to tortuous anatomy compared to conventional braided stents. The first covered removable oesophageal stent is now available consisting of a knitted Nitinol skeleton with large heads covered in silicone, but the shaft only externally covered by an ePTFE membrane. In vitro it has better conformability but comparable radial force to standard braided stents. We report the first experience world-wide with this type of device.

Methods All consecutive patients over a 9-month period referred for oesophageal stenting had an Egis stent (BVM Medical, Hinckley, UK/S&G Biotech, Seoul, Korea) placed under fluoroscopic guidance. Stents with anti-reflux valve were used if the lower end had to be placed in the stomach. Patients were followed up prospectively until death or stent failure. Clinical outcome was compared to the results from the national Registry of Oesophageal Stenting (ROST). The device is CE marked and was used within its license. Institutional review board was nevertheless sought and granted. The manufacturer made 30 stents were available for evaluation free of charge.

Results 22 patients with malignant dysphagia and 2 with a benign post-radiation stricture had an EGIS oesophageal stent inserted. Median immediate stent expansion at insertion was 45% (25%–100%) increasing to 100% (60%–100%) after 1 week. Minor complications occurred in 8% compared to 14% in the national audit. No stent migrated from the oesophagus above the cardia, partial migration occurred in 1/15 stents (9.8%) placed across the GO-junction, comparing favourably to a migration rate of 4.3% (mid-oesophagus) and 18% (cardia) from the national audit. Improvement in dysphagia was comparable with a pre-stent median score of 3 (2–4) improving to 2 (0–3) at 48 h and to 1 (1–3) after 1 week. The two stents inserted for benign strictures were removed endoscopically by inversion through capture of the lower purse string. Initial difficulties with the delivery system were identified and corrected by the manufacturer.

Conclusion Limited first experience shows the EGIS oesophageal stent to perform at least as good as the large variety of existing oesophageal stents. There may be a benefit in terms of reduced stent migration, particularly if placed across the adverse anatomy of the GO-junction, but more extensive experience is required. Palliation of dysphagia is as good as with conventional stents. The stent should be particularly considered in tortuous anatomy due to the excellent conformability.

Abstract PTU-188 Figure 1

Competing interests J Cain: None declared, T Westwood: None declared, C Gordon: None declared, R Frost: None declared, H-U Laasch Consultant for: S&G Biotech.

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PTU-189 ARE THE CURRENT MANAGEMENT STRATEGIES FOR T1/T2 N0 OESOPHAGEAL CANCER OPTIMAL?

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Introduction Currently patients with Stage 1 (T1/T2 N0) oesophageal cancer proceed straight to surgery; these patients have an expected 60%–90% 5 year survival. This staging is based on EUS (endoscopic ultrasound) and CT imaging, which are accurate in 90% and 70% for T stage respectively and 70% in N stage for EUS. However, reporting of postoperative histology reveals a significant proportion of these patients end up with locally advanced (T3 N1/0) disease, leading to a 5-year survival of 25%. The aim of this study is to assess the results based on the current UK protocols.

Methods This study includes all patients who underwent an oesophagectomy over a 4-year period (2008–2011), focusing on those with T1/T2 N0 disease. After comprehensive staging which included endoscopy, EUS, CT and PET scanning all patients results were reviewed. Data on patients with T1/T2 N0 disease who went straight to surgery were analysed. The primary end points included a review of the number of patients who had a higher staging on post-operative histology and also the peri-operative mortality, morbidity and survival.

Results 167 oesophagectomies were carried out during the study period in our institution, of which 26 (15.6%) were for preoperatively staged T1/T2 N0 disease (6 T1 and 20 T2). The mean age was 68 years and 18 (69.2%) of the patients were male. Ivor-Lewis oesophagectomies were performed on 23 patients, minimally invasive 3-stage procedures in 2 and 1 had a trans-hiatal operation. Postoperative histology indicated a higher stage of disease in 54% (14) of patients, 10 had a T3 lesion while 10 patients were noted to have nodal disease. One (3.8%) patient died on the 8th post-op day with bowel ischaemia and major or minor complications occurred in 11 (42%) of patients peri-operatively. Disease recurrence was seen in 4 (15.3%) patients at 15 to 18 months post-operatively, 3 (75%) of these had stage migration on histology to a higher stage and two have died.

Conclusion Our study concludes that in patients with T1/2 N0 oesophageal cancer, despite the high specificity and sensitivity of both EUS and CT scan we still seem to have a large proportion of patients who are under staged and often offered curative operations, which appear to result in sub-optimal management leading to early recurrence and poorer long-term outcomes. Further studies are essential for accurate assessment of this stage of disease so that appropriate treatment strategies can be implemented for the management of oesophageal cancer.

Competing interests None declared.

PTU-190 ISOLATED UPRIGHT OESOPHAGEAL ACID EXPOSURE IS ASSOCIATED WITH LESS FAVOURABLE OUTCOMES AFTER LAPAROSCOPIC ANTI-REFLUX SURGERY

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Introduction With the increasing use of antireflux surgery since the widespread dissemination of the laparoscopic approach, preoperative indicators to predict success could reduce the number of patients with a poor outcome. The aim of this study was to identify if poorer outcomes could be predicted in patients with upright reflux alone vs mixed upright and supine reflux, in the presence of a positive DeMeester score.

Methods This was a retrospective cohort study of all patients undergoing antireflux surgery from 2001 to 2009 in a tertiary centre under a single surgeon. Patients undergoing fundoplication and/or repair of paraoesophageal hernias were included. Patients underwent preoperative assessment by means of endoscopy, oesophageal manometry and 24 h oesophageal pH monitoring. Patients were grouped on the basis of their 24 h pH profile into upright refluxers (daytime increased oesophageal acid exposure) and mixed refluxers (night-time increased oesophageal acid exposure +/− daytime reflux). Primary outcomes included if the patient had stopped PPIs following surgery and the incidence of postoperative dysphagia, vomiting and reflux symptoms. Secondary outcomes included if the patients deemed the operation a success.

Results 120 patients were included, with a median age of 49 years (range 24–81) at time of surgery. 53% (n=63) were male and 93% were laparopscopic procedures. 100 patients (83.3%) had Nissen fundoplication and 13% had a combination of fundoplication and paraoesophageal hernia repair. A DeMeester score >15 was present in 97.8% (n=88) patients, with 21% (n=19) patients having upright reflux and 68.5% (n=63) having mixed reflux symptoms on pH studies. Mixed refluxers were nearly twice as likely to have significant oesophagitis (grade B+) and or Barrett's oesophagus on preoperative endoscopy (mixed reflux 57.1% vs 31% upright reflux; p=0.051). Those patients with mixed reflux symptoms were significantly more likely to stop PPIs postoperatively (mixed reflux 96%, n=48 vs 75% n=12, upright reflux; p=0.01). Further, the incidence of significant post operative dysphagia was doubled in the upright reflux group (upright reflux 53.3% vs mixed reflux 26.7%; p=0.058). Overall, 83.5% (n=76) deemed the operation to have been a success, 7.7% (n=7) a partial success and 8.8% (n=8) considered that surgery had failed to improve their symptoms.

Conclusion In addition to the DeMeester score for predicting outcomes in antireflux surgery, the presence of reflux only in the upright position may indicate a poorer outcome.

Competing interests None declared.

PTU-191 CIRCUMFERENTIAL RESECTION MARGIN <1 MM FOLLOWING NEOADJUVANT CHEMOTHERAPY DOES NOT ADVERSELY IMPACT SURVIVAL IN PATIENTS UNDERGOING OESOPHAGECTOMY

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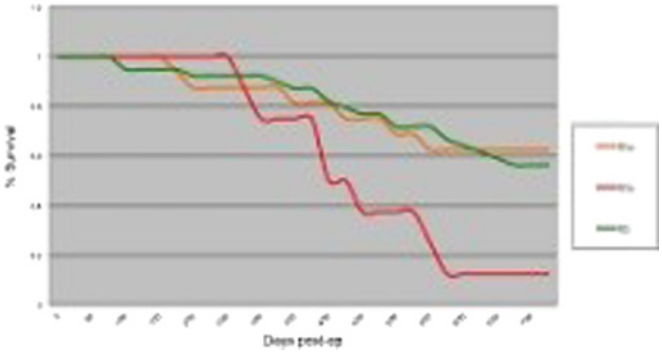
Introduction The TNM 7 classification system for oesophageal cancer defines circumferential resection margin (CRM) involvement as R0 (>1 mm), R1a (<1 mm), and R1b (involved margin). The prognostic importance of CRM involvement is unclear with previous studies demonstrating conflicting results. We evaluated survival according to CRM status for patients with locally advanced oesophageal adenocarcinoma who had neoadjuvant chemotherapy prior to Ivor Lewis en bloc oesophagectomy with extended lymphadenectomy.

Methods Since 2006, the CRM has been classified as R1a, R1b or R0, assessed by two specialist upper gastrointestinal pathologists in our unit. Since 2007, NAC prior to oesophagectomy was introduced as standard practice in patients with locally advanced oesophageal adenocarcinoma. A retrospective review of prospectively collected data were performed on all patients who underwent oesophagectomy for oesophageal and gastroesophageal junctional adenocarcinoma including demographic data, NAC, final histology, 30, 60, 90 and in-hospital mortality, and survival. Patients with proximal and distal resection margin involvement were excluded. The primary outcome was overall survival evaluated by Kaplan–Meier survival analysis.

Results 63 consecutive resections were included. 62% (n=39) were R0, 25% (n=16) were R1a and 13% (n=8) were R1b. 2-year overall survival was 56%, 63% and 13% respectively, with a statistically significant reduction in survival between R1b and R1a/R0 (p<0.05). Local recurrence rates were similar for R0 (8%), R1a (19%) and R1b (13%). The rate of distant metastases was higher in R1b (75%) compared to R0 (19%) and R1a (20.5%). Univariate analysis demonstrated that poor survival was associated with R1b but not R1a or R0.



Abstract PTU-191 Figure 1 Kaplan–Meier overall survival according to CRM.

Conclusion R1a and R0 CRM are associated with equivalent recurrence (local and distant) and survival rates to R0 in patients with oesophageal and GOJ adenocarcinoma following NAC and oesophagectomy. R1a CRM involvement does not adversely survival in patients with oesophageal and GOJ adenocarcinoma following NAC.

Competing interests None declared.

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PTU-192 TIME: PROSPECTIVE STUDY COMBINING ENDOSCOPIC TRIMODAL IMAGING AND MOLECULAR ENDPOINTS TO RISK STRATIFY BARRETT'S OESOPHAGUS

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Introduction Biomarkers have been proposed to improve risk stratification in Barrett's oesophagus (BO), however molecular heterogeneity of BO can hamper detection of molecular changes in random biopsies. Use of Autofluorescence Imaging (AFI) within endoscopic Trimodal Imaging (ETMI) can improve dysplasia detection, but has high false positive rate. Aims of study were (a) validate biomarkers previously published in separate patient cohorts in single study (b) assess whether AFI can increase detection of biomarkers (c) combine ETMI and biomarkers to improve risk stratification of patients with BO.

Methods Prospective European multicentre study. Each patient underwent ETMI with targeted biopsies on AFI positive (AFI+) areas and one AFI negative (AFI−) area, as well as random