

P0763 THE HISTOLOGICAL DYNAMICS AND SERUM LEVELS OF PEPSINOGEN I, II AND GASTRIN 17 IN ATROPHIC GASTRITIS AFTER HELICOBACTER PYLORI'S ERADICATION

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INTRODUCTION: Whether gastric atrophy regresses after successful treatment of *Helicobacter pylori* infection is still a matter of controversy.

AIMS & METHODS: To study the functional indicators of gastric atrophy – pepsinogen I (PG I), pepsinogen II (PG II), pepsinogen I/pepsinogen II (PG I/II ratio), gastrin 17 and gastric histology after *Helicobacter pylori* eradication.

34 *H. pylori*-positive patients (1st group) received eradication therapy, 22 patients (2nd control group) did not receive eradication therapy. Antral and corpus biopsy was taken before and after 18 months after *H. pylori* eradication to confirm the *H. pylori* status and grade of inflammation, atrophy and intestinal metaplasia according to the updated Sydney system classification. Effectiveness of eradication therapy was evaluated by histological method (Giemsa stain), fast urease test. Serum levels of PG I and PG II, PG I/II ratios, and gastrin 17 were measured before and after 18 months after eradication therapy (GastroPanel, Biohit).

RESULTS: The grade of gastritis activity and chronic inflammation reduced in antrum and gastric corpus after 18 months in patients with successful eradication of *H. pylori* infection. The grade of atrophy and intestinal metaplasia remained the same. Control group did not have any morphologic changes. PG I level (1st group): before vs. after eradication diminished from 85 to 70 µg/mL; $P < 0.05$ (Wilcoxon rank test). PG II level (1st group): before vs. 18 months after eradication diminished from 14.5 to 10.5 µg/mL; $P < 0.05$ (Wilcoxon rank test). PG I/II ratio (1st group): before vs. after eradication increased from 3.6 to 5.9; $P < 0.05$ (Wilcoxon rank test) as well as gastrin 17 level (from 0 to 3 pmol/L; $P < 0.05$). There was statistically significant increase only of gastrin 17 in the control group.

CONCLUSION: Analysis of morphologic data did not show any regress of atrophy 1.5 years after eradication. Changes of functional indicators of gastric atrophy – pepsinogen I (PG I), pepsinogen II (PG II), pepsinogen I/pepsinogen II (PG I/II ratio), gastrin 17 are more sensitive for *H. pylori* eradication. Increase of PG I/II ratio can be treated as early serum marker of regress of stomach atrophy.

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