

Comparison of diagnostic accuracy of serologic test with histology for *Helicobacter pylori* in diabetic patients with dyspepsia

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*Abstract

Background: *Helicobacter pylori* infection is a major cause of gastric diseases in humans that its rapid, simple and low cost diagnosis is important. Diabetes mellitus increases the risk of *Helicobacter pylori* infection.

Objective: The aim of this study was to compare diagnostic accuracy of serologic test with histology for *Helicobacter Pylori* in diabetic patients with dyspepsia.

Methods: This analytical study was conducted on 183 diabetic patients with dyspepsia referred to Imam Hossain hospital of Shahroud in 2014. All patients underwent endoscopy. Standard biopsy was performed as gold standard which included six gastric and duodenal samples. Simultaneously, blood samples were taken for serologic test. The presence of *Helicobacter pylori* was examined using Giemsa staining in histological study. Anti-*Helicobacter pylori* IgG was measured using ELISA in serological study. Sensitivity, specificity, and positive and negative predictive values were calculated. Data were analyzed using Chi-square test.

Findings: Of 183, 104 patients (57.1%) were positive for *Helicobacter pylori* in serological study and 151 patients (82.5%) were positive in histological study. The sensitivity, specificity, positive predictive value and negative predictive value of serologic test for diagnosis of *Helicobacter pylori* were 64.2%, 78.1%, 93.3%, and 31.6%, respectively. IgG cut point for diagnosis of *Helicobacter pylori* was set to be 1.4 (sensitivity: 92.4% and specificity: 75.3%).

Conclusion: The serologic test can be used as screening test for *Helicobacter pylori* in diabetic patients with regards to relatively high sensitivity and specificity as well as its simplicity, rapidity, and low price.

Keywords: *Helicobacter Pylori*, Diabetes Mellitus, Serologic Tests, Histology, Sensitivity and Specificity

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