
**ΠΡΟΣΚΕΚΛΗΜΕΝΕΣ ΞΕΝΟΓΛΩΣΣΕΣ
ΑΝΑΚΟΙΝΩΣΕΙΣ
ΕΛΛΗΝΩΝ ΕΡΕΥΝΗΤΩΝ**

● **OMEPRAZOLE PLUS AZITHROMYCIN AND EITHER TINIDAZOLE OR AMOXYCILLIN FOR THE ERADICATION OF *HELICOBACTER PYLORI* INFECTION**

G. Anagnostopoulos, P. Kostopoulos, G. Margantinis, S. Tsiakos, D. Arvanitidis
251 Air Force and Veterans Hospital, Athens, Greece

Introduction: Rising antimicrobial resistance is a major determinant of *Helicobacter pylori* eradication regimens' failure in addition to other factors such as poor compliance, *cagA* negativity etc. Thus, shortening of treatment and the use of alternative antimicrobial agents remains the goal of treatment strategies. Azithromycin is an attractive agent for the eradication of *H. pylori* due to its excellent inhibitory activity and long biological half-life.

Materials and Methods: We prospectively investigated 160 out-patients with dyspeptic symptoms who were referred for upper gastrointestinal endoscopy. *Helicobacter pylori* status was determined by rapid urease test histological assessment. The patients were randomized to receive A) Omeprazole 20 mg bid and amoxicillin 1 gr bid for 7 days plus azithromycin 500 mg od for the first 3 days of the therapy (OAZAm group) or B) Omeprazole 20 mg bid for 7 days plus azithromycin 500 mg od and tinidazole 500 mg bid for the first 3 days of the therapy (OAZT group). Five to six weeks after concluding the therapy eradication was assessed by endoscopy and ¹³C-urea breath test and was defined as negative results on both test.

Results: *H. pylori* was eradicated in 50 of 80 patients of OAZT group (ITT 62.5%) and in 57 of 80 patients of OAZAm group (ITT 71.2%). The difference was not statistically significant.

Treatment results

	OAZT group	OAZAm group
No of patients	80	80
No of drop-out	0	0
Cure rates		
PP% (n)	62.5% (50/80)	71.2% (57/80)
95% CI	54-71%	63.2-79.1%
ITT% (n)	62.5% (50/80)	71.2% (57/80)
95% CI	54-71%	63.2-79.1%

Conclusion: The eradication rates achieved with the above regimens were low. Possible reasons for the sub-optimal eradication rates could be connected with antimicrobial resistance. It seems that no ideal therapy exists that leads to a 100% eradication rate. In the future bacterial resistance may increase more and lead to a big problem. Further studies are needed to compare the efficacy of short-term regimens for *Helicobacter pylori* infection and to evaluate the role of different proton pump inhibitors.

Δημοσιεύθηκε στο Gut 2002;51(Suppl II):A102.

● **HELICOBACTER PYLORI INFECTION IN UPPER GASTROINTESTINAL BLEEDING IN PATIENTS WITH HEREDITARY HEMORRHAGIC DISORDERS**

N.P. Eleftheriadis¹, **S. Makri**², **C. Aggouridaki**³, **K. Pistevou-Gompaki**⁴, **P. Makris**²

¹Aristotles University of Thessaloniki, Thessaloniki, Greece, ²Aristotles University of Thessaloniki, Hemostatic Unit of the First Propedeutic Dept, Greece, ³Aristotles University of Thessaloniki, Immunological Laboratory, Greece, ⁴Aristotles University of Thessaloniki, AHEPA Hospital, Greece

Background: In patients with hereditary hemorrhagic disorders (HHD) upper gastrointestinal bleeding (UGB) presents of life-threatening complication, while the role of *Helicobacter pylori* (*HP*) infection in these patients has not been fully clarified in the literature. The **aim** of this study was to evaluate the role of *HP* infection and dental status in UGB in patients with HHD.

Methods: Thirty-seven patients with HHD, mean age 42±16 years, [18 patients (17 males, one female) and 19 patients (12 males, 7 females) with and without history of UGB respectively], and 52 patients without HHD, who came for elective gastroscopy, due to dyspeptic symptoms, mean age 61±16, 32 males, 20 females, induced into the study. Endoscopy was performed to all patients with UGB and to controls. ELISA was used to detect 1) IgG (Pharmacia & Upjohn, normal<10U/ml), 2) anti-CagA (RADIM, normal<10 RU/ml), and 3) IgA (Novum Diagnostica, normal<20 NU/ml) serum and saliva *HP*-antibodies of patients and controls. Moreover, dental status was examined using the decayed/missing/filled teeth index (DMFT) in patients and controls. χ^2 -test was used for statistical analysis.

Results: 24/37 (64,8%) patients and 34/52 (65,4%) controls had *HP*-IgG serum antibodies positive ($p>0,1$, NS), while 20/37 (54,05%) patients and 18/52 (34,6%) controls had serum anti-CagA positive (NS). However, 15/18 (83%) and 5/19 (26,3%) HHD patients' with and without UGB respectively, had serum anti-CagA positive ($p<0,01$), while serum *HP*-IgG was positive in 13/18 (72%) and 11/19 (58%), respectively (NS). Furthermore, saliva *HP* antibodies and the DMFT calculated index did not differ between the two subgroups.

Conclusions: Although there was not found statistically significant difference in *HP* infection between HHD patients' and controls, CagA strain appeared more frequently in those hereditary bleeding patients' with history of HGB. According to our results and in combination with the increased bleeding complications, anti-CagA screening and therapy is recommended to all patients with HHD.

Δημοσιεύθηκε στο *Gut* 2002;51(Suppl II):A94.

● **APOPTOSIS AND CELL PROLIFERATION ARE SIGNIFICANTLY AFFECTED BY ANATOMIC SITE AND *HELICOBACTER PYLORI* INFECTION OF THE GASTRIC MUCOSA**

S.D. Ladas¹, M. Chatziargyriou¹, P. Kitsanta², K. Triantafyllou¹, C. Barbatzas³, S. Raptis¹

¹Gastroenterology Unit, ²nd Department of Internal Medicine, Medical School of Athens, Athens, Greece, ²Pathology Department of the "Evangelismos" Hospital, Athens, Greece,

³Gastroenterology Unit, "Sismanogleion" Hospital, Athens Greece

Introduction: *Helicobacter pylori* is a risk factor for gastric cancer. The association between *H. pylori* and cancer may be attributable to increased epithelial cell turnover. However, the underlying mechanisms and the response of different anatomic sites of the gastric mucosa to *H. pylori* infection remain to be defined.

Aim: To investigate the apoptosis and cell proliferation rate of different anatomic sites of gastric mucosa in *H. pylori* +ve and -ve patients.

Methods: 20 patients (M/F 10/10, age 34, 16-54 years, median, range) were studied. Six biopsies were separately obtained from the greater (GC) and lesser (LC) curvature of the antrum and corpus and the fundus and cardia. *H. pylori* status and cell proliferation were detected immunohistochemically with an anti-*H. pylori* and MIB-1 monoclonal antibodies according to the Avidin-Biotin Method. Apoptosis was measured by TUNEL method. The rate of the positive stained cells was count using image analysis technique (SABA).

Results: 11 patients were *H. pylori* -ve and 9 +ve. Median apoptotic index was significantly different among the GC 25 and LC 20 of antrum, the GC 15 and LC 13 of corpus, the fundus 12 and the cardia 15 ($P<0.001$), being significantly higher at all anatomic sites in *H. pylori* +ve patients ($P<0.001$). Median proliferation index was also significantly different among the GC 2.4 and LC 3.0 of antrum, the GC 4.9 and the LC 9.2 of corpus, the fundus 10.1 and the cardia 12.8 ($P<0.001$). However, *H. pylori* +ve patients had a significantly lower proliferation index only GC ($P=0.025$) and LC ($P=0.03$) at the corpus and the cardia ($P=0.04$).

Conclusions: Gastric cell apoptosis and proliferation are significantly affected by anatomic site and *H. pylori* infection, factors which are known to be related with gastric carcinogenesis.

● **INFLAMMATION AND INTESTINAL METAPLASIA OF CARDIAC MUCOSA IN PATIENTS WITH DUODENAL ULCER DISEASE AND REFLUX ESOPHAGITIS**

S. Michopoulos¹, K. Petraki², M. Sotiropoulou³, A. Natsios¹, N. Katsakos¹, G. Manthos¹, G. Stamatis¹, D. Sgouras⁴, N. Kralios¹, A. Mentis⁴

¹Gastroenterology Unit of "Alexandra" Hospital, Athens, Greece, ²Pathology Unit of "Metropolitan" Hospital, Athens, Greece, ³Pathology Unit of "Alexandra" Hospital, Athens, Greece, ⁴Microbiology Department of Pasteur Institute, Athens, Greece

Aim of the study: To evaluate possible differences in inflammation and intestinal metaplasia in patients with duodenal ulcer (DU) and reflux esophagitis (RE).

Patients and Methods: 90 patients with DU, all *Hp*(+) and 98 patients with RE, 54 *Hp*(+) and 44 *Hp*(-) were enrolled in the study. Biopsy specimens obtained from gastric antrum (A), fundus (F) and cardia (C) were examined with Hematoxylin-Eosin, modified Giemsa, PAS-Alcian Blue and HID-Alcian Blue stains. The grade and activity of inflammation were evaluated according to updated Sydney System. Serology for CagA characterization was performed in all *Hp*(+) patients. Stat: chi-square.

Results: The number of patients with the different degrees (0/1/2/3) of the grade and the activity of inflammation as well as the presence and the extent of intestinal metaplasia (IM) are shown in the table. CagA seropositivity was 90% for DU patients but only 40% for RE*Hp*(+).

	Grade	Activity	IM
DU	0/16/40/34	4/14/32/40	64/16/10/0
p	*	**	NS
RE <i>Hp</i> (+)	2/12/34/6	7/17/24/6	38/6/8/2
p	**	**	NS
RE <i>Hp</i> (-)	2/28/14/0	34/8/2/0	32/10/2/0

* $p < 0.01$, ** $p < 0.001$

Conclusions: 1) The grade and activity of the inflammation of the cardia are more severe in DU than in RE*Hp*(+) patients. 2) The grade and activity of the cardia inflammation are more severe in RE*Hp*(+) than in RE*Hp*(-) patients. 3) There is no deference in the presence of IM neither between DU and RE*Hp*(+) nor between RE*Hp*(+) and RE*Hp*(-) patients. 4) The prevalence of CagA seropositivity is higher in DU than in RE*Hp*(+) patients.

Δημοσιεύθηκε στο *Gut* 2002;51(Suppl II):A60.

● **EVOLUTION OF ENDOSCOPIC INCIDENCE OF GASTRODUODENAL ULCER (GDU) AND ESOPHAGITIS (E) AFTER THE WIDE APPLICATION OF *HELICOBACTER PYLORI* (HP) ERADICATION REGIMENS**

S. Michopoulos¹, M. Sotiropoulou², K. Petraki³, A. Natsios¹, N. Katsakos¹, G. Manthos¹, G. Stamatis¹, M. Zisis¹, N. Kralios¹

¹Gastroenterology Unit of "Alexandra" Hospital, Athens, Greece, ²Pathology Unit of "Alexandra" Hospital, Athens, Greece, ³Pathology Unit of "Metropolitan" Hospital, Athens, Greece

There are several recent reports suggesting a decrease in the incidence of GDU. The **aim** of our study was to evaluate if there are changes in the prevalence of endoscopic diagnosis if GDU or E after the wide application of *Hp* eradication regimens.

Patients & Methods: We analyzed all the endoscopic reports and related files of all the patients who had an UGI endoscopy during the years 1993, 1997 and 2001. Our department is situated in a central hospital of Athens, it belongs to the National Health System (NHS) and it has an open access for all beneficiaries of NHS.

Results: Total number of fiberoscopies (UGI), gastric/duodenal ulcers (GDU) and E with corresponding LA classification (A/B/C/D) are shown on the table. The groups were comparable for age, tobacco and alcohol consumption. Valuable information on *Hp* status in patients with endoscopic lesions were available in only 58% during 1993, while this increased dramatically during 1997 (96%) and 2001 (97%). Among them the % of *Hp*(+) patients was 50%, 42% and 51% for E, 77%, 65% and 73% for GU and 90%, 89% and 85% for DU for the 3 periods respectively. NSAID's consumption was not modified according to the files' data. Complications decreased only in 2001 (205, 196, 68).

	UGI	GDU	E
1993	2170	148/243	75/38/10/3
1997	2576	98/293	86/43/7/2
2001	2407	90/322	98/70/11/2

Conclusions: Since 1993, 1) The total number of UGI procedures has not changed, 2) The accurate control on *Hp* status has dramatically increased, 3) Neither the prevalence of GDU and E at endoscopy nor their *Hp* status were modified, 4) Non variceal hemorrhage decreased during 2001, regardless of the same NSAID's consumption.

Δημοσιεύθηκε στο *Gut* 2002;51(Suppl II):A62.

● **THE INTRAFAMILIAL STATUS OF *H. PYLORI* INFECTION IN CHILDREN WITH UPPER GI SYMPTOMS**

E. Roma¹, Y. Kafritsa¹, J. Panagiotou¹, A. Mentis², C. Van-Vliet³, V. Syriopoulou¹

¹Gastroenterology Unit, 1st Dept. of Paediatrics, Athens University, Athens, Greece, ²Hellenic Institute Pasteur, Athens, Greece, ³Histopathology Dept., «Aghia Sophia» Hospital, Athens, Greece

Background: *H. pylori* infection is common and its acquisition is mainly in young ages. It has been claimed that during early childhood intrafamilial contransmission is more possible than from other sources outside home.

Aim: The aim of the study was to investigate the *H. pylori* status within families of children with upper GI symptoms.

Methods: 45 symptomatic children without previous eradication therapy aged 4-16 years (median 11 yrs) were investigated by ¹³C-UBT as well as all their 125 family members (parents and siblings) living in the same house. Socioeconomic status and conditions of living were also investigated.

Results: According to *H. pylori* status the index children were divided into group A: 20 (44%) who were *H. pylori* infected and group B: 25 (56%) who were negative for *H. pylori* infection. Forty four out of 57 (77%) relatives of group A were also infected, while *H. pylori* was found only in 19 out of 68 (28%) relatives of group B, (p=0.000). In group A 79% of fathers, 90% of mothers and 65% of siblings were found *H. pylori* positive, while in group B 29%, 44% and 5.2% respectively (p=0.001, p=0.01, p=0.001). There was not found any difference concerning living conditions between *H. pylori* positive and negative children.

Conclusions: The significantly higher prevalence *H. pylori* infection within families of *H. pylori* positive symptomatic children, compared to the negative ones, supports the hypothesis that transmission of *H. pylori* in children could be from the infected members of the family or the same source within house.

● **GASTRIC CARDIA INFLAMMATION AND INTESTINAL METAPLASIA (IM): ROLE OF *H. PYLORI* AND GASTROESOPHAGEAL REFLUX DISEASE (GERD)**

N. Rosolimos¹, P. Aggeli¹, N. Sfougkatakis¹, P. Koulouris¹, K. Petraki², A. Nakos¹

¹Gastroenterology Department, ²Histopathology Department, "Hippokration" General Hospital of Athens, Athens, Greece

Objective: Pathogenesis of chronic inflammation and intestinal metaplasia at the gastric cardia is still unclear. We evaluated the factors involved in the pathogenesis of these histological alterations.

Methods: Totally 52 consecutive patients who underwent upper endoscopy were enrolled in the study. In each patient 2 biopsies were performed in the antrum, 2 in the gastric body and 2 at the gastric cardia in order to determine *H. pylori* infection and histological status.

Results: Overall inflammation of the gastric cardia was detected in 40 (78,4%) patients, *H. pylori* infection in 35 (68,6%), intestinal metaplasia of the gastric cardia in 9 (17,6%) and GERD in 18 (35,2%). The rate of *H. pylori* infection was not found higher in patients who had inflammation of the gastric cardia compared to those who had not [28/40 (70%) vs 5/9 (55,6%); $p>0,1$], while the prevalence of GERD symptoms was also not different between the two groups [15/40 (37,5%) vs 2/9 (22,2%); $p>0,1$]. Regarding the intestinal metaplasia, *H. pylori* infection rate was also no higher in patients with IM compared to those without [5/8 (62,5%) vs 30/43 (69,8%); $p>0,1$], while no difference concerning the prevalence of GERD symptoms was found between the two groups [2/9 (27,2%) vs 16/42 (38,1%); $p>0,1$]. No difference in age and sex emerged between patients with or without histological alterations of the gastric cardia.

Conclusions: No relation was found between both inflammation and intestinal metaplasia at the gastric cardia and *H. pylori* infection and GERD.