OC-011 IS COFFEE GROUND VOMITING IMPORTANT? FINDINGS FROM A LARGE BLEEDING UNIT DATABASE WITH OUTCOMES AT 30 DAYS

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Introduction Upper gastrointestinal bleeding (UGIB) is a common reason for admission and "coffee ground vomiting" (CGV) has classically been considered a sign but clinical experience hasn't always borne this out. There is a paucity of data concerning endoscopic findings and outcomes in patients presenting with CGV. The aim of this study was to analyse endoscopic yield and outcomes at 30 days in patients presenting with CGV alone compared to those with haematemesis or melaena.

Methods The Aberdeen bleeding unit opened in 1991 and has recorded demographics, presenting symptoms, endoscopic diagnosis and outcomes on all admissions. Endoscopic diagnostic groups were varices, gastric ulcers (GU) or duodenal ulcers (DU), cancer, trivial (e.g. Mallory-Weiss tear (MWT)), no source found, no bleed and colonic. Analysis was performed over the period 1991 to 2005 and three groups identified; CGV alone (group A), haematemesis (group B) and melaena (group C). Endoscopic diagnosis, rebleeding and mortality rate were calculated and using group A as reference, odds ratios calculated (shown in brackets).

Results 6105 patients were admitted over the study period with suspected UGIB (A, n = 1708 (923 males), B, n = 1663 (968 males) and C, n = 2734 (1640 males)). Trivial, no source found and no bleed diagnoses were found in 1390 (75%) group A, 1291 (50%) group B and 1130 (40%) group C. Group B was younger than groups A and C (mean age 50.4 vs. 64.6 and 64.8 respectively, $p < 0.001$) therefore groups were stratified into <50 or ≥ 50 . In < 50 , group B had significantly more varices (OR 2.3) and MWT (OR 2.8) whereas group C had significantly more GU (OR 2.6), DU (OR 9.9) and colonic bleeds (OR 6.9). Only 4 cases had upper GI cancer all presented with melaena. 30 day mortality (<50) for groups A, B and C was 2.7%, 1.6% and 1.9% but rebleeding was significantly higher in group C (OR 3.5). In ≥ 50 , group B had significantly more varices (OR 6.9), GU (OR 1.8), gastric cancer (OR 2.4), oesophageal cancer (OR 3.2) and MWT (OR 3.1) whereas group C had significantly more varices (OR 2.9), GU (OR 2.5), DU (OR 3.7), gastric cancer (OR 2.0), and colonic bleeds (OR 6.1). 30 day mortality (≥ 50) for groups A, B and C was 11.8%, 12.5% and 11.1% but rebleeding was significantly higher in groups B and C (OR 5.3 and OR 5.0 respectively).

Conclusion Presenting with CGV is associated with the same mortality as haematemesis or malaena but has significantly lower endoscopic yield and rebleeding suggesting a non-gastrointestinal cause. CGV should not be synonymous with UGIB and needs to be considered for investigations other than endoscopy.

Disclosure of Interest None Declared.

OC-012 ENDOBARRIER: A BRIDGE TO SURGERY IN MORBIDLY OBESE PATIENTS?

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Introduction Bariatric surgery is the best available intervention for weight reduction in morbidly obese patients. Although

outcomes are not quite comparable to surgery, an endoscopically implanted device called the Endobarrier (Endoscopic duodenojejunal bypass liner) can lead to significant weight loss and improvement of glycaemic control when compared to either dietary caloric restriction or sham procedures. Surgery may be complicated in high-risk groups like patients with poorly controlled diabetes, multiple co-morbidities or a body mass index (BMI) >50 kg/m². We aimed to analyse the effect of an Endobarrier as an effective risk reducing tool in such high-risk patients prior to surgery.

Methods All patients who underwent an Endobarrier insertion between January and October, 2013 were analysed. This included patients with poorly controlled diabetes, patients with a BMI >50 kg/m² or those who were at a high risk of peri-operative complications based on obesity surgery mortality risk score (OSMRS: normal score 1–5). Patient outcomes which included length of stay, complications, weight loss, and impact on glycaemic control were prospectively observed.

Results The Endobarrier was inserted in 18 patients (13 M) with median age of 53 years (range 32–68), median weight 159 kg (range 102–237), median BMI 54 kg/m² (range 37–70.4) and a median OSMRS of 4 (mortality risk=2.4%). Device insertion was successful in all patients with no early removals required to date. The median length of stay was 1 day (range 1–5). There were no major complications apart from a single case of upper GI bleed 3 months later, which settled conservatively. Median weight over 3–6 months was now reduced to 147 kg (range 77–192) with median weight loss of 16.2 kg (6.9–41 kg) and 20.4 kg (9–47 kg) at 3 and 6 months respectively. Post-procedure, diabetic medication were either decreased (n = 9/11) or no longer required (n = 2/11) in diabetic patients and at 3 months HbA1C levels improved significantly from a median of 8.7 to 6.7% (p = 0.01).

Conclusion Endobarrier may be used as a stepping stone to surgery in high risk patients by safely and effectively reducing weight and improving glycaemic control.

Disclosure of Interest None Declared.

OC-013 KNIFE ASSISTED RESECTION (KAR) OF LARGE AND REFRACTORY COLONIC POLYPS AT A WESTERN CENTRE: FEASIBILITY, SAFETY AND EFFICACY STUDY TO GUIDE FUTURE PRACTICE

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Introduction ESD enables large lesions to be resected en bloc. This reduces recurrence, but ESD is technically challenging with high complication rates and hence not widely practiced in the west.

We have used a novel Knife Assisted Resection (KAR) technique.

We aim to evaluate the outcome of KAR in the treatment of large and refractory colonic polyps and identify polyp features that can predict complications and recurrence after KAR.

Methods Cohort study of patients referred to our centre for resection of refractory polyps. All patients who had KAR of colonic polyps >20 mm in size from 2006 to Feb 2013 were included. All procedures were performed by a single experienced endoscopist.

The technique starts with submucosal (SM) injection followed by mucosal incision using a dual knife (Olympus KD-650L).

Abstract OC-013 Table 1

	Size		Resection type		Site		Scarred	
	≤50 mm	>50 mm	En bloc	P meal	LC	RC	yes	no
All polyp recurrence 14/106 (13%)	6/78 (7.6%)	8/28 (28.5%)	1/42 (2.3%)	7/44 (15.9%)	13/83 (15.6%)	1/23 (4.3%)	6/20 (30%)	8/86 (9.3%)
	P = 0.009		P = 0.001		P = 0.15		P = 0.024	
Unscarred polyp recurrence 8/86 (9.3%)	2/62 (3.2%)	6/24 (25%)	1/42 (2.3%)	7/44 (15.9%)	8/68 (11.7%)	0/18 (0%)		
	P = 0.005		P = 0.058		P = 0.195			

This is followed by variable degrees of SM dissection and completion of circumferential mucosal incision. Finally a snare assisted resection is performed either en bloc or piecemeal, depending on the polyp size and extent of SM dissection.

Results 127 polyps in 127 patients of mean age 71 years. Mean polyp size 46 mm (20–170 mm). 27% were >50 mm. 27% were scarred from past attempted resection. 26% were in the right colon.

En bloc resection: 58/127(46%). Size <50 mm was a significant ($p = 0.001$) predictor of en bloc resection (88 vs. 12%).

The complication rate was 11/127(8.6%) with 5(3.9%) bleeds, 4(3.1%) diathermy damage to muscle fibres and 1 (0.78%) perforation. Complications were not linked to polyp size, scarring or resection site. A single patient with perforation required surgery. All other complications were managed endoscopically.

The recurrence rate was 14/106(13%). This was significantly higher for polyps >50mm ($p = 0.009$) and in scarred polyps ($p = 0.024$).

On sub-analysis of unscarred polyps, polyps ≤50 mm with no scarring had a very low recurrence rate of 3.2% as compared to 25% in polyps >50 mm ($p = 0.005$).

Factors associated with recurrence

Conclusion This is the largest reported western series demonstrating the feasibility, safety and efficacy of KAR for large and refractory polyps, with or without scarring, at all colonic sites. Our data demonstrates that complications of KAR are not related to size but the recurrence rate is. Size >50 mm and scarring seem to be predictors of recurrence.

We propose flat polyps 20–50 mm in size as the ideal indication for KAR in the western setting.

Disclosure of Interest None Declared.

OC-014 PATIENTS WITH INTRAMUCOSAL CARCINOMA ARISING IN BARRETT'S EOSOPHAGUS HAVE SIMILAR OUTCOMES TO THOSE WITH HIGH GRADE DYSPLASIA: DATA FROM THE UNITED KINGDOM REGISTRY

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Introduction Mucosal neoplasia arising in Barrett's oesophagus (BE) can be treated with combined radiofrequency ablation (RFA) and endoscopic mucosal resection (EMR). Once there is submucosal invasion the risk of lymph node metastases increases and surgery is favoured. High grade dysplasia (HGD) and intra-mucosal carcinoma (IMC) arising from the mucosal layer in BE are defined as separate entities in the revised Vienna classification (category 4.1 and 4.4 respectively).

Methods We examine prospective data from United Kingdom (UK) registry of patients undergoing RFA/EMR for BE neoplasia

over past 5 years to compare outcomes between HGD and IMC patient cohorts. Histological confirmation of HGD or IMC was required on two separate occasions by specialist histopathologists prior to treatment. Before RFA, visible lesions were removed by EMR. Thereafter patients underwent RFA 3 monthly following which biopsies were taken at 12 months for clearance of dysplasia (CR-D) and BE (CR-IM). Twelve month outcomes, frequency of EMR, cancer progression and long term durability in both groups were examined.

Results To date 367 patients with HGD and 125 with IMC have been treated. There is no difference in age, sex, baseline BE length between the 2 groups. EMR prior to RFA is far more prevalent in IMC cohort than HGD patients (78 vs. 45%, $P < 0.0001$). Patients had an average of 2–3 RFA treatments over 12 months (range 1–6) in both cohorts. Rescue EMR after starting RFA for new lesions was similar in both groups (HGD 7%, IMC 6.5%). CR-D and CR-IM in the HGD cohort was 85 and 69% respectively at 12 months. This was not significantly different in the IMC cohort (86 and 71%, $p = 0.7$). Overall progression to invasive cancer was not significantly different in either cohort (HGD 4.1%, IMC 7.2%). Kaplan Meir survival statistics did not show any difference in long term durability of successful neoplasia treatment in both groups ($p = 0.9$, log rank test), median follow up 20 months.

Conclusion We report one of the largest series of patients undergoing endoscopic therapy for IMC arising in BE. Patients with IMC are more likely to have visible lesions that require EMR prior to RFA than those with HGD. However, once all visible lesions are removed, there is no statistical difference in clinical outcomes between the cohorts. Minimally invasive endoscopic therapy with RFA/EMR is a safe and effective treatment in patients with IMC. All collaborators of the UK RFA registry are acknowledged for their contributions to this work

Disclosure of Interest None Declared.

Joint oesophageal and gastroduodenal free papers

OC-015 HIGH GRADE DYSPLASIA ARISING IN BARRETT'S OESOPHAGUS CAN BE ACCURATELY DIAGNOSED COMBINING FOURIER TRANSFORM INFRARED SPECTROSCOPY AND SINGLE ELEMENT ATTENUATED TOTAL REFLECTANCE FTIR DATA

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Introduction Fourier transform infrared spectroscopy (FTIR) detects specific molecules in human tissue from unique vibrational absorption spectra in the mid Infra-Red region (1800–