American Journal of Gastroenterology
© 2004 by Am. Coll. of Gastroenterology
Published by Blackwell Publishing

Vol. 99, No. 10, Suppl., 2004
ISSN 0002-9270/04/xx.xx

Abstracts Submitted for the 69th Annual Scientific Meeting of the American College of Gastroenterology

October 29–November 3, 2004, Orlando, Florida

ESOPHAGUS

1

"GASTROSCOPE-PUSH" METHOD TO HELP ENSURE SAFETY OF "BLIND" ESOPHAGEAL BOUGIENAGE

Joseph C. Yarze, M.D.. Gastroenterology Associates of Northern NY, Glens Falls, New York.*

Purpose: To describe an adjunctive endoscopic maneuver which assists in selecting patients in whom a "guided" method of esophageal bougienage will be potentially beneficial.
Methods: In general, wire-guided dilation is recommended when performing bougienage of complex, high-grade and eccentric esophageal strictures. Often, dilation of even wide-caliber, symmetrical esophageal strictures may benefit from the use of a "guided" dilation technique, as when a large hiatal hernia is present, or the entrance to the stomach is somewhat angulated. When there is any question as to whether a "guided" esophageal dilation method may be beneficial, after the upper endoscopic examination has been completed, the gastroscope is withdrawn into the mid esophagus with the tip of the insertion tube straightened and the control locks are positioned in the "off" position. The gastroscope is then gently advanced through the distal esophagus and into the gastric body region. If there is any "hang-up" or resistance to passage of the gastroscope (due to the esophageal stricture, a hiatal hernia, angulation or other impediment), I assume that performing "blind" bougienage may subject the patient to an increased risk of a complication, and then choose a wire-guided or direct (with a balloon) dilation method.
Results: Utilizing this "gastroscope-push" technique for over 12 years to aid in selection of esophageal dilation technique, a major complication related to the "push" maneuver or the performance of "blind" esophageal dilation (excluding perforation related to pneumatic dilation in achalasia or mucosal tear in ringed esophagus) has not occurred.
Conclusions: The "gastroscope-push" maneuver is a useful adjunctive technique which may be employed when the method of esophageal dilation is being selected, by aiding the endoscopist in determining whether a "guided" method of esophageal bougienage will be potentially necessary to minimize the risk of dilation-related complications.

2

DOES THE PROXIMAL PROBE OF 24-HOUR ESOPHAGEAL PH STUDIES ADD VALUABLE CLINICAL INFORMATION?

Larry E. Clark, M.D., David A. Peura, M.D., FA.C.G.. University of South Alabama, Mobile, Alabama and University of Virginia Health System, Charlottesville, Virginia.*

Purpose: Ambulatory 24-hour esophageal pH studies are often performed with dual proximal and distal pH catheter probes. The dual probe has been considered clinically valuable, especially for reflux patients with cough, asthma, hoarseness and chest pain. By using the new wireless pH monitor system (Bravo, Medtronics, Shoreview, MN), clinicians will lose the information gathered by the proximal probe. The purpose of this investigation was to evaluate in various groups of patients with gastroesophageal reflux, the additional clinical value of the information obtained from the proximal probe of dual probe pH monitoring.
Methods: A review was conducted of consecutive patients who received 24-hour dual probe esophageal pH monitoring at the University of Virginia during a two year period. The indications for the procedure and the frequency and findings of proximal and distal pH probe monitoring were examined.
Results: Two hundred sixty-nine patients had a pH study during the investigation period. Two hundred thirty were not taking proton pump inhibitors or H2 receptor antagonists at the time of the study and these patients formed the study group. The indications for the study were divided into four categories: a) extra-esophageal symptoms such as cough, asthma or hoarseness (31), b) chest pain (29), c) pre-operative confirmation of reflux before fundoplication (93), and d) symptoms refractory to medical management (77). More abnormal reflux scores were seen in the pre-operative group compared to the chest pain group (proximal probe $p = 0.004$, distal probe $p < 0.001$) and to the refractory medicine group (proximal probe $p = 0.0005$, distal probe $p < 0.0001$). No further comparisons between reflux groups revealed significant differences. By using McNemar's test to compare the frequency of positive reflux results for the proximal and distal probes, no significant differences were seen between the proximal and distal probe scores for the extra-esophageal and chest pain groups ($p = 1.0$) and for the total groups of study subjects ($p = 0.43$).
Conclusions: No significant differences were found between proximal and distal esophageal reflux monitoring, even for patients with extra-esophageal symptoms and chest pain. The proximal probe data added no additional valuable clinical information.

3

PRIMARY ESOPHAGEAL LYMPHOMA: EXPERIENCE AT ROSWELL PARK CANCER INSTITUTE

Krishdeep S. Chadha, M.D., Milind M. Javle, M.D., Francisco H. Ilizaliturri, M.D. State University of New York and Roswell Park Cancer Institute, Buffalo, New York.*

Purpose: Esophageal involvement by lymphoma is uncommon and observed in < 1% of lymphoma patients.Primary esophageal non- Hodgkin's lymphoma (PE-NHL) is extremely rare with no specific treatment guidelines and variable reported clinical outcome.
Methods: We conducted a retrospective study of patients with PE-NHL treated at Roswell Park Cancer Institute from 1993 to 2004. A total of six patients were identified from tumor registry data.The collected data was analyzed for patient demographics, HIV status, endoscopic features, Ann-Arbor stage, pathological features, treatment recieved and survival.
Results: The median age at diagnosis was 44 years (range: 32–76 years); most were males ($n = 5$). Two patients had concomitant HIV infection. The commonest symptom was dysphagia ($n = 6$), followed by weight loss ($n = 4$). On esophagoscopy, the lymphoma presented as a polypoid mass in the lower esophagus in 5 cases. The pathological features, staging, treatment and survival data is summarized in table1.
Conclusions: Despite the small number of patients,the present study represents the largest number of PE-NHL patients reported in literature. Diffuse large B cell type is the commonest histological form of PE-NHL. Prognosis is guarded at all stages and Ann Arbor staging is a suboptimal predictor of outcome.HIV positive status,esophageal perforation and T cell phenotype predict poor prognosis.The combination of rituximab with CHOP chemotherapy may be considered for B cell PE-NHL.

758

INCAPACITY FOR PHYSICAL ACTIVITY LIMITS WEIGHT LOSS AFTER ROUX-EN-Y GASTRIC BYPASS

Benjamin F. Merrifield, M.D., Christopher C. Thompson, M.D., Lee M. Kaplan, M.D.. Brigham and Women's Hospital, Boston, Massachusetts and Massachusetts General Hospital, Boston, Massachusetts.*

Purpose: Despite wide recognition that Roux-en-Y gastric bypass (RYGB) is the most effective treatment for severe obesity, there remains a wide variation among patients in the degree of post-operative weight loss. Factors that account for this variation are currently unknown. Identification of variables that influence weight loss after RYGB could aid patient selection and contribute to our understanding of the mechanisms by which the surgery works.

Methods: Twelve Preoperative clinical characteristics for 226 consecutive patients undergoing RYGB were examined for correlation with the decrease in body mass index (BMI) one year after RYGB. Variables were compared using linear regression and two-tailed t-test. Potential predictors of decreased BMI loss included: age, sex, presence of diabetes, depression, bipolar disease, osteoarthritis or hypertension, insulin use, operating surgeon, surgical approach (open versus laparosopic), and movement restriction. A typical movement restricted patient was defined as being unable to walk more than one block or climb a single flight of stairs, and demonstrated no capacity for therapeutic exercise. Variables were drawn from clinical data and patient response to a Paffenbarger Exercise Questionnaire administered before surgery.

Results: The mean decrease in BMI was $17+/-6$ kg/m^{2}and ranged from 3.8 to 38 kg/m^2. Of the clinical parameters examined, movement restriction was the strongest predictor of low weight loss (Table). There was also a modest but significant inverse correlation between age and post-operative weight loss ($r^2 = 0.265$, $p < .0001$). None of the other parameters examined correlated significantly with the degree of weight loss.

Conclusions: Physical restriction appears to be an important contributor to the variation in weight loss after RYGB. Restrictions on physical activity may limit the elevated energy expenditure, which has been shown to contribute significantly to the overall weight loss after RYGB. In patients with obesity-related comorbidities that may ultimately lead to decreased mobility, early intervention may improve surgical efficacy.

Table

Variable	Change in BMI (1 Year)	P-Value
No restricted movement	$-17.6 +/- 5$kg/m^2	<.0001
Restricted movement	$-13.8 +/- 5$kg/m^2	

INFLAMMATORY BOWEL DISEASE

759

ENVIRONMENTAL FACTORS EFFECTING INFLAMMATORY BOWEL DISEASE ACTIVITY

Mark Benson, M.D., Ravi Nadimpalli, M.D., Sanjay Garuda, M.D., Laurie Keefer, Ph.D., Ali Keshavarzian, M.D.. Rush University, Chicago, Illinois.*

Purpose: Inflammatory bowel disease (IBD) is a waxing and waning illness with many modulating environmental factors effecting disease activity. Many of these environmental factors are not well established and studies evaluating the effects of seasonal variation, menstrual cycle, NSAID ingestion, stress and dietary intake have yielded controversial results. The purpose of this study was to further examine the relationship of several of these factors, thought to influence disease activity, to patient's perceived disease activity.

Methods: This was a retrospective study involving 30 patients with IBD within the greater Chicago area (mean age = 51, 17 women, 13 men). Sixteen patients with Crohn's disease and 14 patients with Ulcerative Colitis were administered a telephone questionnaire designed to assess patient's perceived disease activity in correlation with variables such as season, stress, menstrual cycle, NSAID use, OCP use, and several dietary factors. Results were analyzed using one way chi-squared analysis.

Results: 73% of all patients reported increased symptoms with increased life stress ($p = .01$). 53% of all patients reported a perceived seasonal variation in their symptoms, with 50% of these reporting worse symptoms in winter, 25% in summer, 12.5% in spring and 12.5% in fall ($p = 0.72$). 36% of patients reported increased symptoms post dairy intake ($p = 0.14$). Among menstruating women, 40% reported increased symptoms during menstruation ($p = 0.43$). Of the patients who drank alcohol, 43% reported increased symptoms post EtOH ingestion ($p = 0.51$). Only 23% of patients reported worsening of symptoms with sugar intake and 27% of patients reported increased symptoms post NSAID use ($p = .003$ and $p = 0.01$ respectively, significant for not effecting perceived symptoms).

Conclusions: Our study found a significant association between life stress and perceived inflammatory bowel disease activity. Although trends were noted, our study reveals no significant association between perceived disease activity and season, dairy intake, menstruation, EtOH intake, sugar ingestion or NSAID use. Larger prospective studies focused on the influence of environmental factors and more specifically the role of stress and the therapeutic benefits of stress management on disease activity are warranted.

760

INFLIXIMAB USE DOES NOT INCREASE THE RISK FOR ABNORMAL PAP SMEARS IN WOMEN

Sunanda V. Kane, M.D., Deepa Reddy, M.D. University of Chicago, Chicago, Illinois.*

Purpose: Patients receiving infliximab are at an increased risk for the development of infections as well potentially neoplasia. Since abnormal Pap smears are associated with both infections and progression to cancer, we were interested in assessing the incidence of abnormal Pap smears in those women receiving infliximab infusions.

Methods: Women with Crohn's disease and results for at least 2 consecutive Pap smears were studied. The outcome of interest was an abnormal Pap smear (Atyical Squamous Cells, Low Grade Squamous Intraepithelial Lesion, High Grade Intraepithelial Lesion, cervical cancer). The exposure of interest was infliximab use. Clinical data collected included age, gynecologic history, level of cytologic abnormality, dosage and duration of inflixmab, use of concomitant immunomodulators, and other known risk factors of cervical neoplasia, including smoking, oral contraceptive usage and past history of cervical cancer.

Results: We studied 68 patients. There was no difference in smoking rate, oral contraceptive use or age at diagnosis of any cervical abnormalities between the group exposed to infliximab and those who were not. There were no cancers found. Women receiving infliximab did not have an increased risk for the development of an abnormal Pap than those women who did not receive infliximab (OR 1.63, 95% CI 0.59–4.48). Cases had received an average of 6 infusions prior to the diagnosis of cervical atypia. When analyzing by type of cytology (atypia, low grade dysplasia, high grade dysplasia), there were no differences between the two groups.

Conclusions: The incidence of abnormal Pap smears in women on infliximab is no higher than in women not receiving this agent. Further studies are necessary to determine what percentage of dysplasias seen may progress to malignancy.

761

METABOLITES TO IMMUNOMODULATORS ARE NOT DECTECTED IN BREAST MILK

Sunanda V. Kane, M.D., M.S.P.H., Daniel H. Present, M.D. University of Chicago, Chicago, Illinois and Mt Sinai School of Medicine, New York, New York.*

Purpose: No data are available regarding the level of metabolites in the milk of women taking immunomodulators to treat their inflammatory bowel disease. Current recommendations include cessation of these medications in women interested in breastfeeding their infants. The purpose was to determine the presence of any metabolites secreted into the breast milk of mothers taking immunomodulators during their pregnancy for maintenance of remission.
Methods: Women with a history of immunomodulator use for either Crohn's disease or ulcerative colitis during pregnancy were eligible. Milk produced within the first 6 weeks postpartum was collected along with maternal serum samples. Milk and sera were tested by ELISA for the presence of metabolites (6-TGn and 6-MMP) by Prometheus Laboratories.
Results: Milk and serum was collected from four women with Crohn's disease over a 12-month time period. All women were in remission at the time of the specimen collections. No metabolites were detected any of the four milk samples; therapeutic levels of 6-TGn were noted in all mothers (see Table). The milk to serum ratio was < 0.1 for all samples.
Conclusions: Early testing suggests that metabolites of immunomodulators are not expressed in breast milk in mothers taking these medications. These preliminary results are encouraging but require further validation.

	Serum 6-TGn	Milk 6-TGn	Serum 6-MMP	Milk 6-MMP
Patient 1	237 pmol/8x10 RBC	<2.3 pmol/50 ul	2004 pmol/8x10 RBC	<175.9 pmol/50 ul
Patient 2	242 pmol/8x10 RBC	<2.3 pmol/50 ul	undetected	<175.9 pmol/50 ul
Patient 3	227 pmol/8x10 RBC	<2.3 pmol/50 ul	2345 pmol/8x10 RBC	<175.9 pmol/50 ul
Patient 4	251 pmol/8x10 RBC	<2.3 pmol/50 ul	4500 pmol/8z10 RBC	<175.9 pmol/50 ul

762

CROHN'S PATIENTS RESPOND POORLY TO PPD SKIN TESTING LIMITING ITS UTILITY FOR TUBERCULOSIS SCREENING PRIOR TO INFLIXIMAB

Corey A. Siegel, M.D., Steve P. Bensen, M.D., Douglas J. Robertson, M.D., C. Fordham von Reyn, M.D.. Dartmouth-Hitchcock Medical Center, Lebanon, New Hampshire and Veterans Hospital, White River Junction, Vermont.*

Purpose: To evaluate the purified protein derivative (PPD) response rate in Crohn's disease patients compared to those with ulcerative colitis (UC), indeterminate colitis (IC) and a healthy control population.
Methods: As part of a study to evaluate the association between *Mycobacterium avium* complex and Crohn's disease, we placed intradermal skin tests for PPD, candida and mumps on 47 patients with inflammatory bowel disease. Blinded readers assessed patients 48 hours later for the presence of a delayed type hypersensitivity (DTH) reaction. Results were compared to those from 500 healthy controls from the same geographic region. Significance testing was performed utilizing a two tailed fisher exact test.
Results: Of the 47 patients with inflammatory bowel disease, 32 patients had Crohn's disease and 15 patients had UC or IC. 20 patients in the Crohn's group and 2 in the UC/IC group were on immunosuppressive medications (prednisone and/or azathioprine or 6MP). None of the 32 Crohn's patients responded to PPD. While this absolute rate appears substantially lower than that in the UC/IC (13%) and control (10%) populations, the finding did not reach classical levels of statistical significance ($p = 0.10$). Response to candida/mumps was similar between Crohn's patients and those with UC/IC ($p = 0.41$).
Conclusions: Crohn's patients responded poorly to PPD skin tests. While we cannot definitively exclude chance as an explanation for our results, it seems more likely that the observed difference is real and that small sample size limited our ability to reach statistical significance. Most Crohn's patients responded to candida/mumps, implying that there is selective anergy to PPD. The lower rate of response to PPD is due to either a true lower rate of exposure to tuberculosis, or more likely is disease or therapy induced. Since recrudescence of latent tuberculosis has been associated with the use of infliximab, tuberculin skin testing with PPD has been recommended prior to administration of the drug. However, these results suggest that PPD testing may be an inadequate modality to screen for latent tuberculosis in patients with Crohn's disease.

	N	PPD $\geq$ 5mm	Candida/Mumps $\geq$ 3mm
Crohn's	32	0 (0%)	25 (78%)
UC/IC	15	2 (13%)	14 (93%)
Controls	500	48 (10%)	Not available

763

BUDESONIDE IN THE TREATMENT OF INFLAMMATORY BOWEL DISEASE: A ONE YEAR EXPERIENCE IN CLINICAL PRACTICE AT THE MAYO CLINIC

Ashish Chopra, M.D., Edward V. Loftus, Jr., M.D., William J. Tremaine, M.D., Laurence J. Egan, M.D., William A. Faubion, M.D., Darrel S. Pardi, M.D., Karen A. Hanson, N.P., Therese A. Johnson, R.N., William J. Sandborn, M.D.. Mayo Clinic, Rochester, Minnesota.*

Purpose: To review the use of delayed release budesonide (Entocort EC®) in clinical practice at Mayo Clinic, and to compare non-FDA approved uses with the FDA-approved treatment indication.
Methods: Electronic medical records were used to identify patients seen in the Division of Gastroenterology and Hepatology at Mayo Clinic from November 1, 2001- November 1, 2002 who received a prescription for budesonide. Records were abstracted for the dose and duration therapy, as well as the patients' clinical outcome (classified as good, partial, or no response). The indications for the use of budesonide, past surgical history, and current ileocolonic anatomy were also noted.
Results: 230 patients were prescribed enteric budesonide, of whom 37 were lost to follow up. Indications for therapy included Crohn's disease ($n = 165$), microscopic colitis ($n = 28$), pouchitis ($n = 18$), ulcerative colitis ($n = 12$), celiac disease ($n = 2$), and miscellaneous ($n = 5$). Of the 230 patients, 108 (47%) were given budesonide for the FDA-approved indication (mild to moderate Crohn's disease of ileum and/or right colon), and 124 (53%) for non-FDA-approved indications. Of 193 patients that returned, 96 (50%) were subjectively judged as having a good response, 34 (18%) a partial response, and 63 (32%) had no response.
Of 165 patients with Crohn's disease, 108 (65%) were prescribed budesonide for the FDA-approved indication, and 57 (35%) were treated for non-FDA-approved reasons. In the FDA-approved group, 93 patients returned, of whom 57 (61%) had a good outcome, similar to previously published reports on the efficacy of budesonide. In the non-FDA-approved Crohn's group, only 12 patients (26%) achieved a good response.
Among the non-Crohn's group, budesonide was also beneficial in microscopic colitis and pouchitis. Of 22 patients with microscopic colitis, 17 patients (77%) had a good response. In the pouchitis group, there were 15 patients, 6 of whom (40%) experienced a good response.
Conclusions: In this retrospective review, when budesonide is used for the FDA-approved indication, the outcome is similar to that reported in previously published studies. Our results also confirmed the result of a previous trial that showed that budesonide is beneficial in collagenous colitis; and also suggests that budesonide may be used in the treatment of pouchitis, however prospective therapeutic studies should be considered.

764

PULMONARY VASCULITIS: A RARE EXTRAINTESTINAL COMPLICATION OF CHRONIC ULCERATIVE COLITIS

Prabhleen Chahal, M.D., David Midthun, M.D. Mayo Clinic, Rochester, Minnesota.*

Case: A 26year old Caucasian female, never smoker, presented to an outside medical facility with right-sided pleuritic chest pain. She denied any other systemic complaints. She was not taking any medications. Chest radiograph followed by CT identified multiple bilateral ill-defined pulmonary nodules