Endoscopic bougie dilatation is effective and safe for oesophageal and pharyngeal strictures: outcomes of a large case series

MR Smith†, B Drinkwater, M Widiak, NC Fisher. Gastroenterology, Dudley Group Hospitals NHS Foundation Trust, Dudley, UK

Introduction Endoscopic bougie dilatation is a traditional technique for managing oesophageal strictures. There are some safety concerns with this technique, but no corroborative evidence of this in controlled or uncontrolled studies to date.

Methods We evaluated the outcomes and safety of endoscopic bougie dilatation at our centre, using the endoscopy database to identify all dilatations done by a single operator. Bougies were the preferred option for all dilatations. All cases from January 2007 to March 2013 were then reviewed by case note analysis.

Results 146 patients were identified, who underwent a total of 346 bougie dilatations. Median age was 67 yrs (range 27–91). Indications for dilatation were: peptic stricture (80%), malignant stricture (14%), post-surgical stricture (12%), pharyngeal pathology (25%) and other (9%). Pharyngeal pathology was predominantly post-radiotherapy strictures (64%) and neurological (36%). In cases of peptic stricture, 78/80 (98%) had a good symptomatic response to an initial course of dilatation (requiring 1 procedure in 82%). Median end dilatation diameter was 17 mm (range 12–18). Recurrence requiring further dilatation occurred in 27 (34%), after a median of 8 months (range 3–47). In the remainder, median observed remission was 24 months (range 1–63). For pharyngeal pathology patients underwent a median of 2 dilatations (range 1–12). After initial dilatation, 12 (48%) achieved lasting benefit, 5 (20%) had no benefit and 8 (32%) benefited from periodic scheduled dilatations.

Discussion There is an ever increasing number of requests for coeliac serology, costing our local CCG £21,070 in 2013.

Conclusion This large case series supports the role of bougie dilatation as a safe and effective therapy for benign peptic strictures. With careful case selection it also appears a valuable, appropriate and safe option for a range of similar oesophageal and pharyngeal pathologies.

Disclosure of Interest None Declared.
diagnosis and AFIP scores to be independently associated with worse prognosis.

**Conclusion**
A combination of surgery and imatinib may be necessary to provide a curative treatment for GISTs and prevent recurrence. Although our study is limited by small numbers, current risk-categorisation models appear to over-estimate recurrence risk with discrepancies in predicting behaviour for certain low-risk tumours. A weighted scoring system combining independent factors associated with poor prognosis may prove as a more accurate clinical prediction tool.

**Disclosure of Interest**

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**Abstract PTU-163**

**URINARY VOLATILE ORGANIC COMPOUND ANALYSIS TO DISTINGUISH COELIAC DISEASE FROM IRITABLE BOWEL SYNDROME: A PILOT STUDY**

1) Covington, M McFarlane*, 2) R Hatbord, 3) E Westenbrink, 5) S Chambers, 6) A Dhilliwail, 7) N O’Connell, 7) C Bailey, 7) C Novaklo, 7) K Bardhan, 7) R Asanadam, 1) School of Engineering, University of Warwick, Coventry, UK; 3) Gastroenterology, UHCW, University of Warwick, Coventry, UK; 2) MOAC Doctoral Training Centre, University of Warwick, Coventry, UK; 7) Gastroenterology, Rotherham General Hospital, Rotherham, UK; 5) CSRI, University of Warwick, Coventry, UK

**Introduction**
Coeliac disease (CD) is a T-cell-mediated gluten sensitive enteropathy, affects ~1% of the UK population, and in adults presents with a wide range of clinical features; often mistaken for irritable bowel syndrome (IBS). Heightened clinical awareness and serological screening identifies these likely to have CD; the diagnosis confirmed by histological features in small bowel/duodenal biopsies. Limitations to diagnosis are false negative serology (e.g., in IgA deficient patients, the young and the elderly) and reluctance to undergo biopsy. Examining the pattern of urinary volatiles offers a novel non-invasive approach. The gut microbiome is perturbed in several gastrointestinal diseases, including coeliac disease, increasing gut permeability and altered gluten peptide metabolism, we hypothesised, would change the urinary VOC pattern creating a unique “fermentome” pattern, distinguishable from IBS. We investigated this by examining the urinary VOC pattern using Field Asymmetric Ion Mobility Spectrometry (FAIMS).

**Methods**
47 patients were recruited, 27 with CD and 20 with diarrhoea-predominant IBS (D-IBS). Urine was collected and 10ml aliquots were stored frozen in universal containers. For assay, the containers were heated to 40 ± 0.1°C. The headspace above the sample was then analysed by FAIMS. Linear discriminant analysis (LDA) was used for statistical evaluation.

**Results**
LDA showed that FAIMS distinguishes the VOC pattern in CD vs D-IBS with a sensitivity and specificity of 85% respectively.

**Conclusion**
This pilot study suggests that FAIMS offers a novel non-invasive approach to identify those likely to have CD, and distinguishes from D-IBS. It may have the potential to non-invasively track the progress of CD when on a gluten-free diet, to monitor adherence and observe changes.

**Disclosure of Interest**
None Declared.

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**Abstract PTU-164**

**EVIDENCE OF TWO AETIOLOGIES OF GASTROESOPHAGEAL JUNCTIONAL CANCERS BASED ON GASTRIC PARIETAL CELL DENSITY**

1) MH Derakhshan*, 2) T Harvey, 3) R Ferrier, 4) EY Robertson, 5) C Orange, 6) M Forshaw, 7) JJ Going, 7) KE McColl, 1) Institute of Cardiovascular and Medical Sciences, University of Glasgow, Glasgow, UK; 2) Institute of Cancer Sciences, University of Glasgow, Glasgow, UK

**Introduction**
Serum peptidogen I/I ratio, a surrogate marker of atrophic gastritis, suggests that some adenocarcinomas at the gastroesophageal junction (GOJ) develop on a background of atrophic gastritis, similar to non-cardia gastric cancer, while others arise on a background of healthy, non-atrophic gastric mucosa similar to oesophageal adenocarcinoma. In this current study, we have directly the background gastric body mucosa in patients with junctional adenocarcinomas compared to oesophageal adenocarcinomas and non-cardia gastric cancers.

**Methods**
127 gastrectomy and oesophagectomy specimens for adenocarcinoma were identified for which clear topographic description allowed assignment to oesophageal, junctional (including cardia) and gastric non-cardia locations. In these gastric body mucosa specimens, well clear of the tumour margin, parietal cells were immunostained using anti- H+/K+ ATPase. Parietal cell density was counted in 3 to 5 well-oriented fields (1 mm² each) and expressed as mean parietal cell number per 1 mm² area. Total mucosal thickness, glandular thickness, intestinal metaplasia, inflammation indicated by polymorphonuclear (PMN) and monocellular (MN) cells and reactive atypia (RA) were also scored. Non-parametric statistics were used to compare distributions.

**Results**
Ten (8%) cases lacked well-oriented blocks of body mucosa. The remaining 117 patients included 34 oesophageal, 52 GOJ and 31 non-cardia gastric adenocarcinomas. Median (IQR) parietal cell densities were 836 (173), 602 (389) and 411 (334) per mm² in gastric mucosa of oesophageal, GOJ and gastric cancers, respectively (all differences P < 0.001). Using a parietal cell density of 630/mm², 85% of oesophageal adenocarcinomas had a higher and 84% of non-cardia gastric cancers had a lower values. With the same cut-off, 50% of GOJ adenocarcinomas were gastric and remaining was oesophageal in origin.

Glandular mucosa was thicker in patients with GOJ cancer compared to gastric (0.735 vs. 0.660, p = 0.005) and thinner