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PTU-165 **ENDOSCOPIC RESPONSE OF OESOPHAGEAL CARCINOMA TO NEO-ADJUVANT CHEMOTHERAPY AND SURVIVAL POST-OESOPHAGECTOMY**

doi:10.1136/gutjnl-2012-302514c.165

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Introduction Endoscopy and biopsy is an essential initial investigation in oesophageal carcinoma. At our unit a repeat endoscopy is conducted after a patient has completed neo-adjuvant chemotherapy and prior to proceeding to oesophagectomy, predominantly to obtain anatomical information. This study aims to determine whether prognostic information can be derived from the response to chemotherapy.

Methods Data were retrospectively collected for patients who had undergone oesophagectomy following neo-adjuvant chemotherapy under a single surgeon over a 10-year period. At endoscopy after chemotherapy, it was noted whether the tumour had made a complete response, a partial response or no response at all, according to length, circumferential involvement and degree of stenosis. Survival data were obtained and compared between groups.

Results 72 patients (60 Male, 12 Female) were identified. 25 patients had no response to neo-adjuvant chemotherapy as assessed endoscopically and had a median survival of 27 months and 2-year survival of 38%. 39 patients showed a partial response endoscopically and had a median survival of 30 months and a 2-year survival of 40%. For the eight patients who had a complete response median survival was 57 months and 2-year survival of 68%.

Conclusion The response to neo-adjuvant chemotherapy as assessed endoscopically is predictive of post-operative prognosis. A larger study is required to determine if endoscopic assessment could be used to select patients unlikely to benefit from surgery.

Competing interests None declared.

PTU-166 **COMPARATIVE OUTCOMES FOLLOWING SURGERY FOR PATIENTS ENTERING OE02 AND MAGIC NEO-ADJUVANT REGIMENS**

doi:10.1136/gutjnl-2012-302514c.166

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Introduction MAGIC¹ regimen of three cycles of ECF chemotherapy pre- and post-op is widely used in gastric cancer but its use in oesophageal cancer remains controversial. We have compared post operative survival outcomes of oesophageal and GOJ cancer patients entered into either OE02² (2 cycles of CF pre-operatively) or MAGIC regimen to determine if either is advantageous.

Methods A database of cancer resections was maintained from 2000 until present. Patients fit for treatment were mainly given OE02 regimen from 2002 to 2006 and MAGIC regimen from 2006-present. The database was searched for patients receiving pre-operative chemotherapy using either ECF/X or CF/X. Kaplan–Meier survival analysis was undertaken using log-rank test for comparisons.

Results Median follow-up was more than 8.5 years for the 97 patients with complete data in the OE02 group and 3.7 years for the 138 complete patients in the MAGIC group. Oesophageal cancer patients that had received MAGIC regimen pre-operatively had

significantly longer median survival compared to those that had received OE02 (34.0 months vs 23.4 months, $p=0.033$). A significant benefit was not shown in GOJ cancer (MAGIC: 32.3 months, OE02: 23.5 months, $p=0.095$)

Conclusion Oesophageal cancer patients attending for curative surgery that commenced treatment with MAGIC style chemotherapy have better survival than patients that started OE02 regimen.

Competing interests None declared.

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PTU-167 **THE ROLE OF PROTON PUMP INHIBITORS IN PATIENTS WITH BARRETT'S OESOPHAGUS FOLLOWING LAPAROSCOPIC FUNDOPLICATION CAN ONLY BE DETERMINED AFTER THE LEVEL OF RESIDUAL REFLUX HAS BEEN QUANTIFIED**

doi:10.1136/gutjnl-2012-302514c.167

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Introduction Laparoscopic fundoplication is carried out for pathological Gastro Oesophageal Reflux in patients with and without Barrett's oesophagus. It has been suggested that in patients with Barrett's, only those patients with no physiological evidence of reflux post surgery have any reduction in risk of transition to cancer. The aim of this study is to quantify and compare residual reflux post fundoplication in patients with and without Barrett's Oesophagus.

Methods Data were collated from January 2002 to December 2011, using the hospital coding database for a single consultant surgeon. Each case was studied for patient demographics, indication, operative findings and outcomes. Prospectively collected data on pre and post operative pH manometry was assessed for evidence of reflux. Total percentage time less than pH 4 was used to determine reflux and a paired t-test was used to compare reflux between the groups. **Results** 78 patients had a Nissen Fundoplication, 32 with Barrett's oesophagus. There was no significant difference between age and sex of the Barrett's and non Barrett's groups. There is seen to be a significant difference in reflux between the pre operative groups ($p=0.0227$) when looking at reflux, but a very significant difference ($p=0.0038$) when comparing reflux postoperatively between those with and those without Barrett's.

Conclusion There is a significantly higher level of residual reflux in patients with Barretts oesophagus following fundoplication even when patients report no symptoms. Therefore those with Barrett's should continue with Proton Pump Inhibitors until there is confirmed evidence of no reflux.

Competing interests None declared.

PTU-168 **2-STAGE OESOPHAGECTOMY CONFERS NO SURVIVAL ADVANTAGE OVER TRANSHIATAL RESECTION: ANALYSIS OF 550 CONSECUTIVE CASES IN A SINGLE UNIT**

doi:10.1136/gutjnl-2012-302514c.168

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Introduction The optimal operative approach to resectable cancers of the oesophagus and oesophago-gastric junction is contentious. Both

transhiatal (THO) and 2-stage (2-ST) resections are routinely practised in our unit, largely according to individual surgeon preference.

Methods A prospectively collected database containing 550 consecutive resections was available for analysis. All other variables (Investigation, MDT decision making and ITU input) were consistent within the unit.

Results Between 2000 and 2010, 267 patients underwent THO and 283 had 2-ST oesophagectomy. Demographics showed equal characteristics between the groups with a median age of 65 years old and a predominantly male population. Adenocarcinomas made up 79% of resections. 330 (60%) patients underwent neo-adjuvant chemotherapy. 58% were pre-operatively staged as having stage 3 disease. In-hospital mortality was 1.1% (THO) vs 1.5% (2-ST). Hospital stay was similar between the two groups (median 14 days vs 15 days). Median survival on Kaplan–Meier analysis was 49 months for THO vs 34 months for 2-ST ($p < 0.0005$). Further analysis of the 2-ST procedures showed median survival of 40 months, 29 months and 23 months for laparoscopic assisted, left thoraco-abdominal and ivor-lewis resections respectively.

Conclusion Only one randomised trial has ever compared the two operative approaches, demonstrating no survival advantage for more radical 2-Stage surgery. Quality of life data may support transhiatal resections. Our data suggests that transhiatal resections carry a low post-operative mortality with good long term survival rates that are at least comparable to 2-Stage procedures. Transhiatal oesophagectomy is a viable alternative in the treatment of oesophageal cancer.

Competing interests None declared.

PTU-169

GIANT HIATUS HERNIA REPAIR: A SINGLE-CENTRE EXPERIENCE OF THE CRURASOFT® (BARD) COMPOSITE MESH

doi:10.1136/gutjnl-2012-302514c.169

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Introduction Use of prosthetic mesh is advocated in giant hiatus hernia repair to reduce the chance of recurrence. However, complications related to the use of mesh at the oesophageal hiatus have been reported. Composite meshes have been developed which have a lower adhesive potential and may reduce complication rates. We report the outcome of a large case series of patients undergoing hiatus hernia repair using the composite Crurasoft® (BARD) mesh.

Methods A retrospective study was performed of all patients who had undergone primary or recurrent hiatus hernia repair using Crurasoft® (BARD) mesh in a single tertiary referral centre. Patient demographics, pre-operative investigations, operation and follow-up details were recorded.

Results Over a 6-year period 53 patients underwent laparoscopic hiatus hernia repair using Crurasoft® (BARD) mesh, of which 36 patients had a primary giant hiatus hernia repair. A concurrent anti-reflux procedure was performed in 44 patients. There were three conversions to open operation, two in patients undergoing primary repair due to difficulties reducing the stomach, and one in a patient undergoing surgery for recurrence due to adhesions. The median time for follow-up was 45 months (range 8–94). Significant complications included dysphagia in 12 (22.6%) patients, which was due to an oesophageal stricture in 2 (3.8%) patients. Mesh erosion into the oesophagus occurred in 2 (3.8%) patients, and 12 (22.6%) patients developed a symptomatic recurrence. Reoperation within 30 days of initial surgery was required in 5 (9.4%) patients and was due to an early recurrence in 3 (5.7%) patients. There were no mortalities.

Conclusion The composite Crurasoft® (BARD) mesh can successfully be used in giant hiatus hernia repair. However, this mesh does

not prevent significant mesh related oesophageal complications and is associated with a high recurrence rate.

Competing interests None declared.

PTU-170

A COMPARISON OF THE EARLY QUALITY OF LIFE OUTCOMES BETWEEN OPEN AND LAPAROSCOPIC OESOPHAGOGASTRIC RESECTIONAL SURGERY

doi:10.1136/gutjnl-2012-302514c.170

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Introduction There is a paucity of data directly comparing health related quality of life (HRQL) between laparoscopic and open oesophagogastric resections. This study aims to evaluate differences between these groups in the early postoperative period.

Methods The European Organisation for Research and Treatment Quality of Life Questionnaire Core 30 (EORTC QLQ-30) was administered to 34 patients preoperatively, and 1 month following laparoscopic gastrectomy (n=6), open gastrectomy (n=8), open two-phase oesophagectomy (n=7), and two-phase oesophagectomy with laparoscopic gastric mobilisation (n=13). Mann–Whitney U tests were used to compare HRQL between open and laparoscopic resections, and related sample Wilcoxon signed rank tests were used to compare 1 month and preoperative HRQL.

Results There was no significant difference in median preoperative functional and global HRQL between both the open and laparoscopic gastrectomy groups (10 vs 11, $p=0.41$; 11 vs 11, $p=1.00$), and between the open and laparoscopic-assisted oesophagectomy groups (18 vs 11, $p=0.18$; 10 vs 11, $p=0.70$). Functional HRQL worsened significantly at 1 month with both open gastrectomy (18 vs 10, $p=0.01$) and open oesophagectomy (18 vs 11, $p=0.02$), but not with laparoscopic gastrectomy (15 vs 11, $p=0.11$) and laparoscopic assisted-oesophagectomy (15 vs 18, $p=0.81$). Global HRQL was significantly worse at 1 month with open gastrectomy (7 vs 11, $p=0.04$), but not in the other groups. Global HRQL was also found to be significantly higher at 1 month in the laparoscopic assisted oesophagectomy group compared with open oesophagectomy (10 vs 8, $p=0.03$).

Conclusion These results demonstrate significant differences in HRQL between open and laparoscopic oesophagogastric resections even at 1 month, which may indicate that the laparoscopic approach is associated with faster postoperative recovery.

Competing interests None declared.

PTU-171

OESTROGEN PLAYS A CRITICAL ROLE IN MURINE EPITHELIAL HEALING IN A BUCCAL MODEL OF REFLUX INJURY

doi:10.1136/gutjnl-2012-302514c.171

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Introduction Severe oesophagitis, oesophageal adenocarcinoma (OAC) are more common in men and post-menopausal women. Female sex hormones may protect pre-menopausal women from gastro-oesophageal reflux mediated mucosal damage, delaying the onset of BO and development of OAC in women. We have demonstrated more rapid mucosal healing and less inflammatory response in females in a murine buccal model of reflux injury. We have used a model comparing intact female mice with oestrogen deprived mice (by removal of their ovaries) to determine if this effect may be oestrogen driven.