

20 mg bid, amoxicillin 1000 mg bid, clarithromycin 500 mg bid (OAC) for 7 days, or omeprazole 20 mg bid and respective placebos (OP) for 7 days. Endoscopic biopsies from antrum, corpus and fundic mucosa were obtained at baseline and in 3-month intervals up to 12 months after therapy. On histology, grade and activity of gastritis, *H. pylori*-colonisation, atrophy, parietal cell hypertrophy, intestinal metaplasia, lymphocytic infiltration of the glands, and grade of glandular destruction were assessed. Crossover of patients of the placebo group was performed after 12 months of follow up.

Results: So far, 16 of 20 patients (80%) showed healing of active autoimmune gastritis following OAC therapy, that is, the activity of the gastritis disappeared and lymphocytic infiltration of the glands and glandular destruction improved significantly. In comparison, only 3 of 21 patients (14%) in OP group showed improvement of their active autoimmune gastritis ($p < 0.0001$). At present, 5 of 7 and 3 of 9 patients showed stable healing or improvement of active autoimmune gastritis 12 months after treatment with OAC and OP, respectively. In 4 patients, who received cross-over eradication therapy after 12 months, healing of active autoimmune gastritis occurred 3 months later.

Conclusions: Development of active, not-yet atrophic autoimmune gastritis seems to be a sequela of *H. pylori* infection. Anti-*H. pylori* therapy may result in healing of active autoimmune gastritis in the majority of cases.

15/32 *Helicobacter pylori* Resistance and Use of Antibiotics in Portugal.

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Objectives: The aim of this study was to evaluate the prevalence of resistance to antibiotics used for *H. pylori* (Hp) eradication in different regions of Portugal and to correlate them with the consumption of those antibiotics.

Methods: From 1998 to 1999, a total of 635 Hp clinical isolates were collected from adult dyspeptic patients and tested to assess the susceptibility to amoxicillin, metronidazole, clarithromycin and tetracycline by determination of MICs using the E-Test. Data on the consumption of those antibiotics were obtained from official prescriptions through National Health Service and presented in DDDs / 1000 inhabitants / Day (Defined Daily Dose). Four regions were considered (North, Center, Lisbon and South) and patients were classified according to the place of residence.

Results: All the isolates were sensitive to amoxicillin and to tetracycline. An overall resistance rate of 12.8% to clarithromycin and of 18.5% to metronidazole was observed. Prevalence of resistance to clarithromycin was higher in Lisbon and North region (22.0% and 15%, respectively), where the consumption of this antibiotic was above national average. The rate of resistance to metronidazole was significantly higher in Lisbon (34.1%), being also related with a higher consumption of this antibiotic (131.6% of the national average).

Discussion: In Portugal, the resistance of Hp strains to clarithromycin and metronidazole presents a considerable interregional difference, which can be correlated with the consumption of these antibiotics.

15/33 Photodynamic Therapy for Eradication of *Helicobacter pylori* in Patients after Failure of Standard Drug Therapies.

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Objective: Antibiotic resistance has begun to impair the ability to cure *H. pylori* infections. Meanwhile there are some evidence for efficacy of He-Ne laser irradiation with/without photosensitizers against resistant *H. pylori* strains in vitro and in vivo. Attempt to eradicate *H. pylori* in patients after failure of standard drug therapies.

Methods: Six patients with proven *H. pylori* infection were selected for photodynamic therapy (PDT) after unsuccessful courses of triple and/or quadruple therapies. Four of them had positive dynamic of clinical symptoms after drug therapy, but had not eradication of *H. pylori*. Two patients had not completed triple therapy because of allergy reactions to antibiotics. No active peptic ulcers have been seen. The methylene blue (50.0 ml 0.5%) was given to patients an hour before endoscopy. The quartz light conductor was put through biopsy channel of endoscope. Ten areas of stomach in antrum, corpus and fundus were irradiated by He-Ne laser

(wave length – 633 nm) with 25 mW output power during 10–15 min. The course consisted of three procedures every other day.

Results. All patients completed PDT and underwent control endoscopy after 4 weeks. The therapy success was confirmed in five patients by histology, the rapid urease test and the ¹³C urea breath test.

Conclusion. The PDT seems to work as alternative therapy for *H. pylori* eradication after drug treatment failures and in patients with allergy to antibiotics.

15/34 A High Level of Primary Resistance to Metronidazole and Clarithromycin in previously Untreated Symptomatic Patients Presenting for endoscopy in Australia.

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Objective: Previous studies in Australia have reported high levels of resistance of *H. pylori* to metronidazole (MET), but low levels to clarithromycin (CLA). To monitor the primary antibiotic resistance pattern of *H. pylori* we have established The Australian National Helicobacter Reference Laboratory.

Materials and Methods: To date, we have examined the antibiotic sensitivity pattern of *H. pylori* isolates obtained from 111 symptomatic patients (age range 17–84) with no prior history of treatment for *H. pylori*. Biopsies were first cultured on Campylobacter selective agar. Minimal inhibitory concentrations (MIC) were determined using E-test strips. Resistance breakpoints were > 8mg/L for MET, > 2mg/L for CLA, > 4mg/L for TET and >0.5mg/L for AMOX.

Results: *H. pylori* isolates from 69 patients (62%) were sensitive to MET, CLA, TET and AMOX. No isolate was resistant to AMOX or TET. In 36 patients (32.4%) *H. pylori* isolates were shown to be resistant to MET, with isolates from 11 of these patients also showing resistance to CLA. Of those patients harbouring isolates resistant to MET, 81% of patients had at least 1 isolate with a MIC level to MET >256mg/L. In 16 patients (14%) *H. pylori* isolates were resistant to CLA with isolates from 11 of these patients also showing resistance to MET.

Discussion: Given the high level of primary resistance to metronidazole and clarithromycin in this symptomatic Australian population it may be timely to consider a more informed approach for the treatment of *H. pylori* infection.

15/35 Rabeprazole 7-days Vs Rabeprazole 10-days Triple Therapy in the Eradication of *H. Pylori* Infection – A Randomized Study.

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Objective: To evaluate the efficacy and safety of two triple therapies based on rabeprazole (RAB).

Methods: Ninety-seven *H. pylori* positive patients (CLO-test/histology) (median age 48, range 18–79) with peptic ulcer (n=59) or non-ulcer dyspepsia (n=38) were randomized to receive RAB 400mg bid, Clarithromycin (CL)500mg bid, and Amoxicillin (AMO) 1gr bid for 1 week (Group A, n=49), or RAB 400 mg bid, CL 500mg bid and AMO 1gr bid for 10 days (Group B, n=48). *H. pylori* eradication was assessed 4 weeks after completion of treatment (by CLO-test and histology). Clarithromycin sensitivity tests were carried out in the cultured pre-treatment (66/97, 68%) *H. pylori* strains.

Results: The regimen failed to eradicate three (4.5%) *H. pylori* strains (one in Group A and two in Group B) which exhibited primary CL resistance. The eradication rates according to intention to treat analysis (ITT) were: 40/49(81.6%) in Group A and 40/48 (83.3%) in Group B, and according to per-protocol (PP)analysis: 44/49 (89.8%) in Group A and 43/48(89.6%) in Group B. Side effects in both groups were mild and no patient discontinued treatment due to adverse effects.

Discussion: We conclude that both (1-week vs 10-days) triple therapies based in rabeprazole proved equally effective and safe to eradicate *Helicobacter pylori* infection.