bilateral ovariectomy but this did not quite attain statistical significance (HR 2.19, 95% CI: 0.98–4.86). The remaining reproductive factors analysed were not associated with risk of gastric cardia or non-cardia cancer.

Conclusion The results of this study suggest that reproductive factors in women may influence risk for gastric cancer, particularly non-cardia gastric cancer.

### Abstracts

**PTU-011 PREDICTORS OF MORTALITY AND REBLEEDING OUTCOMES AFTER PEPTIC ULCER BLEEDING**

1Keith Siau*, 2Anitha Vijayasingam, 3Brian McKaig, 1Joint Advisory Group, London, UK; 2Royal Wolverhampton NHS Trust, Wolverhampton, UK

Introduction Peptic ulcer disease (PUD) accounts for 25%–56% of acute upper gastrointestinal bleeding (AUGIB) cases and is associated with high rates of mortality and rebleeding. We aimed to assess the rates and factors associated with 1 year mortality and rebleeding in patients with bleeding PUD.

Methods This was a single-centre study of patients with AUGIB and endoscopic confirmation of PUD between November 2012–2014. All patients received at least 1 year of retrospective follow-up after endoscopy. Electronic records were scrutinised for outcomes of mortality and bleeding, with time-to-event analyses performed using a Kaplan-Meier plots and Cox-regression.

Results 91 patients (median age 78.4, 65.9% male) were included. 63.7% were admitted with AUGIB and 36.3% bled during their inpatient stay. Mortality at 30 days and 1 year were 12.1% and 34.1% respectively, with 1 year mortality included inpatient bleeding (hazard ratio of 33.3%), unknown (26.7%). On univariate analysis, predictors of 1 year mortality included inpatient bleeding (hazard ratio [HR] 2.38, 95% CI: 1.18–4.83, p=0.016) [Figure 1], age (HR 1.036 per increase, 95% CI: 1.009–1.065, p=0.009), Forrest classification (HR 2.22 for class 1 and 2 vs. 3, p=0.04), Rockall Score (HR 1.64 per increase, 95% CI: 1.28–2.10, p<0.001), Charlson index (HR 1.34 per increase, p<0.001), aspirin use (HR 3.05, p=0.003), rebleeding (HR 5.52, p<0.001). The effect of inpatient bleeding on mortality was not significant (p=0.19) after adjusting for Charlson index. H. pylori was positive in 35.7%; eradication was associated with reduced mortality even after adjusting for Forrest classification and age (HR 0.30, p=0.007). Multivariable analyses to account for age are shown in table 1. The 1 year rebleeding rate was 7.8%. Higher haemoglobin on discharge (HR 0.940 per 10 g/dL increment, p=0.04), Forrest 3 ulcers (HR 0.18, p=0.02) and H. pylori eradication (HR 0.214, p=0.02) were significantly associated with reduced rates of rebleeding.

Conclusion Increasing age, higher Rockall and Charlson scores, Forrest 1 or 2 lesions, inpatient bleed, and rebleeding were factors associated with mortality in bleeding PUD. Higher rates of inpatient mortality may be explained by age and comorbidities. Eradication of H. pylori was associated with improved outcomes and should be considered in all cases of bleeding PUD.

**PTU-012 BIOPSY AVOIDANCE STRATEGY IN ADULT COELIAC DISEASE**

1Lauren Marks*, 2Michelle Lau, 1Matthew Kurien, 3Simon Cross, 4William Egner, 4Marios Hadjivassiliou, 5Michael Rees, 1Kamran Rostami, 2Ravindranar Sargur, 3Kirsty Swallow, 3Gaeme Wild, 3David Sanders. 1Academic Unit of Gastroenterology, Royal Hallamshire Hospital, Sheffield, UK; 2Department of Pathology, Royal Hallamshire Hospital, Sheffield, UK; 3Department of Immunology, Royal Hallamshire Hospital, Sheffield, UK; 4Department of Neurology, Royal Hallamshire Hospital, Sheffield, UK; 5Department of Gastroenterology, Milton Keynes University Hospital, Milton Keynes, UK

Introduction Paediatric ESPGHAN guidelines support a diagnosis of coeliac disease (CD) when immunoglobulin-A anti-tissue transglutaminase (IgA tTG) antibody titres are >10 times the upper limit of normal (ULN) and combined with supportive criteria. This study examines whether serological testing alone could be sufficient for diagnosis in adult patients, thus avoiding the need for duodenal biopsies.

Methods We performed a prospective analysis of CD patients diagnosed in a University hospital. Symptoms of CD, villous atrophy (VA) on biopsy, IgA-endomysial (IgA-EMA) antibodies, tTG and Human Leukocyte Antigen (HLA) genotype were used for analysis. We then compared the TTG antibody level against small bowel histology.

Results 443 CD patients (66.8% female, median age 41 years, range 15–84 years) were diagnosed between 2008 and 2016.
56.9% (n=252, 95% CI=52.12–61.53) had a tTG value of greater than 10 times the ULN. Of these symptomatic patients, 70.4% (n=179, 95% CI=64.86–76.08) had a tTG value 10 x ULN. The proportion reaching the 10 x tTG threshold was 55.4% (n=87, 95% CI=47.64–63.19) for diarrhoea, 60.0% (n=27, 95% CI=45.69–74.31) for weight loss, and 74.2% (n=141, 95% CI=67.99–80.43) for anaemia. Of the 151 patients who did not experience malabsorptive features, 49.0% met the 10 x ULN tTG level (n=74, 95% CI=41.03–56.98). The sensitivity of tTG antibodies and EMA antibodies for predicting VA was 93.2% (95% CI=90.89–95.57) and 90.7% respectively (95% CI=88.05–93.44). Combined tTG and EMA was 98.6% (95% CI=97.67–99.72). All patients had compatible HLA typing, thereby failing to add any further diagnostic value.

Conclusions 56.9% of patients would have been correctly diagnosed with CD and avoided a duodenal biopsy using an IgA tTG threshold of >10 times the ULN. Symptoms and HLA typing did not add any supportive information. This study provides evidence that a biopsy avoidance strategy may be implemented into adult gastroenterological practice.

**Abstract PTU-013 Table 1** Ability of serological markers to detect VA

<table>
<thead>
<tr>
<th>Sensitivity</th>
<th>Specificity</th>
<th>Positive Predictive Value</th>
<th>Negative Predictive Value</th>
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<tbody>
<tr>
<td>tTG 39.0% (CI) 97.0% (CI) 88.9% (CI 64%–70.8% CI 61%–100%)</td>
<td>29%–48%</td>
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<td>EMA 40.5% (CI) 96.9% (CI) 89.5% (CI 65%–71.6% CI 61%–100%)</td>
<td>26%–57%</td>
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<tr>
<td>IgA AGA 47.5% (CI) 95.5% (CI) 86.4% (CI 64%–75.3% CI 65%–100%)</td>
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<td>IgA+IgG AGA 33.3% (CI) 98.5% (CI) 93.3% (CI 66%–100%</td>
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Conclusions This study is the first to evaluate the combination of serological markers to detect VA in patients with established CD. Our findings oppose recent work that serology may be used as a surrogate marker of mucosal healing in known CD.

**Abstract PTU-014 Table 1** Ability of serological markers to detect VA

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</table>

Conclusions This study is the first to evaluate the combination of serological markers to detect VA in patients with established CD. Our findings oppose recent work that serology may be used as a surrogate marker of mucosal healing in known CD.

**PTU-014** EFFECTS OF HELICOBACTER PYLORI INFECTION ON IRON METABOLISM GENES IN PATIENTS WITH IRON DEFICIENCY ANAEMIA

1Hafid Omar Al-Haosi, 2Jonathan White, 2Donna Redkar, 1Manel Mangalika, 2Dragana Cvijan, 2Y Falcone, 1Natalie Worton, 1Alain Deacon, 2Melanie Lingaya, 2AFiggins, 2PKaye, 2K Ragunath, 2John Atherton, 2Karen Robinson, 1Matthew Brookes.

Introduction There is a strong association between Helicobacter pylori (HP) infection and iron deficiency anaemia (IDA). The balance between iron uptake, storage and reutilisation is maintained by the liver hormone hepcidin. Paediatric studies have shown that HP disrupts iron function by inducing hepcidin. However, the effects of HP on iron metabolism and tissue hepcidin levels in adults remain controversial. Previously, we have shown by immunohistochemistry that the iron transport protein, ferroportin, was localised to the cytoplasm in the duodenal tissues from the HP-IDA group compared with the IDA group (70% versus 40% respectively) whereas in the control group ferroportin immunoreactivity was mainly localised to the membrane borders.1 Hence, in this study, we aimed to investigate the tissue expression of hepcidin at the mRNA level and the effects of HP on iron metabolism in duodenal and gastric tissues from IDA patients and controls.

Methods Patients with HP-IDA, IDA and control groups (n=14/group) participated in this study, with ethics approval.
Abstracts

and informed consent. Duodenal and gastric biopsies were obtained and evaluated by RT-PCR to determine the mRNA expression of hepcidin and iron regulators, including the iron import protein transferrin (TFR-1), divalent metal transporter1 (DMT1), and iron storage protein ferritin.

Results In the duodenal and gastric tissues, DMT-1 and ferritin expression levels were significantly higher in the HP-IDA group compared with IDA and control groups (p<0.01 and p<0.001 respectively). In the duodenal tissues, ferritin expression levels were also significantly higher in the IDA group than the control group (p<0.001). In the gastric tissues from the IDA group, TFR-1 was significantly lower compared with the control group (p<0.01). There were no significant differences between the tissue groups with respect to hepcidin or TFR-1 expression levels in the duodenal tissues.

Conclusions Helicobacter pylori infection increases internalisation and storage of iron, and blocks iron transport by altering ferroportin expression independently of hepcidin in IDA patients. It is likely that inflammatory mediators associated with HP infection play a role in disrupting iron function which could represent therapeutic targets. Further studies are ongoing in our laboratories to investigate the mechanisms by which HP modulates iron metabolism proteins.

REFERENCE

PTU-015 MEDIUM-TERM OUTCOME OF ENDOSCOPIC SPHINCTEROTOMY IN BILIARY MANOMETRY CONFIRMED SPHINCTER OF ODDI DYSFUNCTION TYPE 2

Umesh Basavaraju*, Vicky FP Ritchie, John S Leeds. Aberdeen Royal Infirmary, Aberdeen, UK; Freeman Hospital, Newcastle, UK

Introduction There is little data in the literature regarding medium term outcome in patients with suspected sphincter of Oddi type 2 who have undergone manometry guided sphincterotomy. We have performed this procedure in our centre since 2013 and aimed to assess the medium term outcomes in our cohort.

Methods Patients who had undergone manometry guided sphincterotomy more than three years ago for symptoms relating to sphincter of Oddi dysfunction type 2 (defined by Rome III criteria) and who had been reviewed in the short term were assessed. Review was conducted by means of medical notes review or phone call to determine the patient’s perspective of improvement in pain and satisfaction with the treatment. Scores allocated were as follows: 1: Asymptomatic, 2: Experiencing some symptoms but significant improvement and satisfied with outcome, 3: Experiencing symptoms and dissatisfied with outcome, 4: No change in symptoms and dissatisfied with outcome.

Results 19/20 patients underwent sphincterotomy. One patient could not be followed up in the short term and was excluded from the analysis. Of the remaining patients, the mean age was 43 years and were predominantly female (n=17). 4/20 had acute pancreatitis post ERCP (3 mild, 1 moderate). There were no patients that scored a 4.

In the short-term, patients had been followed-up at a mean of 17 weeks with the majority of patients finding benefit post sphincterotomy. 70% of patients reported a score of either 1 or 2 at short-term follow-up. The mean duration of medium term follow-up was 45 months. Three patients are not due for medium-term follow up for 1–2 months and three patients could not be contacted. There were no patients that remained asymptomatic. However, the majority of patients followed up were still significantly improved and happy with their outcome with a score of 2 (66.7%). Six patients are still to receive follow-up within the next two months.

Conclusions Our results indicate that patients who have undergone manometry guided sphincterotomy for symptoms related to sphincter of Oddi dysfunction type 2 remain significantly improved in the medium-term.

<table>
<thead>
<tr>
<th>Abstract PTU-015 Table 1</th>
<th>Medium-term outcomes in relation to short term scores</th>
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</thead>
<tbody>
<tr>
<td>Medium-term score</td>
<td>Medium-term score</td>
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<tr>
<td>1 (n=9)</td>
<td>0</td>
</tr>
<tr>
<td>2 (n=5)</td>
<td>0</td>
</tr>
<tr>
<td>3 (n=4)</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>n=0</td>
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</table>

PTU-016 BOLUS INTRAVENOUS PROTON-PUMP INHIBITORS AS GOOD AS INFUSIONS POST ENDOSCOPIC TREATMENT OF HIGH RISK ULCERS

Daniel Wheatley*, Duncan Napier, Leela Terry, Sean Main, Trevor Brooklyn. Gastroenterology Department, Gloucestershire NHS Foundation Trust, UK; Pharmacy Department, Gloucestershire NHS Foundation Trust, UK

Introduction Meta-analysis evidence suggests that IV boluses of proton pump inhibitors (PPIs) are non-inferior to IV infusions post endoscopic treatment of high risk peptic ulcers in terms of re-bleed rates. Our trust guideline for PPI use post treatment of high risk ulcers was changed from IV infusion to IV bolus therapy. We have compared re-bleed rates for those treated with bolus therapy and those who were given infusions in line with the older guideline to see if real-world data from a UK DGH reflects the findings of the meta-analysis.

Methods All endoscopy reports (electronically captured at the time of endoscopy) for the six month periods prior to and after the change in guidelines were retrospectively reviewed. Once patients who had been treated for high risk ulcers were identified, the method of PPI administration they received, as well as their re-bleed rates were compared. A Chi-squared test was performed using SPSS.

Results
The re-bleed rate prior to the change in guidelines was 14% (9 of 64) and after the change fell to 10% (7 of 70) though the difference was not statistically significant (p-value 0.53).

Conclusions Our real-world data mirror the current evidence from the meta-analyses; we found no deleterious effects from switching to IV bolus PPI as adjuvant treatment in high risk peptic ulcer disease that has been treated endoscopically. We recommend switching to from PPI infusions to IV boluses which has cost and nurse time advantages while maintaining efficacy.

REFERENCE

Giant Gastric Ulcers

PTU-017 MALIGNANCY YIELD AND PREDICTORS FROM A 10-YEAR RETROSPECTIVE SINGLE CENTRE COHORT


10.1136/gutjnl-2018-BSGAbstracts.280

Introductions Gastric cancer is known to reside in some gastric ulcers but what predicts this association is still unclear. Historically it was thought that increasing size of gastric ulcers maybe a predictor for harbouring malignancy. Little is known about this risk in giant gastric ulcers (>3 cms). We looked at malignancy yield in giant gastric ulcers and determined if any demographic, clinical or endoscopic predictors for malignancy exist. Secondary outcomes included the 30 day and 12 month mortality.

Methods This was a retrospective study including patients with giant gastric ulcers dating from September 2005 to December 2015. Predictors for malignancy were determined using binary logistic regression, after demographic, clinical and endoscopic variables were tested using univariate analysis and checking for collinearity.

Results A cohort of 111 patients was included for the final analysis. 42 giant gastric ulcers were malignant, equating to a yield of 37.8% (95% CI 28.8–46.8). Binary logistic regression analysis revealed predictors for malignancy were ulcer location (odds ratio OR 4.417; 95% CI 1.10–17.76; p=0.036), younger age of patient (OR 0.202; 95% CI 0.06–0.71; p=0.013) and endoscopic ‘non-suspicion’ (OR 0.138; 95% CI 0.049–0.39; p=0.001). Patient’s 12 month mortality for giant gastric ulcer was 61.9% (26/42) for malignant giant ulcers and 21.9% (11/73) for benign histology.

Conclusion Giant gastric ulcers have a high malignancy yield and associated with significant 12 month mortality. Predictors for malignancy include ulcer location, patient’s age and endoscopist’s ‘non-suspicion’ during endoscopy.

Abstract PTU-017 Table 1

<table>
<thead>
<tr>
<th>Method of PPI administration</th>
<th>No. of patients with re-bleed</th>
<th>No. of patients who did not re-bleed</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infusion</td>
<td>9</td>
<td>55</td>
<td>64</td>
</tr>
<tr>
<td>Bolus</td>
<td>7</td>
<td>63</td>
<td>70</td>
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</table>

Abstract PTU-018 A PATIENT WITH 16 MULTIPLE SPORADIC GISTS- AN EXTRAORDINARY DIAGNOSIS WITHIN A DISTRICT GENERAL HOSPITAL

Jay Patel, Fathima Dambha, Rashmi Haria, Paul Richman, Anthony Leahy. West Hertfordshire NHS Trust, Watford, UK

10.1136/gutjnl-2018-BSGAbstracts.281

Introduction Gastrointestinal Stromal Tumours (GISTs) are usually regarded to be sporadic and solitary by nature. The estimated worldwide incidence of GISTs is 1:1 00 000.¹ Multiple GISTs are an extremely rare phenomena, restricted to paediatric setting or attributed to type 1 neurofibromatosis (NF1), familial GIST syndrome, Carney’s Triad or sporadic by nature.

We present a 29 year-old female, unrelated to any known hereditary syndrome, who was found to have 16 sporadic multiple gastric GISTS.

Case report The patient, with no current co-morbidities, presented with a 5 day history of epigastric pain and melaena. An OGD was performed, showing a large GIST and an adherent clot. The surrounding antrum looked deformed, suggestive of further GIST tissue; multiple biopsies from the larger GIST heralded only reflux/reactive gastritis.

Following this, a staging CT found an exophytic, 42 mm gastric mass, with multiple submucosal heterogeneous lesions along the entire length of stomach, with no enlarged lymph nodes or metastases. An endoscopic ultrasound (EUS) demonstrated at least 6 submucosal lesions with typical features suggestive of GISTs. Fine needle aspiration with EUS confirmed epitheliod gastrointestinal tumours.

Following an upper-gastrointestinal (GI) multidisciplinary meeting, the patient underwent a laparoscopic subtotal gastrectomy with Roux-en-Y gastrojejunostomy. Histopathology highlighted 16 GISTs, with range percentage of progressive disease between 0%–16%; immunohistochemistry confirmed GISTs with DOG-1, CD117 and CD34 positivity.

The patient underwent a PET CT and referred to oncology services for consideration for Imatinib.
The presence of multiple sporadic GISTs is extremely rare, with only one case-report in the literature. The patient had a reported normal paediatric development. She had no physical signs of NF-1 and there were no family history of GISTs. It is certainly unclear if her multiple lesions were the result of metastatic spreading of a single primary GIST. Certainly further research is required to explore this phenomenon.

Despite a ‘tunnelled’ approach to biopsing the GIST, an OGD was not an effective way of achieving histological diagnosis, and highlighted the continuing importance of EUS and fine needle biopsy in the diagnostic investigations of upper GI lesions.

Surgery remains the cornerstone to treatment, despite the availability of targeted chemotherapy. Understandably, a subtotal gastrectomy for this young patient may have psychological and nutritional long-term sequelae.

REFERENCE

OUTCOMES FROM MESENTERIC ANGIOGRAPHY AND EMBOLISATION IN NON-VARICEAL UPPER GI BLEEDING: A SINGLE CENTRE EXPERIENCE
Aaron McGowan, Alexander Robertson, Ian Penman. NHS Lothian, Edinburgh, UK
10.1136/gutjnl-2018-BSGAbstracts.282

Introduction Upper GI bleeding remains an important cause of morbidity and mortality. Mortality rates in non-variceal upper GI bleeding have remained relatively static over recent decades despite an ever-increasing range of therapeutic options.

Interventional radiology (IR) has become an increasingly available tool for management of upper GI bleeding when endoscopic haemostasis has failed. However, literature is lacking surrounding the technical success and long term outcomes of mesenteric embolisation in patients with non-variceal upper GI haemorrhage.

We therefore wished to assess the overall technical efficacy and outcomes of interventional radiology in patients presenting with upper GI haemorrhage who had undergone initial endoscopy at the Royal Infirmary of Edinburgh.

Methods We retrospectively analysed the interventional radiology database for all patients who had undergone embolisation procedures. We then focussed on patients who had presented with non-variceal haemorrhage and assessed their outcomes using computer-based records. Patients were followed up for a minimum of 1 year.

Results Data were available from 2007 onward. We assessed patient’s mortality outcomes at 30 days and 1 year. In total, 24 patients had undergone mesenteric embolisation for non-variceal upper GI haemorrhage (15 female, 9 males). Median age was 72 (range 52–96).

Over half of patients (14 of 24, 58.3%) had an ASA grade of III or IV. (Figure 1)

19 of 24 had information available to calculate Glasgow-Blatchford score, with a median score of 15. (Figure 2)

Mean length of hospital stay in survivors was 31.75 days (5–148).

23 lesions were located in the duodenum, 1 in the oesophagus. There were 2 Dieulafoy lesions, 1 tumour vessel, 1 unclear bleeding point and 20 ulcers with varying stigmata.

5 patients had already undergone surgical management of their bleeding lesion prior to IR.

IR was technically successful in 22 of 24 patients. 4 out of 24 patients rebled following embolisation.
No patients developed an acute kidney injury following angiography. 6 out of 24 (25%) of patients died within 30 days of their IR procedure. (Figure 3)

8 out of 24 (33%) died within 1 year. 3 of these were due to bleeding, 3 due to sepsis and 2 due to malignacies. (Figure 4)

Abstract PTU019 Figure 1- ASA Grade

Abstract PTU019 Figure 2- Glasgow-Blatchford Score

Abstract PTU019 Figure 3- Mortality at 30 days

Abstract PTU019 Figure 4- Mortality at 1 year

Conclusions Mesenteric embolisation in patients with significant non-variceal upper GI bleeding has high technical success rates with low rebleeding rates, in a patient population that often is elderly with significant comorbidity.

Approximately one third of patients who undergo interventional radiology procedures for non-variceal upper GI haemorrhage will be dead at 1 year; the majority from non-bleeding related causes.

PTU-020 INTRODUCTION OF SEMS FOR MALIGNANT DISTAL BILIARY STRICTURES AT A LARGE LONDON DISTRICT GENERAL HOSPITAL

Emma Dean, Farhna Sayed, Lesley Bain, Sudeep Tanwar. Whipps Cross Hospital, London, UK

10.1136/gutjnl-2018-BSGAbstracts.283

Introduction Biliary stents are commonly used to treat malignant biliary obstruction. Compared to plastic stents, self-expanding metal stents (SEMS) have a wider diameter and therefore offer enhanced biliary decompression and a longer duration of patency. In addition, biliary decompression with SEMS insertion at ERCP commands a significantly higher level of reimbursement than if a plastic stent is employed. For these reasons, at our hospital since 2015, plastic stents have been abandoned in favour of uncovered or covered SEMS (60 mm ×10 mm) in patients with unresectable disease or potentially resectable disease respectively. Herein, we report the first 2 years of this change in endoscopic practice at a large DGH in East London.

Methods Patients diagnosed with either pancreatic or biliary tract cancer between April 2015 and April 2017 and who underwent endoscopic biliary stenting were prospectively audited. Retrospective Data collection was performed from electronic systems including Somerset, CRS, EPR and unisoft GI reporting from this prospective cohort.

Results Of 86 patients diagnosed with pancreatic or bile duct cancer, 45 patients (52%) underwent biliary stenting (37 distal biliary stricture, 9 with a perihilar stricture). Of the 37 with a distal stricture, CBD cannulation rate was 92%, the remainder required a rendezvous procedure to access the CBD. A SEMS was deployed across the stricture in all cases. A fully covered and uncovered SEMS was deployed in 27 and 12 patient respectively. A>50% reduction in bilirubin was identified in 94% of cases with this effect similar in both covered and uncovered SEMS. Following SEMS insertion 77% of patients achieved a bilirubin <50 umol/L. In total, 24 patients required repeat ERCP due to tumour progression with an average of 2.2 interventions per patient. During re-intervention, a new SEMS was deployed within the previous SEMS. 30 mortality post ERCP was 9%. Mortality at 6 months was 19%. Distal stent migration was not identified in any patient. Four patients (3 covered and 1 uncovered) suffered cholecystitis due to gall-bladder contrast retention after occlusion of the cystic duct orifice. Whereas this was treated with stent removal in patients with covered SEMS, cholecystostomy drainage was required in the patient with uncovered SEMS.

Conclusions In our unit the introduction of SEMS for the management of distal biliary strictures has resulted in excellent rates of biliary decompression with stent occlusion due to tumour progression managed by SEMS insertion within SEMS. Whereas distal stent migration was not identified in our series, 10% of patients suffered the gallbladder complications highlighting the need try to avoid SEMS deployment over the cystic duct orifice.

PTU-021 SCREENING FOR COELIAC DISEASE IN ANAEMIA WITH SEROLOGY AND DUODENAL BIOPSIES: SINGLE CENTRED RETROSPECTIVE ANALYSIS

Arun Sivananthan*, Aruchuna Mohanaruban, Maryam Bin Desmal, Simon Peake. West Middlesex University Hospital, London, UK; MPerial College NHS Healthcare, London, UK; Royal College of Surgeons, UK

10.1136/gutjnl-2018-BSGAbstracts.284

Introduction Coeliac disease is an important cause of iron deficiency anaemia with a prevalence of around 1% and BSG guidance suggests that in suspected individuals a minimum of 4 duodenal biopsies should be taken at endoscopy coupled with coeliac serology testing (tissue transglutaminase – TTG). The aim of this retrospective study was to determine current practices in coeliac testing for patient undergoing upper GI endoscopy for anaemia at a London NHS Trust.

Methods This was a retrospective study of all upper gastrointestinal endoscopies performed for anaemia over a 3 month period between September and December 2016. The results of TTG serology endoscopy reports and histological findings were analysed and statistical analysis was performed using Microsoft excel.

Results A total of 311 patients underwent upper gastrointestinal endoscopy for anaemia. 2 patients (0.64%) had biopsy proven coeliac disease (subtotal villous atrophy on histology). Both these patients had a positive TTG recorded. 38 patients (12.2%) had a TTG recorded prior to endoscopy; 6 patients (1.89%) had a positive TTG. 32 patients had a negative TTG. TTG had a sensitivity of 100%, a specificity of 89%, a positive predictive value of 33% and a negative predictive value of 100%.
210 patients (67.5%) had duodenal biopsies performed. Of these 178 (84.76%) had 4 or more duodenal biopsies. Of 21 patients who had a negative TTG before endoscopy 12 (57.14%) had biopsies. None of these patients were found to have coeliac disease.

Conclusions This study demonstrates that the majority of patients receive 4 or more duodenal biopsies at endoscopy as recommended in the guidelines. In addition we have evidence that TTG serology appears a useful negative predictive test which is rarely available prior to endoscopy. Prior testing will help guide the endoscopist and may help avoid costly and unnecessary duodenal biopsies when investigating anaemia. Therefore the uptake of coeliac antibody testing should be encouraged in patients being investigated for anaemia.

**Abstracts**

**Abstract PTU-021 Table 1**

<table>
<thead>
<tr>
<th>Coeliac</th>
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<tbody>
<tr>
<td>TTG +ve</td>
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</tr>
<tr>
<td>TTG -ve</td>
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</tr>
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**Sex hormone receptor expression in oesophageal adenocarcinoma and recurrence and survival: a retrospective cohort study**

**Introduction** The most striking epidemiological feature of Oesophageal adenocarcinoma (OAC) is its strong unexplained male predominance, suggesting a protective effect for oestrogens, but few studies have investigated expression of sex hormone receptors in OAC. In a retrospective cohort of OAC patients, we evaluated Oestrogen Receptor (ER) α and β and Androgen Receptor (AR) tumour expression and investigated associations with OAC recurrence and survival.

**Methods** We identified 148 OAC patients who underwent neo-adjuvant chemotherapy prior to surgical resection between 2004–2012 at the Northern Ireland Cancer Centre. Immunohistochemical expression of ERα, ERβ and AR was scored for two independent observers, blinded to the clinical data. Cox proportional hazards regression was used to calculate hazard ratios (HR) and 95% confidence intervals (CI) for associations between sex hormone receptor expression and overall survival, cancer-specific survival and recurrence-free survival. All analyses were adjusted for clinic-pathological and lifestyle factors including age at diagnosis, sex, pathological nodal stage, primary site, lymphovascular invasion, circumferential margin involvement, PET response and smoking. Sub-group analysis was conducted by Siewert classification.

**Results** Weak positive expression was identified for ERα (6/139) and AR (4/138) while moderate positive expression was observed for ERβ (43/138). After a mean follow-up of 3 years (max 9 years), no significant associations were observed for ERα, ERβ or AR expression and OAC recurrence or survival. ERβ expression however was associated with significant improvements in overall survival (HR 0.38, 95% CI 0.16, 0.88), cancer-specific survival (HR 0.36, 95% CI 0.15, 0.84) and recurrence-free survival (HR 0.28, 95% CI 0.12, 0.69) in patients with adenocarcinoma of the distal oesophagus (Siewert type I).

**Conclusion** In the largest study to date, we found little evidence of ERα or AR expression in OAC. We observed moderate expression of ERβ and suggestive evidence that its