

HELICOBACTER PYLORI INFECTION IN A HISPANIC POPULATION: RELATION TO AGE AND EDUCATIONAL LEVEL. Hoda M. Malaty, M.D., Doyle J. Evans Jr, Ph.D., and David Y. Graham, M.D., FAGG. VAMC and Baylor College of Medicine, Houston, TX.

*H. pylori* infection is more common in blacks than in whites and it has been suggested that this may have a genetic basis. Previous studies of *H. pylori* in Hispanics have not taken place of birth or socioeconomic status into account. We performed a seroepidemiologic study of *H. pylori* infection using an ELISA for anti-*H. pylori* IgG in 108 healthy Hispanic volunteers aged 19 to 75 years residing in the Houston Metropolitan area. The mean age was  $36 \pm 14$  years, 68.5% were women and 67.6% were born in the U.S. The overall prevalence of *H. pylori* was 55.6%, increasing from 38% in those aged 19 to 29 years to 91% to those aged 59 or older ( $p < 0.001$ ). There was a significant inverse correlation between the age adjusted rate of *H. pylori* infection and educational level; highest in those who did not complete high school (72%) and lowest in those who completed college (38%) ( $p < 0.05$ ). This difference remained significant after logistic regression analysis adjusting for age and gender. A higher prevalence was observed in those not born in the United States (65.7%) vs (50.6%) but that difference was not statistically significant ( $p = 0.14$ ). Comparisons with previous data showed that *H. pylori* infection is more prevalent in Hispanics than whites and similar to that seen in blacks. Because Hispanics do not constitute a race, the increased prevalence of *H. pylori* in Hispanics and blacks seems unlikely to be genetic; it may represent an as yet unidentified bias.

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ERADICATION OF METRONIDAZOLE RESISTANT *H. PYLORI*. B.J. Marshall, MD, FAGG, R.L. Guerrant, MD, S.R. Hoffman, RN, L. Barrett, R.W. McCallum, MD, FAGG, University of Virginia, Charlottesville, VA 22908.

Effective antimicrobial therapy for *H. pylori* usually involves bismuth-antibiotic combination therapy (BACT) with bismuth subsalicylate (BSS), tetracycline, and metronidazole (MTZ). BACT is less effective for MTZ-resistant *H. pylori* isolates, the proportion of which varies from 25% in the U.S. to 85% in parts of Africa. The AIM of this study was to evaluate erythromycin-BACT for MTZ-resistant isolates detected at primary isolation or after failed BACT. **METHODS:** *H. pylori* was diagnosed either by biopsy and culture or by  $^{14}\text{C}$ -urea breath test. Isolates were tested for MTZ sensitivity with a  $5 \mu\text{g}$  disc,  $< 15$  mm diameter zone size being considered resistant. Patients with MTZ-resistant organisms or who had failed prior therapy with MTZ-BACT were treated with the following regimen: Concurrent therapy for 14 days with bismuth subsalicylate 250 mg 8 tabs daily, tetracycline 250 mg 8 tabs daily, erythromycin base (ERYC) 250 mg 8 tabs daily, ranitidine 300 mg b.i.d. or famotidine 40 mg b.i.d. or omeprazole 20 mg b.i.d. Patients were breath tested 1 mo. after therapy to confirm eradication of the organism. **RESULTS:** 39 patients completed the study and follow-up was obtained in 38. *H. pylori* was eradicated in 27 patients (71%). There was no statistical difference between the cure rates of the therapies but the combination of erythromycin, tetracycline, BSS, and omeprazole gave the highest cure rate of 81% (see table).

Therapy	N	Follow-up	Cure	%
Eryth/BSS/Tetra/Omep.	12	11	9	81%
Eryth/BSS/Tetra/Famot.	10	10	7	70%
Eryth/BSS/Tetra/Ranit.	8	8	6	75%
Eryth/BSS/Tetra/only	9	9	5	55%

Of 16 patients with MTZ-resistant organisms *in vitro*, 11 were cured (69%). Self limiting side effects were seen in 30% of all patients. **CONCLUSIONS:** 1) Metronidazole-resistant *H. pylori* can usually be eradicated with erythromycin-BACT. 2) Failed therapy is related to poor compliance and/or side effects.

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A MULTICENTER DOUBLE-BLIND, PARALLEL GROUP STUDY OF OMEPRAZOLE (20mg Om) AND RANITIDINE (300mg nocte) IN THE TREATMENT OF DUODENAL ULCER.

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The primary aims of this Brazilian multicenter study were to compare the efficacy and safety of omeprazole (Om) 20mg with ranitidine (Ran) 300mg nocte in patients with endoscopically proven duodenal ulcer (diagnosed at most 4 days prior of starting medication). Secondary aims were to assess the effect of prognostic factors (ulcer size, smoking, duration of ulcer disease) on the healing rate. Controls (clinical and endoscopic) were performed at day 15 and if ulcer was still active at day 29. Two hundred and forty one patients with ulcer (stage A1 or A2 of Sakitas' Classification) entered the study (Om=120, Ran=121); 236 patients completed the trial. Including the patients with healing status "unknown" as not healed the healing rates were at day 15, 68% for Om and 40% for Ran group and at day 29, 89% for Om and 80% for Ran group ( $p = 0.05$ ). At day 15, patients in Om group had significantly less heartburn ( $p = 0.001$ ) than patients in the Ran group. In general, the Om group had shorter durations of pain than the Ran group (difference between the groups was not significant:  $p = 0.07$ ). The multivariate analysis showed at day 15: significant effects of treatment ( $p < 0.001$ ), ulcer size ( $p = 0.021$ ) and smoking ( $p = 0.026$ ); at day 29: significant effects of ulcer size ( $p = 0.007$ ) and smoking ( $p = 0.03$ ), but no significant effect of treatment ( $p = 0.054$ ). The odds in favour of healing were greater in the Om group than in the Ran group, greater for small ulcers than large ulcers and greater for non-smokers than smokers.

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THE EFFECT OF ORAL DOMPERIDONE THERAPY ON GASTROINTESTINAL SYMPTOMS IN PATIENTS WITH PARKINSON'S DISEASE. RW McCallum\*, KG Davenport, B Sivri. Department of Internal Medicine, University of Virginia, Charlottesville VA.

Parkinson's Disease (PD) patients who are receiving dopamine agonists often have gastrointestinal (GI) symptoms. Domperidone still experimental in the USA is a peripheral dopamine antagonist with minimal, if any, penetration of the blood brain barrier and has been useful for the symptomatic management of upper GI tract motility disorders. The goal of our study was to investigate if domperidone could improve GI symptoms in PD patients. **Methods:** 4 patients (3 female) who had PD (4 to 16 years) were studied. Mean age was 70.5 years (range 64 to 76). Following a baseline gastric emptying (GE) study, patients were treated with domperidone 20 mg p.o. qid 15-30 min before each meal and bedtime. Patients remained on the same dosage schedule of antiparkinsonism drug throughout the study. At the beginning and at each followup visit, symptoms of nausea, bloating, pain, anorexia, early satiety, heartburn, vomiting and a global assessment of PD were assessed and scored on a 0 to 4 scale. **Results:** Patients experienced a significant improvement in symptoms compared to their baseline evaluation ( $p < 0.05$ ). Patients' global assessment of PD remained stable or improved (in two). The  $T_{1/2}$  for Serum prolactin levels in all GE significantly improved from  $743 \pm 32.4$  to  $87.7 \pm 10.0$  mins ( $\alpha < 0.05$ ) patients were elevated after domperidone therapy ( $p < 0.01$ ). No adverse effect was reported. **Conclusion:** In PD patients chronic oral domperidone therapy will significantly reduce GI symptoms and GE while not interfering with their response to PD therapy. Serum prolactin elevations can reflect compliance and absorption.

