H. pylori infection with personal history of peptic ulcer disease, smoking, diabetes, anticoagulation use, BMI, gender or alcohol use.

CONCLUSIONS

Younger age and black race were significantly associated with H. pylori infection. Patients with H. pylori infections were most likely to have a preoperative diagnosis of abdominal pain and a postoperative diagnosis of inflammation. We did not find a significant association between H. pylori infection and peptic ulcer disease.

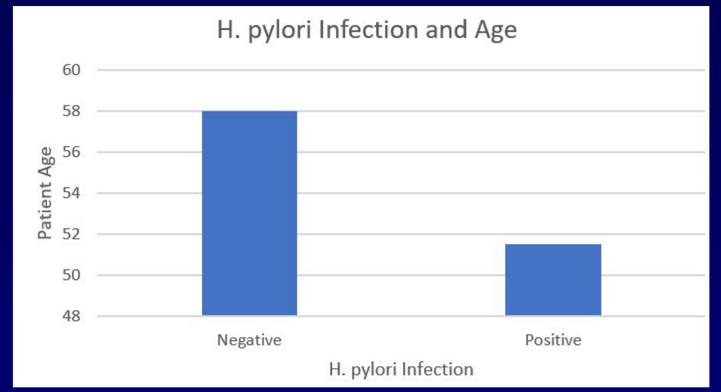


Figure 1: H. pylori infection by age.

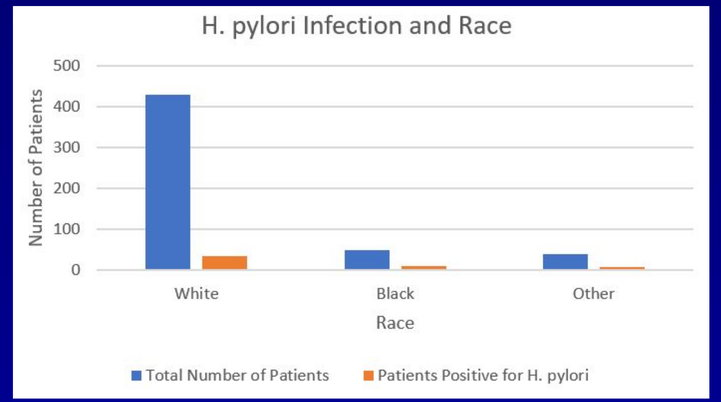


Figure 2: H. pylori infection by race.