[Suppression of Helicobacter pylori by local secretory immune response?]

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54 patients (22 females, 32 males, age 21-79, mean 45 years) referred for upper gastrointestinal endoscopy were investigated. Helicobacter pylori (HP) infection was determined using histology (H&E and Giemsa stain), rapid urease test (CLO) and serology (Cobas Core Anti-H. pylori EIA). Density of HP colonization was determined in gastric antral (3 biopsy specimens) and body mucosa (2 biopsy specimens) and semiquantitatively graded on a scale of 0 to 3. Gastric colonization was obtained by addition of the two scores. IgA anti-HP concentration was determined by ELISA using the same FPLC purified HP-antigen mixture as for serology. Gastric juice IgA anti-HP concentration in HP-positive patients (n = 40) was significantly higher than in HP-negative (n = 14) patients (38.3 +/- 4.6 vs. 5.4 +/- 1.2 relative units, p < 0.001). Comparison of HP-colonization density of gastric mucosa with gastric juice IgA anti-HP concentration of the 54 patients by binominal regression analysis yielded a correlation coefficient of 0.65 (p < 0.01). The biphasic course of the curve suggests a mutual relationship of HP-colonization density and IgA immune response. Increasing colonization densities seemed to induce increasing secretory immune responses. Half-maximal and higher immune responses, however, seemed to suppress further HP colonization in vivo without eradicating the infection.