

**Conclusion** Using our enteral feeding pathway and a multi-disciplinary approach, elective NGT feeding in HNC RT patients can be safely established using day-case facilities. It is a cost effective nutritional treatment with no significant complications identified. The pathway provides a clear, safe, efficient and effective approach to nutritional care in HNC RT patients.

**Competing interests** None declared.

## REFERENCES

1. **National Institute for Clinical Excellence.** *Improving Outcomes for Head & Neck Cancer*. London: National Institute for Clinical Excellence, 2004.
2. **Nugent, et al.** Enteral feeding methods for nutritional management in patients with head & neck cancers being treated with radiotherapy &/or chemotherapy. *Cochrane Database Syst Rev* 2010;**17**:CD007904.
3. **Walters, et al.** Dietetic service improvement for patients with head & neck cancer receiving radiotherapy treatment. University Hospital Southampton, 2010. (Unpublished).

## PMO-047 DIVERSION COLITIS TREATMENT WITH RAPIDLY FERMENTABLE FIBRE-SUPPOSITORIES

doi:10.1136/gutjnl-2012-302514b.47

<sup>1</sup>W Roediger,\* <sup>2</sup>R Le Leu, <sup>3</sup>T Jones. <sup>1</sup>Department of Surgery, University of Adelaide, Australia; <sup>2</sup>Flinders Centre for Cancer Prevention and Control, Flinders University of South Australia, Australia; <sup>3</sup>Department of Pharmacy, The Queen Elizabeth Hospital, Adelaide, Australia

**Introduction** Diversion colitis, a nutritional deficiency disease of short chain fatty acids (SCFAs) in the defunctioned rectum, responds to butyrate enemas but these are impracticable due to unpleasant malodour. Treatment with rapidly fermentable fibre to SCFAs as suppositories, seemed a preferable option and was tested.

**Methods** "Hi-maize 260" which is naturally high in resistant starch and is optimally fermented to n-butyrate in the colon<sup>1</sup> was formulated into 2.0 g suppositories with a binding agent of cocoa butter. Patients were selected on symptoms (blood stained discharge, or anorectal discomfort) for treatment. Suppositories were used on alternative nights for 14 days. Colonoscopic examination of the rectum was performed before and 6 days after completion of treatment.

**Results** "Hi-maize 260" produces a concentration of 20.3 mmol of butyrate in the colon. The diverted rectum of three patients showed severe macroscopic proctitis and mucosal appearances returned to normal after 2 weeks treatment. Long term recovery was not assessed as two patients had the diversion reversed.

**Conclusion** Dietary fibre suppositories are a convenient treatment for diversion colitis. The healing capacity of fermentable fibre should enable distinction between diversion colitis and ulcerative colitis or Crohn's Disease in a diverted rectum where further reconnection or proctectomy might be contemplated.

**Competing interests** None declared.

## REFERENCE

1. **Le Leu RK, et al.** Effect of high amylose maize starches on colonic fermentation and apoptotic response to DNA-damage in the colon of rats. *Nutr Metab* 2009;**6**:11–20.

## Obesity

### PMO-048 REDUCTION IN PRO-INFLAMMATORY CYTOKINES AFTER WEIGHT LOSS SURGERY: A PROSPECTIVE STUDY

doi:10.1136/gutjnl-2012-302514b.48

A Belgaumkar,\* K Carswell, R Mitry, R Hughes, A Dhawan, A Patel. *King's College Hospital, London, UK*

**Introduction** Morbid obesity is associated with a pro-inflammatory state, reflected by a relative increase in levels of pro-inflammatory

cytokines and corresponding decrease in anti-inflammatory cytokines. The production of active mediators by the adipose tissue plays an important role in this pathological state. We aimed to study the effects of laparoscopic sleeve gastrectomy (LSG) on markers of oxidative stress, inflammatory mediators interleukin (IL) 6 and IL-10, and the adipocytokines Resistin, Leptin and Adiponectin.

**Methods** We prospectively studied 19 patients (13 females, mean age 45 years; range 27–64) who underwent LSG at our institution. Fasting bloodsamples were taken pre-operatively and at 6 months post surgery. Fasting blood glucose, serum insulin and lipids were also measured at the same time points. IL-6, IL10, Adiponectin, Leptin and Resistin were measured using a bead-based multiplex bioassay. HOMA-IR was used as a measure of insulin resistance. Markers of oxidative stress—lipid peroxidation (TBARS) and glutathione peroxidase (GPX)—were measured using commercially available biochemical kits. Results are expressed as mean. Statistical analysis employed one-way ANOVA with repeated measures.

**Results** LSG was associated with significant weight loss (pre-op 60.0±2.59 kg/m<sup>2</sup>, vs 53.0±2.35 at 6 weeks, 45.8±2.0 at 6 months, p<0.0001). Insulin resistance decreased significantly (HOMA-IR 8.7±1.4 vs 3.8±0.7 vs 2.4±0.5, p<0.0001). IL-6 and Leptin levels were significantly lower at 6 months post-op (6.6±1.0 pg/ml vs 4.8±1.1, p<0.031; 16.4±3.1 ng/ml vs 5.3±1.2, p<0.001). Resistin, Adiponectin and IL-10 levels did not change significantly: Resistin 1.0±0.1 ng/ml vs 0.97±0.1; Adiponectin 11.7±1.8 µg/ml vs 9.9±1.5; IL-10 pg/ml 0.72±0.1 vs 0.67±0.1. There were no significant changes in TBARS or GPX.

**Conclusion** Insulin resistance and BMI fall significantly after LSG and this is accompanied by a fall in pro-inflammatory cytokines, IL-6 and Leptin. There was no concomitant rise in anti-inflammatory IL-10 and adiponectin. Markers of oxidative stress did not change significantly. Restrictive surgery results in improvements in insulin resistance and a significant reduction in weight. The resulting reduction in adipose tissue, with changes in production of the adipocytokines, has a complex effect on the inflammatory milieu and requires further elucidation.

**Competing interests** None declared.

### PMO-049 PRE-OPERATIVE WEIGHT LOSS IN PATIENTS UNDERGOING LAPAROSCOPIC GASTRIC BYPASS OR BAND

doi:10.1136/gutjnl-2012-302514b.49

G J Williams,\* P Georgiou, P P Tekkis, E Ethimiou. *Bariatrics, Chelsea and Westminster Hospital, London, London, UK*

**Introduction** To evaluate the number of patients that achieved loss of at least 10% of their excess body weight prior to undergoing laparoscopic gastric bypass or gastric band surgery.

**Methods** Forty consecutive patients (mean age 48.28 (SD 10.52); 36 females) that underwent laparoscopic gastric bypass or gastric band surgery between May and November 2011 by one surgeon (EE) were included in the study. Patients were identified using the hospital's prospective bariatric database. Inclusion criteria included: age over 18, primary bariatric surgery, Body Mass Index (BMI) over 35. SPSS statistical software was used for the analysis.

**Results** Fifty-two patients were identified using the database, of which forty fulfilled the inclusion criteria. The mean BMI was 46.67 (SD 5.13) at presentation and 43.15 (SD 4.31) at surgery. Thirty-six patients lost weight pre-operatively, of which twenty-nine achieved their target weight loss. The overall mean % excess weight loss was 17.81% (SD 8.04); of those who achieved the target weight loss, the mean excess body weight loss was 20.27% (SD 6.90). The mean time interval between decision to operate and date of surgery was 28 weeks (SD 14.52). This was not shown to