due to submucosal fibrosis as the lesion had previously been biopsied and tattooed under the lesion.

Conclusion Hybrid-biopsy EMR is a simple method, requiring a widely available and inexpensive device used in every-day practice. The procedure can be performed safely by endoscopists inexperienced in ESD. Using a rotatable biopsy forceps will make this even easier to perform.

P62 PROBE-BASED CONFOCAL LASER ENDOMICROSCOPY AS A NOVEL TECHNIQUE FOR DIAGNOSIS OF SIGNET RING CELL CARCINOMA

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Introduction Hereditary diffuse gastric cancer (HDGC) syndrome, which is related to germline CDH1 mutation, confers a 70% lifetime risk of gastric cancer. Endoscopic surveillance is an alternative to prophylactic gastrectomy in patients that want to delay surgery. Endoscopic diagnosis of early signet ring cell carcinoma (SRCC) is challenging on either standard or enhanced imaging, due to the inconspicuous nature of SRCC foci. Probe-based confocal laser endomicroscopy (pCLE) has not previously been evaluated for diagnosis of SRCC. In this study, we aimed to develop endomicroscopic diagnostic pCLE criteria for early SRCC in individuals with HDGC syndrome.

Methods This pilot prospective phase study was conducted in patients with HDGC undergoing endoscopic surveillance at a single tertiary referral centre. First, white light endoscopy and narrow band imaging (NBI) were used to inspect the gastric mucosa in order to pinpoint pale areas. After fluorescein

Abstract P62 Figure 1 pCLE features characteristic of SRCC: A - glands with attenuated margins (arrows); B - glands with irregular or spiculated shape (arrows); C - heterogeneous granular stroma with sparse glands (blue arrows show heterogeneous granular stroma and red arrows indicate sparse glands); D - enlarged vessels with tortuous shape and turbulent flow (arrows)

injection pale area lesions as well as negative control areas were assessed by pCLE, using coagulation marking to ensure correspondence between pCLE and biopsy location. Finally, pCLE videos were analysed off-line by an expert gastrointestinal pathologist and an endoscopist experienced in pCLE diagnosis, in an unblinded fashion in order to identify characteristic features of SRCC.

Results Overall, 16 patients received pCLE on a total of 50 endoscopic locations, of which 4 areas with confirmed SRCC on biopsies. A total of 113 video sequences were screened, of which 8 derived from areas with confirmed SRCC on biopsies. These were assessed together with 12 negative control areas, using histological slides as morphological reference. We identified 4 pCLE diagnostic criteria for SRCC. These were: glands with attenuated margins, glands with irregular or spiculated shape, heterogeneous granular stroma with sparse glands, enlarged vessels with tortuous shape and turbulent flow (figure 1).

Conclusions We have identified four pCLE features characteristic of SRCC. These novel diagnostic criteria are being validated prospectively in the ongoing second phase of the clinical study.

P63 UREA TREND IS SUPERIOR TO ABSOLUTE UREA CONCENTRATIONS AT PREDICTING ACUTE UPPER GASTROINTESTINAL BLEEDING

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Introduction Serum urea concentration is a well-established marker of acute upper gastrointestinal bleeding (AUGIB) and is used to risk-stratify patients requiring emergency endoscopy. However, the utility of absolute urea concentrations is limited due to its non-discriminative ability to differentiate AUGIB from acute and chronic kidney disease, which often co-exist. We aimed to evaluate the diagnostic value of the urea trends in the assessment of severe AUGIB compared to absolute urea concentrations.

Methods A retrospective analysis of patients who underwent emergency gastroscopies in theatres for suspected acute upper gastrointestinal bleeding from September 2018 and May 2019 was conducted at a district general hospital. Baseline demographics, clinical characteristics, blood test results and endoscopy reports were extracted from medical records. Baseline urea concentrations were obtained from historical records where available. Active bleeding was defined as the need for therapeutic endoscopic intervention. Statistical analyses were performed using SPSS software and were considered statistically significant if the p value was <0.05.

Results 158 consecutive cases of AUGIB were identified; the median age was 72 years and 102 (65%) were male. Melaena was the most common presentation (n=87, 55%), followed by coffee-ground emesis (n=37, 23%), frank haematemesis (n=22, 14%), haematochezia (n=16, 10%) and anaemia without overt bleeding (n=16, 10%). 35 (22%) required emergency endoscopic intervention. The median haemoglobin and serum urea levels at presentation were 91 g/L (IQR 72–119) and 10.7 mmol/L (IQR 6.1–18.1), respectively. 22 (14%) had acute kidney injury, of whom 8 required endoscopic intervention; while 46 (29%) had chronic kidney disease.

Abstract P63 Figure 1 ROC curves for urea trend versus absolute urea concentrations

Serum urea level >6.5 mmol/L and change in urea concentration >1.3 fold from baseline predicted the need for endotherapy with a sensitivity/specificity of 85%/32% and 85%/46%, respectively; the latter predicted severe AUGIB ($X^2=10.2$, $p=0.001$). The corresponding area under the receiver operating curve (AUROC) were 0.59 (95% CI 0.49–0.69) and 0.71 (95% CI 0.61–0.81) (figure 1). In a subgroup analysis of patients with chronic kidney disease ($n=46$), AUROC for urea trend was 0.65 compared to that of absolute urea levels (0.53). There were no significant associations between urea concentrations, acute and chronic kidney disease with rebleeding rates at 72 hours, inpatient mortality and readmissions for AUGIB.

Conclusions We demonstrate that an increase in urea concentration of >1.3 fold from baseline is superior at predicting severe AUGIB requiring endoscopic intervention and is a useful discriminator in patients with chronic kidney disease.

P64 THE IMPACT OF ENDOSCOPIC SUBMUCOSAL DISSECTION ON THE COMPLEX POLYP SERVICE

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Background Endoscopic excision of complex polyps is a rapidly evolving treatment, and particularly endoscopic submucosal dissection (ESD) might represent an option for superficial malignant invasion. Limited data is available in western series for clear indications for ESD.

Methods We prospectively collected data between February 2017 and December 2018 of excision of complex polyps. We compared short term outcomes data between piecemeal and en-bloc excision, with both Endoscopic Mucosal Resection (EMR) and ESD, and outcomes in endoscopically resected polyps that were incidentally found to be malignant.

Results 189 patients (80 females, mean age 69.9, sd 11.8) underwent 207 polypectomies. Of these, in 124 we employed a piecemeal technique, and en-bloc resection in 83 (41 EMR

and 42 ESD, 13 of which were performed in 2017 and 29 in 2018). There was no difference in the rates of complications between the en-bloc and the piecemeal groups. We experienced no perforation or need for transfusion in either group. In 8 patients (6.5%) of the piecemeal group there was polyp recurrence, whilst no recurrence was seen in the en-bloc group.

Histology showed cancer in 14 specimens within the en-bloc group. Out of these, 10 patients underwent surgical resection, and residual cancer was found only in one case. In the other 4 patients endoscopic surveillance showed no recurrence. Histology confirmed cancer in 6 patients within the piecemeal group. Of these, 3 underwent surgical resection and 3 to endoscopic surveillance with one recurrence.

Conclusions In our cohort, en-bloc resections appeared to be as safe as piecemeal polyp resections, but with lower recurrence rates. In our practice rates of ESD increased two-fold over the 2-year period, and it might represent a treatment option for superficial submucosal malignant invasion. Future studies are warranted to address the role of ESD for polyp cancers.

P65 THE OVESCO OTSC FOR ACUTE UPPER GASTROINTESTINAL BLEEDING – A LARGE PROPENSITY SCORE-MATCHED UK SERIES

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Introduction There have been no significant improvements in the outcomes of upper gastrointestinal (GI) bleeding over the last few years. The aim of this study was to determine whether the use of the OVESCO™ over the scope clip (OTSC) was associated with a lower rebleed-rate and mortality compared to conventional endoscopic therapy.

Methods Consecutive episodes of upper GI haemorrhage treated with the OTSC were identified from a prospective database in a UK tertiary centre over a 3-year period. Treatment with OTSC was delivered for patients with high-risk features or failed conventional endoscopic therapy.

Over the same time period, all patients with upper GI haemorrhage treated with conventional endoscopic therapy were retrospectively identified, and a propensity score-matched cohort was assembled. Patient demographics, 7-day re-bleed rate, 30-day re-bleed rate and 30-day mortality rates were compared. T-test and Pearson's Chi-square statistic were used to statistically describe the results.

Results 617 episodes of upper GI haemorrhage were identified requiring endoscopic intervention over three years. 71 high-risk lesions were treated in the OTSC group, vs 89 high-risk lesions in the matched control group (conventional endoscopic therapy).

The sites of lesions treated with the OTSC included oesophagus (10%), stomach (22%) and duodenum (68%). The lesions were described as Forrest 1a-18%, 1b-33%, 2a-32%, 2b-17%. Pathology included ulcers (78.9%), Mallory-Weiss tears (9.6%) Dieulafoy (7.0%) post-angiographic coil ulcer (1.4%) post- EMR (1.4%) anastomotic bleed (1.4%).

Compared to the control group, the OTSC group had lower 7-day re-bleeding rate (19.3% vs 2.8%, $p < 0.01$) and a lower 30-day re-bleeding rate (25.0% vs 7.0%, $p < 0.01$). There was a trend toward reduction in all-cause mortality in the OTSC group (14.8% vs 8.5%, $p=0.20$) but a significantly