after first time IPAA, patients are very happy with the outcome and quality of life they achieve.

### 470

## Lactulose (LL) and macrogol induced diarrhea: at same stool weights colonic transit is slower with lactulose

Eva Fritz<sup>1</sup>, Reingard BK Rohrboeck<sup>1</sup>, Johann Hammer<sup>1</sup>\*, Rainer Lipp<sup>2</sup>, Christoph Hogenauer<sup>2</sup> and Heinz F Hammer<sup>2</sup>. <sup>1</sup>Abteilung für Gastroenterologie and Hepatologie, Universitätsklinik für Innere Medizin IV, Vienna, Austria; and <sup>2</sup>Medizinische Universitätsklinik Graz, Graz, Austria.

Purpose: Lactulose and macrogol are widely used as osmotic laxatives. Lactulose but not Macrogol is metabolised in the colon. To evaluate total and regional gastrointestinal transit in lactulose and macrogol induced diarrhea.

**Methods:** Subjects ingested 99 g/d lactulose (osmotic load: 285 mosmol/d, n = 7) or 59 g/d macrogol 4000 (125 mosmol/d, n = 6) for three consecutive days. On day two Tc99m-radiolabelled orange-juice and a delayed-release capsule containing 1 g 111In-labelled resin-pellets were ingested. Gamma-camera images were obtained. Small intestinal transit (SIT) was calculated as time from 10% gastric emptying to 10% filling of ascending colon. Mean residence time (MRT) in the proximal (ascending plus transverse colon) and distal colon (descending plus rectosigmoid colon) was calculated as area under the curve after plotting the percentage of counts in the region against time. Parameters of total colonic transit were total MRT and cumulative counts (CC) appearing in stool in 24 and 36 hrs. **Results:** Results are shown in the table. SIT was faster after LL without reaching significance. Although ingested osmotic loads of lactulose were double compared to macrogol, stool weights were comparable and total and distal colonic transit was prolonged.

**Conclusions:** Presumably transit delay in the distal colon is responsible for the compensation of large osmotic loads by allowing time for bacterial carbohydrate metabolism.

	Stool weight g/d	SIT min	MRT: Proximal colon min	MRT: Distal colon min	Total MRT min	CC 24 hrs %	CC 36 hrs %
LL	653 ± 317	51 ± 26	$582 \pm 98$	$403 \pm 145$	985 ± 232	$48 \pm 25$	79 ± 21
Macrogol	$522 \pm 157$	$90\pm41$	$491 \pm 122$	$159\pm103$	$651 \pm 130$	$85\pm15$	$100\pm0$
	ns	ns	ns	p < 0.01	p < 0.01	p < 0.05	p < 0.01

#### 471

**Factors that affect sedation and analgesia during colonoscopy** Brian J Gootzeit<sup>1</sup>, Zvi Alpern<sup>1</sup>, Peter F Ells<sup>1</sup>, Bonnie J Pollack<sup>1</sup> and Joseph C Anderson<sup>1\*</sup>. <sup>1</sup>Gastroenterology, Stony Brook University, Stony Brook, New York, United States.

**Purpose:** Prior knowledge of factors predictive of a difficult or painful procedure may be useful in scheduling or sedating patients undergoing colonoscopy. This study was done to assess patient satisfaction, pain, and sedation requirements during colonoscopy.

**Methods:** We enrolled 275 consecutive outpatient colonoscopies performed by experienced endoscopists at Stony Brook University. Data regarding gender, age, height, weight, bowel habits, pelvic surgery, and alcohol abuse (AUDIT-C) in the patient was recorded. Patients were sedated in stepwise increments with midazolam (1 mg) and fentanyl (25ucg) to a goal of spontaneous eye closure, but responsive to voice (Level II Sedation). Data recorded included procedure duration, extent of exam, sedation requirements, polypectomy, diverticular disease, and complications. Patients anonymously completed a survey regarding pain experienced (standardized 11-point box scale) and overall satisfaction (GHAA-9). Since sedation was given with incremental doses of midazolam and fentanyl, our analysis was based on the median midazolam dosage (5 mg). Chi-square analysis was performed. Results: 119 women (avg age 57.2 yrs) and 153 men (avg age 57.2 yrs) comprised the study group. The adjusted completion rate in men was 96.1% and in women was 95.8%. Women with a BMI < 25 were more likely (75.5%) to receive more than the median dose (5mg) of Midazolam than heavier women (52.4%) (p < .01). In both BMI groups, however, women were as likely to report a pain score <3 (83.0% vs. 83.3%; p = NS). There was a similar satisfaction score in both groups. There was no statistical age difference in these two BMI groups of women. There was no such finding for BMI and sedation in men. The duration of the procedure was longer in women than in men (p < .01). Women who had a longer procedure were more likely to report pain ( $\geq$ 3) than women who had a shorter procedure (56.7% vs. 22.0% respectively; p < .01). Prior pelvic surgery, bowel habits or diverticular disease did not impact the procedure. Women and men  $\geq 60$ years received Midazolam 5 mg significantly less often than older patients (p < .01). Three patients required a reversal of sedation and 1 patient's procedure was complicated by bleeding.

**Conclusions:** 1) Women with a BMI <25 were more likely to receive greater than 5mg of Midazolam to achieve the same level of sedation, pain and satisfaction scores. 2) Women who experienced a longer procedure were more likely to report a pain score of  $\geq$ 3.3) Patients older than 60 years were more likely to receive less than 5mg of Midazolam. These findings may have implications for colorectal screening with colonoscopy in women, particularly those with a BMI <25.

## 472

# Unusual case of giant non-parasitic hepatic cyst presenting as portal hypertension

Amnon Gotian, MD, David Greenwald, MD, Rajiv Bansal, MD\* and Lawrence J. Brandt, MD, MACG. Division of Gastroenterology, Montefiore Medical Center/Albert Einstein College of Medicine, Bronx, NY and \*Dept. of Medicine, North Shore University Hospital/NYU School of Medicine, Manhasset, NY.

**Introduction:** We present an unusual patient with a giant hepatic cyst causing compressing the portal vessels and presenting with portal hypertension.

Case report: A 54 year old female presented with a complaint of increased abdominal girth, decreased appetite, early satiety and intermittent BRBPR. Her past medical history included hypertension, iron deficiency anemia, multi-nodular goiter, and lactose intolerance. No previous hospitalizations, tobacco, alcohol, drug use, travel, or pets was reported. Physical exam revealed a soft, non-tender but distended abdomen with prominent dilated lower abdominal veins and a large palpable mass. A CT scan of the abdomen revealed multiple liver cysts, the largest measuring 20cm in the right lobe of the liver. MRI confirmed massive hepatomegaly with multiple cystic lesions, the largest measuring  $18 \times 20$  cm and occupying the entire right lobe of the liver. Liver chemistries, amylase, lipase, bilirubin, iron studies and ceruloplasmin were normal. Only an elevated ALP of 349 (N40-117) and GGT of 279 (N 8-40) were found. Serologies for echinococcus, hepatitis A, B, C and D, ANA, AMA, syphilis and alpha-1-AT were negative. Stool cultures and tumor markers AFP, HCG, CEA, CA 19-9, CA-125 were negative. A 3mm left renal simple cyst was also seen on ultrasound. Using US-guided drainage of the cyst, three liters of brown fluid were aspirated and a drain was left in place. The fluid contained numerous RBC, WBC, rare Gram (+) organisms and no malignant cells. A surgical decortication was performed. Pathologic study revealed a mesothelial cyst bordering normal liver parenchyma. She had an uneventful postoperative course and was discharged from the hospital. She remains asymptomatic without any sign of portal hypertension.

**Synopsis:** We present the clinical manifestations of a giant non-parasitic hepatic cyst. Although rare, this lesion should be included in the differential diagnosis of portal hypertension or obstructive jaundice.