	UC	CD	All IBD	Control	p-value
Patients	16	17	33	32	
Mean Age (SD)	15.9	16.7	16.3 (1.7)	17.1 (2.5)	ns
Age of menarche in years	12.5	12.8	12.7	12.1	ns
Monthly menses (%)	12 (75)	14 (82)	26 (80)	28 (88)	ns
Premenstrual symptoms (≥1 sx)(%)			33 (100)	25 (78)	<0.01
Menstrual symptoms (≥1 sx)(%)			33 (100)	24 (75)	<0.01
Premenstrual depressive mood (%)				2 (6)	<0.01
Increased premenstrual diarrhea (%)				3 (9)	0.02
Premenstrual headache (%)			9 (27)	17 (53)	0.04

1152

Distinguishing the Impact of Dexlansoprazole on Heartburn Versus Regurgitation in Patients With NERD or EE

David A. Peura, Betsy Pilmer, Barbara Hunt, Reema Mody, Maria Claudia Perez

Purpose: To determine the impact of dexlansoprazole MR (DEX) on heartburn (HB) and regurgitation severity in nonerosive gastroesphophageal reflux disease (NERD) and erosive esophagitis (EE) patients. **Methods:** This was a post hoc analysis of patients enrolled in phase 3 studies either assessing the efficacy and safety of DEX vs placebo (PLB) for 24-hour HB relief in NERD or DEX vs lansoprazole (LAN) in EE healing. DEX 30 mg, DEX 60 mg, and PLB were administered to 315, 315, and 317 endoscopically confirmed NERD patients, respectively, in a randomized, double-blind, 4-week study. NERD patients were to have a ≥6 month history of HB. In two 8-week, double-blind, randomized healing studies, 2737 endoscopically confirmed EE patients received DEX 60 mg or LAN 30 mg. In all studies, the Patient Assessment of Upper Gastrointestinal-Symptom Severity questionnaire (PAGI-SYM) was administered at baseline to assess symptom severity. The PAGI-SYM was also completed at Weeks 2 and 4 of the NERD study, and at Weeks 4 and 8 during the EE healing trials. The PAGI-SYM, a validated questionnaire, includes items assessing severity of HB and regurgitation on a scale of 0 to 5 (no symptoms, mild, moderate, severe and very severe symptoms) yielding a HB/regurgitation subscale. Using the PAGI-SYM questions included in this subscale, we defined separate subscales for HB and regurgitation. Among patients who had both symptoms at baseline (defined as at least mild HB and at least mild regurgitation in the individual subscales), we looked at the change from baseline (CFB) in individual HB and regurgitation subscales along with the original combined HB/regurgitation subscale. Negative CFBs indicate symptom improvement. A CFB of ≥0.55 was considered the minimally important difference for the HB/regurgitation subscale score. **Results:** In the NERD study, 661 patients had both HB and regurgitation at baseline, as did 1909 patients in the EE study. **Table 1** and **Table 2** provide the mean CFB in the subscale scores for the NERD and EE patients, respectively. NERD patients receiving DEX 30 and 60 mg experienced significantly greater improvements in symptom severity for both HB and regurgitation compared to PLB. EE patients receiving DEX 60 mg had significantly greater improvements in HB/regurgitation and HB-only subscales at Week 4 compared to those receiving LAN. **Conclusions:** DEX appears to be effective in improving both the mechanical (regurgitation) and chemical (HB) aspects of GERD symptoms and this improvement is maintained for the duration of treatment.

Table 1. NERD

	DEX 30 mg	DEX 60 mg	PLB
Baseline n	217	225	219
Week 2 n	213	220	216
Week 4 n	196	205	205
Mean CFB			
HB/regurgitation subscale Week 2 Week 4	-1.47[a] -1.72[a]	-1.59[a] -1.77[a]	-0.95 -1.20
Regurgitation only Week 2 Week 4	-1.44[a] -1.66[a]	-1.62[a] -1.75[a]	-0.98 -1.18
HB only Week 2 Week 4	-1.72[a] -2.08[a]	-1.87[a] -2.14[a]	-0.96 -1.31

[a]$p \leq 0.00001$ vs PLB

Table 2. EE

	DEX 60 mg	LAN 30 mg
Baseline n	925	984
Week 4 n	913	971
Week 8[a] n	274	318
Mean CFB		
HB/regurgitation subscale Week 4 Week 8	-2.03[b] -2.11	-1.87 -1.97
Regurgitation only Week 4 Week 8	-1.95 -2.00	-1.83 -1.95
HB only Week 4 Week 8	-2.52[b] -2.64	-2.31 -2.47

[a]Only patients unhealed at Week 4 continued treatment for an additional 4 weeks. [b]$p < 0.05$ vs LAN

1153

A Dose-Response Efficacy and Safety Study of Arbaclofen Placarbil as Adjunctive Therapy in GERD Patients Who Incompletely Responded to PPI Therapy

Nimish B. Vakil, F. Jacob Huff, Daniel Bonzo, Kenneth C. Cundy

Background: Arbaclofen placarbil (AP, XP19986) is a prodrug of the GABA-B agonist R-baclofen that has been shown to reduce reflux episodes in patients with gastroesophageal reflux disease (GERD). Aim: To evaluate efficacy and safety of AP versus placebo as adjunctive therapy in subjects with troublesome GERD symptoms despite therapy with once-daily doses of a proton pump inhibitor (PPI). Methods: Patients (N = 460) with symptomatic GERD experiencing troublesome symptoms on once-daily PPI therapy were enrolled in this phase 2b, randomized, multicenter, double-blind, placebo-controlled, dose-ranging study. Patients with ≥4 episodes of heartburn on ≥3 days during the baseline week, documented PPI compliance, and no confounding illness or structural abnormalities of the GI tract, were randomized to receive placebo or AP (20 mg QD, 40 mg QD, 20 mg BID, or 30 mg BID titrated over 4 days) with PPI for 6 weeks. Patients recorded GERD events (heartburn, regurgitation and other symptoms) in a daily diary and rated severity of each event (very mild, mild, moderate, severe or very severe). The primary endpoint was percent change from baseline in heartburn events per week. Results: In the primary analysis, comparisons between AP treatment and placebo based on a closed testing procedure did not reach statistical significance for percent change from baseline to week 6 in heartburn events per week using a repeated measures ANCOVA model. The reduction in the AP 30 mg BID group was 77.7% compared to 68.0% in the placebo group (p = 0.077). Post-hoc analyses removing mild & very mild heartburn events, resulted in greater percent reductions for all AP doses (20 mg QD 78.7%; 40 mg QD 77.3%; 20 mg BID 81.2%; 30 mg BID 84.2%), with nominal p-values <0.05 for each dose compared to placebo (64.6%). AP was generally well-tolerated at all dose levels. Most reported adverse events were mild or moderate in severity. Withdrawals due to adverse events were 5.6% in subjects receiving placebo and ranged from 6.4% for AP 20 mg QD to 21.3% for AP 30 mg BID. Conclusions: Although the primary analysis only showed a trend toward significance, further analysis suggested that AP may reduce heartburn episodes of at least moderate severity when given as adjunctive therapy in patients with GERD who experienced symptoms while taking a PPI. AP was well-tolerated. Patients with very mild or mild symptoms may confound trials for add-on therapies for patients with a partial response to PPIs.

1154

Effectiveness of Proton Pump Inhibitors (PPIs) for Gastroesophageal Reflux Disease (GERD) in the General Population: Results From a Large Population Based AGA Survey

Neil Gupta, John M. Inadomi, Prateek Sharma

Background: Prior studies have documented the efficacy of PPI therapy for the treatment of GERD symptoms. However, there are limited data on the effectiveness of PPI therapy for GERD symptoms in the general population. Aim: To investigate patient perception of GERD symptom control and healthcare seeking behavior among GERD subjects being treated with PPI. Methods: Between October 2010 and November 2010, individuals from the U.S. general population were contacted by phone using random digit dialing (including both listed and unlisted phone numbers) and those over the age of 18 who self-identified themselves as suffering from GERD or persistent heartburn (defined as symptoms two or more times per week when not using medications) were included in the study. Subjects underwent a phone based interview (approx 12 min) to understand perceptions of living with and managing GERD. Survey items included demographics, characteristics of GERD symptoms, co-morbid conditions, medication use, communication with healthcare providers about symptoms, attitude towards symptoms, and symptom impact on daily living. Subjects who answered yes to "heartburn/GERD/acid reflux symptoms significantly disrupt my life" were considered to have uncontrolled GERD symptoms (incomplete PPI responders). Stepwise, multivariable logistic regression analyses were conducted to identify independent predictors of uncontrolled GERD symptoms. Results: 1004 subjects participated in the study of which 687 (68.4%) were taking a PPI. Of those on PPI therapy, the majority (55.3%) reported that heartburn/GERD/acid reflux symptoms significantly disrupted their life. Subjects with incomplete PPI response were more likely to feel that that there was nothing more important to discuss with their healthcare providers other than GERD symptoms (OR 1.84, 95%CI 1.26 - 2.70), but were less likely to feel that something could be done to completely eliminate their GERD symptoms (OR 0.54, 95%CI 0.36 - 0.81). They were more likely to discuss how symptoms disrupt their life (OR 2.67, 95%CI 1.76 - 4.03) and more likely to discuss symptoms during every appointment (OR 1.30, 95%CI 1.05 - 1.60), but felt more difficulty getting their healthcare provider to understand symptom severity (OR 1.95, 95%CI 1.22 - 3.13). They were more likely to limit physical activity (OR 1.98, 95%CI 1.19 - 3.31), leave a social event early (OR 2.14, 95%CI 1.27 - 3.62), and have difficulty performing work or other activities (OR 1.80, 95%CI 1.08 - 3.03). Conclusions: Despite use of PPIs, over 55% of subjects with GERD symptoms in the general population note continued disruption of daily life due to GERD symptoms. There is a significant impact on physical activity, social life and work performance among patients with incomplete PPI response. Therefore, current management strategies for GERD may be suboptimal.

1155

Fracture Risk in Children and Adolescents With or Without Gastroesophageal Reflux Disease in UK Primary Care: No Association With use of Proton Pump Inhibitors

Ana Ruigomez, Luis A. Garcia Rodriguez, Per Lundborg, Saga Johansson

Introduction. Observational studies have reported conflicting results regarding a possible association between use of proton pump inhibitors (PPIs) and an increased risk of bone fractures in adults. Little is known about whether there is an association in children and adolescents. We therefore conducted a study in a UK paediatric population. Methods. The