

## EFFECT OF HELICOBACTER PYLORI INFECTION ON THE OCCURRENCE OF ESOPHAGEAL REFLUX DISEASE

Vesna Brzački<sup>1,2</sup>, Danijela Benedeto-Stojanov<sup>1,2</sup>

<sup>1</sup>University of Niš, Medical Faculty, Niš, Serbia

<sup>2</sup>Clinic of gastroenterology and hepatology, Clinical Center Niš, Serbia

Contact: Vesna Brzački  
Bul.dr Zoran Djindjić 37/52, 18000 Niš, Serbia  
E-mail: brzackiv@gmail.com

The role of *Helicobacter pylori* (*H. pylori*) in the emergence of gastroesophageal reflux disease (GERD) is quite unclear. It is suggested that *H. pylori* has the protective role in esophageal disease development. The aims of the present study were to analyze the frequency of *H. pylori* infection in patients with different forms of GERD and comparison of incidence between the different groups, relation between the degree of esophagitis and *H. pylori* infection in patients with ERD, histological changes in the esophagus and cardia after eradication therapy in patients of both groups who were positive for *H. pylori*, and to compare ERD and NERD after conducting eradication therapy for *H. pylori* infection. Prospective study conducted in the Clinic of Gastroenterology, Clinical Center in Niš, included 90 patients with symptoms of GERD. Patients were divided into two groups according to whether they have endoscopic signs of gastroesophageal reflux (ERD group), or absence of signs of reflux (NERD group). Two biopsies of the antrum and corpus, and 4 esophageal biopsies within 2 cm of the Z line were performed in all patients during the proximal endoscopy. In the gastric mucosa biopsy, we investigated the presence of *H. pylori* infection as well as histomorphological changes by hematoxylin eosin and modified Giemsa method. The degree of esophagitis was determined by the Los Angeles classification. In *H. pylori* positive patients, eradication therapy was administered for a period of ten days. After eradication of *H.pylori* and treatment of reflux disease for 8 weeks with proton pump inhibitors, esophagus biopsy was repeated. In the antrum, *H. pylori* was positive in 22 (44.89%) subjects of the ERD group compared to 30 (66.66%) of the NERD group. In the corpus, *H. Pylori* was positive in 18 (40.00%) subjects of the ERD group compared to 24 (53.33%) subjects of the NERD group, and no statistical significance was found. In the ERD group, there was no difference in the presence or absence of *H. pylori* infection and severity of esophagitis. After eradication, in both groups of patients, there was a statistically significant improvement in histological findings ( $\chi^2= 22.26$ ;  $p = 0.00001$ ). After the treatment in the ERD group, there was statistically significant decrease in endoscopic findings of esophagitis. After the treatment in the group of subjects with NERD, three patients had endoscopic findings of esophagitis. Conclusion: In patients with GERD, a long-term anti secretory therapy should be implemented and *H. pylori* needs to be tested and eradicated. *H. pylori* positive status is rarely seen together with GERD, and if it is, it is of lower degree.

*Acta Medica Medianae* 2018;57(4):60-66.

**Key words:** GERB ERB, NERB, *H. pylori*