

Leja M, Chiu HM, Funka K, Jonaitis L, Kiudelis G, Kupcinskas L, Sudraba A, Tolmanis I, Lin JT. The value of pepsinogen II in the detection of active *H.pylori* infection. *Helicobacter* 2008; 13(5):407.

Objectives

The aim of the study was to test the usefulness of pepsinogen II (PgII) as a potential tool for distinguishing between current and past *H.pylori* infection in serology positive subjects. We hypothesised that positive serology in combination with increased PgII is indicative for present, but with low PgII - for past infection.

Material and methods

241 patients (pts) aged 55 or above from Latvia (125), Lithuania (76) and Taiwan (40) were involved. Antibiotics and PPIs were not allowed 1 month prior to the inclusion. PgII was measured by ELISA technique (Biohit, Plc., Finland). Increased PgII was considered at a level $\geq 10 \mu\text{g/l}$. *H.pylori* was considered positive, if at least two of the following tests results were positive - rapid urease test, histology and serology (IgG/IgA group antibodies to *H.pylori* infection, Biohit, Plc.).

Results

165 patients were *H.pylori* infected, the mean Pg II (95% CI) values ($\mu\text{g/l}$) were 10.30 (7.83; 12.77) for infected, and 7.19 (6.22; 8.16) for non-infected individuals. In the group with positive serology, PgII was $\geq 10 \mu\text{g/l}$ in 135 pts, but $< 10 \mu\text{g/l}$ in 43 pts. In this group increased PgII was correlating to *H.pylori* infection ($p < 0.05$); the sensitivity being 82.1%; specificity 38.9%; PPV 85.8%; NPV 32.6%, overall accuracy - 74.2%.

Conclusions

Increased Pg II is sensitive, but not-specific test for *H.pylori* infection. The current data do not support the value of PgII for detection of *H.pylori* infection. However a larger group and adjustment of cut-off value might be helpful to improve the test performance.