

2nd International Congress on Bacteriology & Infectious Diseases

November 17-19, 2014 DoubleTree by Hilton Hotel Chicago-North Shore, USA

Association between O blood group and *Helicobacter pylori* infection: A systematic review and meta-analysis

Debebe Shaweno and Deresse Daka
Hawassa University, Ethiopia

Introduction: *Helicobacter pylori* (*H. pylori*) infection is associated with several diseases including gastritis, gastric ulcer, pancreatic cancer and iron deficiency anemia. Different epidemiological studies reported controversial findings on the association between O blood group and *H. pylori* infection.

Methods: This meta-analysis was conducted to verify the association between *H. pylori* infection and O blood group. Random-effects model was used to pool data on the association between *H. pylori* infection and O blood group in 18 selected studies. Der Simonian Laird statistic was used to estimate the effect size. Stability of the pooled estimates was assessed by sensitivity analysis. Publication bias was assessed by using funnel plot and Egger's test.

Results: Fourteen of the 18 included studies reported no significant association between *H. pylori* infection and O blood group. Among ten reviewed studies which were conducted among dyspeptic patients, four showed statistically significant association. However, none of six studies conducted among asymptomatic patients demonstrated statistically significant association. The pooled effect size showed no statistically significant association between O blood group and *H. pylori* infection (odds ratio (OR)=1.18, 95% CI [0.95, 1.48]). However, the pooled effect size under stratified meta-analysis turned to be statistical significant among studies conducted in dyspeptic patients (OR=1.44; 95% CI [1.03, 2.01]).

Conclusion: The analysis did not show statistically significant association between *H. pylori* infection and O blood group among all study participants. However, statistically significant association between *H. pylori* infection and O blood group was observed in a subset of studies conducted among dyspeptic patients. Caution should be made while interpreting the finding as the severity.

debebeesh@gmail.com