

- **IBS PATIENTS WITH LOW RECTAL DISCOMFORT THRESHOLDS SHOW NORMAL STIMULUS-RESPONSE FUNCTIONS FOR RECTAL SENSATIONS.** B. Naliboff, J. Munakata, R. Gracely, S. Fullerton, A. Kodner, E.A. Mayer. CURE: VA/UCLA Gastroenteric Biology Center/Neuroenteric Biology Group; Depts. of Medicine and Psychiatry, UCLA and WLA VA Medical Center and NIDR/NIH.

Hypersensitivity of splanchnic but not sacral afferent pathways has recently been suggested as an etiological factor in IBS (Gastroenterology 107:1686, 1994). In the current study, we examined the following hypotheses in IBS patients: 1) Normal sacral afferent activity in IBS is reflected in normal stimulus-response (SR) functions for non-noxious visceral sensations. 2) Lowered discomfort thresholds reported in IBS are associated with a normal sensory but abnormal affective SR function. 3) **Methods:** 3 psychophysical scaling tasks were examined in 48 IBS patients (ROME criteria +) and 12 age and sex-matched controls (C) using rectal balloon distension with a computerized distension device (SVS, Synectics). Discomfort thresholds were determined with an interactive tracking paradigm (15, 30 s trials at one min. intervals) and by a modified (10 mm up, 5 down, 10 up...) ascending series of phasic (30 s) pressure stimuli ranging from 10-60 mmHg at 60 s intervals. During the ascending series, each stimulus was rated individually on verbal descriptor graphic rating scales of sensory and affective intensity. **Results:** Intensity ratings yielded reliable SR functions for both the sensory and affective ratings for pressures up to 60 mmHg. There were no differences between the IBS and C groups for either function. In contrast, the discomfort thresholds were significantly lower for the IBS group (25+13 mmHg for IBS and 38+13 for C (p<0.01)). **Summary and Conclusions:** IBS patients used the aversive label DISCOMFORT for lower distension pressures than C. This lower threshold was not accompanied by a difference in either the slope or intercept of the affective or sensory SR functions for pressure stimuli up to twice as high as the discomfort threshold. These findings indicate that the lower threshold for the sensation of discomfort in IBS patients is associated with a) normal rectal afferent pathways (presumably pelvic nerve afferents) encoding non-painful sensations; and b) normal affective as well as sensory ratings for a wide range of visceral stimuli. The results indicate IBS is not associated with hypersensitivity of sacral afferents but may be related to changes in splanchnic afferents and/or specific response bias of discomfort thresholds.

OUTCOME OF EARLY FEEDING AFTER PERCUTANEOUS ENDOSCOPIC GASTROSTOMY. Luis Navarro, Alvaro Reymande. Depts. of Medicine and Gastroenterology, Damas Hospital, Ponce, PR.

**Objective:** These early PEG feeding trials were performed in order to evaluate their tolerance by patients, to determine complications if any and to determine if Hospital length of stay could be reduced.

**Methods:** Fourteen consecutive patients consulted to our service for PEG placement were evaluated during the months of June, 1994 to November, 1994. All fourteen underwent EGD with PEG placement using the two-step method. The early feeding process was used as follows: Immediately upon arrival to ward patients were given a stat dose of Metoclopramide Hydrochloride 5 mg IV followed by a second dose three to four hrs later. Enteral nutrition was begun three hours after PEG tube placement at a rate of 30-50 cc/hr. Patient's were examined afterwards on a daily basis.

**Results:** All fourteen patients tolerated the procedure well and none developed complications such as nausea, vomiting, abdominal distention and/or pain (where applicable), GI bleeding or diarrheas. Infection at the PEG site was seen in only one patient which required antibiotics and surgical debridement but not removal of the PEG tube. The other thirteen patients were or could be discharge from the hospital during the first 24 hours after PEG placement and feeding unless unable due to their primary or concomitant illnesses besides the PEG placement and feeding itself.

**Conclusions:** Our results suggest that early PEG feeding is well tolerated, has no major complications to the patient and if carried out can significantly decrease the hospital length of stay and therefore reduce the costs associated with it.

- **PHYSIOLOGICAL AND SYMPTOMATIC IMPROVEMENT FOLLOWING AN ANORECTAL BIOFEEDBACK TRAINING PROGRAM FOR INCONTINENCE AND CONSTIPATION: COMPARISON OF PATIENTS WITH AND WITHOUT IBS SYMPTOMS.** B. Naliboff, T. Hirsh, A. Kodner, N. Niazi, E.A. Mayer. CURE: VA/UCLA Gastroenteric Biology Center/Neuroenteric Biology Group; Depts. of Medicine and Psychiatry, UCLA and WLA VA Med Center.

Anorectal biofeedback training (ABT) is used both to increase pelvic floor muscle strength for patients with fecal incontinence (FI) and to normalize altered defecation in patients with constipation. Presence of IBS may negatively impact biofeedback outcome so IBS and non-IBS patients with incontinence and constipation were compared on physiological and symptom outcomes following short term ABT. **Methods:** 22 patients with chronic constipation including 14 without IBS and 8 with IBS (ROME criteria +) and 26 patients with FI (16 without IBS and 10 with IBS) were treated with anorectal biofeedback as part of their structured treatment at the UCLA Functional Bowel Center. Treatment for constipation patients consisted of training in relaxation and rectal EMG and balloon biofeedback for normal defecation. FI treatment included rectal EMG biofeedback for sphincter isolation and increasing strength and length of squeeze. **Results:** The initial manometry results for constipation patients indicated significant increases in EMG during simulated defecation (4.1 mV at rest, 12.2 mV defecation). EMG values during simulated defecation decreased for both patients with and without IBS (to 7.5 mV, p<.05). This was accompanied by decreases in amount of straining of 22% and 20% for the non-IBS and IBS groups respectively and overall improvement ratings of 28% and 33% for the two groups. For FI patients there was a significant increase in both resting (3.2mV to 4.5mV, p<.05) EMG and maximum squeeze (16.1mV to 28.1mV p<.05) for both groups. FI patients rated their overall improvement at 28% and 30% respectively for the IBS and non-IBS groups. Three month followup questionnaire data showed maintenance of changes for all groups. **Conclusions:** Both groups benefited from these brief BFB training protocols which emphasized home practice of muscle relaxation and strengthening exercises and relatively few (3-5) hospital sessions. For these patients presence of IBS symptoms along with incontinence or constipation did not adversely effect outcome over the three month followup period.

EFFECT OF OCTREOTIDE ON INTESTINAL MOTILITY AND SYMPTOMS IN HUMAN IMMUNODEFICIENCY VIRUS (HIV) SEROPOSITIVE SUBJECTS WITH DIARRHOEA. P.Neild, DFEvans, FDCastillo, DLWingate, BGGazzard. HIV Unit, Chelsea and Westminster Hospital and GI Science Research Unit, London Hospital Medical College, London, UK.

Administration of octreotide has marked effects on upper gastrointestinal motility patterns in both health and disease states. It has been used clinically in the treatment of refractory HIV-associated diarrhoea with some success. In this study we tested the hypothesis that symptomatic response with octreotide correlates with alteration in GI motility. **Methods:** 8 HIV seropositive subjects with chronic refractory diarrhoea were studied by intraluminal ambulatory manometry. A 3 sensor strain gauge catheter was introduced transnasally and positioned fluoroscopically around the ligament of Treitz. Continuous pressure recordings were made for 48 hours. In the second 24-hour period of the study 100µg subcutaneous octreotide tid was given. We analysed an 8 hour nocturnal fasting period and a 3 hour postprandial period on each day. Symptoms recorded, included frequency and consistency of bowel actions, nausea and abdominal pain. **Results:** Octreotide produced a significant increase in the number, of phase 3 (P3) migrating motor complexes (MMC). Frequency of contractions in the 3 hour period following a meal was decreased, as was the time to the first phase 3 MMC. Propagation velocity was not affected.

Median (interquartiles)	baseline	octreotide
No. of MMC/8hr	7(1-11)	10(5-12)*
Meal to P3/min	180(110-180)	60(30-60)*
Fed period freq/contractions/min	3(2-3.1)	1.3(1.2-2)*

\* P<0.05 Wilcoxon Rank Sum Test

Although 2 subjects reported improvement in frequency and consistency of bowel actions, overall there was no alteration in symptoms. **Conclusion:** Octreotide produced changes in upper GI motility, similar to those previously reported in healthy subjects, but this was not correlated with symptomatic improvement. This suggests that any beneficial effects of octreotide in HIV-associated diarrhoea may be mediated through functions such as secretion rather than changes in motility.