proximal oesophagus. Its importance as a cause of throat symptoms has been recognised, particularly chronic globus.

Studies report variable figures regarding the prevalence of heterotopic gastric mucosa in the proximal oesophagus, between 0.03% and 5.9%. It is likely that this variability is due to the quality of endoscopy, with one study demonstrating the detection rate rises 10-fold when endoscopists were aware of the condition.

Here, we aimed to evaluate the true prevalence of cervical inlet patch in patients with and without globus following implementation of a structured endoscopy reporting template to enhance detection rate of CIP.

Methods A prospective study of presence of inlet patch documented during endoscopic BRAVO capsule procedures performed between 2009 and 2020 was undertaken. Five operators carried out the procedures with expertise in optical image enhancement endoscopy and upper-GI lesion recognition. Endoscopy reports were interrogated including picture photo-documentation to confirm presence of inlet patch. Additionally, patient symptoms and BRAVO capsule pH data were analysed to detect association with globus and reflux. Assessment of normality of data was assessed using the Shapiro Wilks test and subsequently non-parametric analyses were performed using the Mann Whitney U test.

Results A total of 1042 patients undergoing Bravo were studied. The use of a structured endoscopy reporting template for BRAVO capsule was used and as such all patients were classified as having the presence or absence of an inlet patch.

All had conscious sedation; median dose of fentanyl 100 mcg (75–150 mcg) and midazolam 4 mg (3–7 mg).

CIPs were detected in 76/1042 (7.1%). Association of CIP and abnormal BRAVO reading was non-significant for number of reflux events or total acid exposure time but was significantly associated with symptoms such as chest pain ($p<0.05$).

In those with no globus symptoms (n=294), CIP was detected in 13 (4.4%), but in those with globus (n=748), this increased to 63 (8.4%), $p=0.03$.

Conclusions In this large cohort study the prevalence of cervical inlet patch was found to be 7%, and in those with oropharyngeal symptoms, over 8%. Improved detection rate may be related to numerous factors, including endoscopists level of experience at detecting pathology, sedation use and patient comfort, as well as a reporting template focusing the endoscopist to comment on presence/absence of inlet patch. Presence of CIP may be considered as a quality metric of upper-GI endoscopy in the future.

P231 AN EVALUATION OF THE ENDOSCOPIC, PATHOLOGIC AND RADIOLOGIC FEATURES OF 225 PATIENTS WITH EOSINOPHILIC OESOPHAGITIS

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Introduction Eosinophilic Oesophagitis (EoE) is a chronic allergic disorder of the oesophagus, associated with an inflammatory infiltrate of eosinophils into the oesophagus, and associated with submucosal fibrosis and dysphagia. A high index of suspicion is needed at endoscopy and targeted biopsies from areas of mucosal abnormality in addition to standard multiple level sampling strategies achieves highest diagnostic yield.

Methods A retrospective study of patients with a pathological diagnosis of eosinophilic oesophagitis between 2015 – 2017 was undertaken following a data extraction of results using the Electronic Patient Record (EPR) system.

Baseline characteristics were interrogated, in addition to endoscopic findings, associated radiological abnormalities, management strategies and patient outcomes.

Data was extracted and analysed using Rstudio.

Results A total of 225 patients with a new diagnosis of EoE were made during the time period studied. Median age distribution was 25–30 years, with the oldest patient diagnosed at 75-years of age. The main indication for endoscopy was dysphagia (47%), followed by odynophagia (27%). Food bolus obstruction was present in 25 individuals (11%). The most common endoscopic finding was stricture (40%). A normal oesophagus was described in 18% of individuals with trachealisation seen in 15% of cases. A schatzki ring was present in 10% of cases with endoscopic evidence of oesophagitis described in 45%.

Eosinophil counts ranged from 15–72 eos/hpf with furrows and exudates associated with higher mean eosinophil counts/hpf (55 and 52 respectively) than other endoscopic features, and mucosal oedema associated with lower counts (mean 32 eos/hpf).

Number of biopsies taken ranged from 1–20. Taking more biopsies was associated with a higher chance of spongiosis as well as fibrosis being commented on during histopathological analysis ($p<0.001$ and $p=0.013$ respectively).

Conclusions Eosinophilic Oesophagitis is becoming an increasingly more commonly diagnosed condition and is associated with significant patient morbidity. Heightened awareness of endoscopic features of disease as well as enhanced biopsy protocols maximise the chances of successful diagnosis.

P232 EXCESSIVE BELCHING IN GERD: SUPRAGASTRIC BELCHING OR SMALL INTESTINAL BACTERIAL OVERGROWTH?

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Introduction Excessive belching is commonly reported in patients with gastroesophageal reflux disease (GERD). The main determinant of troublesome belching in reflux patients is thought to be supragastric belching (SGB). We looked at the prevalence of SGB and small intestinal bacterial overgrowth (SIBO) in GERD patients with excessive belching.

Methods Using retrospective data, we identified 41 adult patients referred to a speciality reflux centre with excessive belching, and who carried out a 24-hour esophageal pH-impedance test and lactulose breath test (LBT). Pathological SGB was defined as >13 per 24 hours and SIBO was determined by a rise in hydrogen ≥20 ppm from baseline within 90 minutes, respectively. These data were analysed statistically using McNemar's test, Fisher's exact test and independent t-tests.

Results All patients reported excessive belching and at least one other typical symptom of GERD (85% reported heartburn and 63% reported regurgitation). SIBO was more prevalent

(46.3%; 95% CI, 30.7–62.6%) than SGB (17.1%; 95% CI, 7.2–32.1%; $P = 0.012$). SGB was not associated with a positive reflux-symptom association for heartburn or regurgitation ($P > 0.05$), but the presence of SIBO was associated with a positive reflux-symptom association for regurgitation ($P = 0.004$). Patients with a positive reflux-symptom association for regurgitation had significantly more hydrogen production on LBT than those without (mean AUC 275.8 ppm vs 139.1 ppm; $P = 0.028$).

Conclusions A larger proportion of reflux patients with excessive belching have SIBO compared to SGB. Therefore, SIBO may be the primary cause of belching in GERD. In addition, SIBO was associated with a positive reflux-symptom association for regurgitation and hydrogen production on LBT was significantly greater in these patients. It may be that excessive bacterial fermentation in the proximal gut contributes to reflux symptoms, but further studies are required to look at the relationship between SIBO and GERD.

P234 COMPARING THE ENDOROTOR® RESECTION DEVICE WITH CONTINUED ABLATION IN TREATMENT OF REFRACTORY BARRETT'S OESOPHAGUS

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Introduction Endoscopic ablation therapy is recommended in patients with flat dysplastic Barrett's oesophagus (BE). A proportion will be refractory to treatment. This is associated with neoplasia recurrence. The EndoRotor® device (Interscope Medical Inc, Whitinsville, MA, USA) is a non-thermal resection device. The aim was to compare the safety and efficacy of EndoRotor with ablation in the treatment of refractory BE.

Methods This is an on-going prospective, randomised trial in two centres in the UK and USA. Patients with refractory BE were randomised to EndoRotor resection or continued ablation (Cryotherapy/Radiofrequency ablation). All patients had Intramucosal adenocarcinoma/High grade or Low-grade dysplasia at initial baseline histology. Patients were followed up every 3 months with a maximum of 3 treatments. Primary outcome was BE length reduction. Secondary outcomes included pain post procedure (pain scores), stricture rates and complications. Refractory disease was defined as the presence of BE after at least 3 sequential sessions of first line ablative endotherapy or less than 50% reduction in BE after two sessions.

Results A total of 11 patients were recruited thusfar. 5 randomised to EndoRotor and 6 to ablation.

In the EndoRotor arm the mean initial BE length was C 1.4 (SD 2.1) and M 3.5 (SD 1.9). Patients had a median number of 5 (IQR, 3–6) previous ablations. Patients had a mean of 2 EndoRotor procedures. The mean BE length post initial treatments is C 1 and M 1.9 thusfar. There were 14 procedures performed. Patients had mild (score =1- 4) discomfort post 3/14 procedures. There was no perforations/strictures during follow-up. There was one adverse event where intraprocedural bleeding was treated successfully with bipolar probes.

In the ablation arm the mean baseline initial BE length was C 0.7 (SD =1.2) and M 3.6 (SD 1.9). They had a median number of 4 (IQR, 3–5) previous ablations. They had a mean of 2 follow-up ablations. The mean current BE length post treatment is C 0.2 and M 3.2. There were 13 procedures performed. There was one report of mild discomfort post procedure.

Abstract P234 Table 1 Outcomes in the EndoRotor and ablation arm

	EndoRotor arm (N = 5)	Ablation arm (N =6)
Median no. of previous ablations	5(IQR, 3–6)	4(IQR, 3–5)
Median no. of procedures	2	2
Median follow up time (months)	6(IQR, 3–6)	5(IQR, 3–6)
Median procedure treatment time (Mins)	32(IQR, 16–60)	6(IQR, 5–9)
Mean reduction in BE length (C)(mm)	4	5
Mean reduction in BE length (M) (mm)	16	4

Conclusion EndoRotor is safe to use in the treatment of refractory BE with no associated strictures and low pain scores. In this cohort of refractory patient's EndoRotor has slightly better outcomes in terms of BE length reduction. This data will be validated with more patients recruited and completed treatment sessions with histology and final BE lengths.

P235 DEVELOPMENT AND VALIDATION OF THE DIRECT OBSERVATION OF BARRETT'S IMAGING/ENDOTHERAPY SKILLS (DOBES) ASSESSMENT TOOLS

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Introduction Endoscopic resection (ER) and radiofrequency ablation (RFA) have become the standard of care worldwide for treatment of early Barrett's neoplasia. Procedural outcomes are highly dependent on the operator skill and training. Validated tools for assessment of competency in these 2 procedures are currently lacking. We aimed to develop and validate ER and RFA tools for use in clinical practice.

Methods A working group of 15 experts who met one or more of the predefined inclusion criteria was set up. Using published evidence-based criteria, the group devised a structured checklist of graded competency descriptors (scores ranged from 1=required maximal supervision to 4=competent). The latter were grouped into four main competency domains, namely: pre-procedural; specific skills; post-procedural; and endoscopic non-technical skills (ENTS). Consensus agreement and piloting was undertaken to ensure content validity.

Construct validity was measured by independent assessment of 60 videos per procedure of ER and RFA by 7 assessors (selected from the working group) in a random manner. Procedures were performed by 15 operators with variable expertise including experts and trainees. Statistical analysis was performed using Generalizability theory, which analysed 'variability components' between: operators; cases; assessors; assessors across (x) operators; and unexplained variation.