Conclusion We summarise that using a pre-operative protocol where patients undergo oesophageal physiology tests allows for good patient selection and ensures excellent outcomes with significant improvement in symptoms post-operatively. In the absence of a major motility abnormality, those patients with weak motility, low MDA, or reduced IBC, do not experience significantly worse symptoms post-operatively. Those with reflux symptom correlation but where increased exposure was not noted on 24 hour monitoring may still benefit from the LINX

PTH-121 REFERRAL PATHWAY AND AGE INFLUENCE THE LIKELIHOOD OF BIOPSY TO EXCLUDE EOSINOPHILIC OESOPHAGITIS IN DYSPHAGIA

¹Andreas Hadjinicolaou*, ¹Sabina Beg, ²Gloria Tun, ³Louise Warburton, ³Stefano Sansone, ²Stuart Riley, ³Krish Ragnunath, ¹Ines Modolell. ¹Cambridge University Hospitals NHS Trust, Cambridge, UK; ²Sheffield Teaching Hospitals NHS Trust, Sheffield, UK; ³Nottingham University Hospitals NHS Trust, Nottingham, UK

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Introduction Dysphagia is a common cause for 2 week wait (2 WW) referral for endoscopy, where the primary goal is to exclude malignancy. Non-malignant pathology such as Eosinophilic Oesophagitis (EO) can present with similar symptoms. As EO may have little in the way of endoscopic features, it is recommended that biopsies be taken to exclude this condition where no endoscopic cause is found. It is unknown whether this strategy is appropriate in the rapid access population.

Methods We performed a database review of all OGDs performed to investigate dysphagia, during the 12 month period of 1 st July 2016 – 30th June 2017, within three large teaching hospitals serving a population of 3.2 million. Demographic information, endoscopic diagnosis and histology results were evaluated. Biopsy practice and outcomes were compared according to referral pathway and patient age.

Results During this period of time 3052 patients underwent an OGD for dysphagia, of which 2387 (64%) were investigated on the 2 WW pathway and 665 (17.9%) as routine referrals. In cases where no cause for dysphagia was identified on endoscopy, biopsy to exclude EO was more likely in patients under routine referral compared to those on the 2 WW pathway (table 1). EO was over three times more commonly diagnosed in the routine referral cohort. Patient age also influenced the likelihood of taking biopsies, with a negative correlation between biopsy acquisition and patient age (table 2). Overall, there were 68 histologically confirmed diagnoses of EO with mean age of 42 years and M:F ratio of 2:1.

Conclusions Our data suggest that despite no significant differences in demographics, those referred via the 2 WW were less likely to be investigated for EO than those referred routinely. Patient age appears to influence the investigation of EO, despite proven cases in older patients. These disparities in practice may result in under diagnosis of EO in older patients or patients referred through the 2WW pathway.

Abstract PTH-121 Table 1 Patient characteristics and outcomes as per referral route

Comparison	2 WW referral (n=2387)	Routine referral (n=665)
Mean age (range)	65.3 (23–101) years	57.9 (21–93) years
M:F ratio	0.83	0.89
Malignancy (% of total)	136 (5.7%)	12 (1.8%)
Benign cause of dysphagia (% of total)	564 (23.6%)	211 (31.7%)
No endoscopic cause of dysphagia (% of total)	1681 (70.4%)	443 (66.6%)
Cases biopsied to exclude EOE (% of cases without endoscopic cause of dysphagia)	573 (34.1%)	221 (49.9%)
EOE cases (% of total)	35 (1.5%)	33 (5.0%)

Abstract PTH-121 Table 2 Biopsy acquisition as per patient age

Age group (yrs)	Cases biopsied/normal endoscopies	EO cases/total endoscopies
17–35	98/155 (63.2%)	26/198 (13.1%)
36–55	275/608 (45.2%)	37/853 (4.3%)
56–75	396/1105 (35.8%)	14/1698 (0.8%)
76–101	154/600 (25.7%)	6/963 (0.6%)

PTH-122 ENDOSCOPIC MANAGEMENT OF EARLY NEOPLASIA IN BARRETT'S OESOPHAGUS – AN OUTCOME ANALYSIS FROM NORTH-EAST ENGLAND

¹Aaron Wetten*, ²Suzi Batchelor, ²David Nylander, ¹Sree Mussoonoor, ¹Anjan Dhar. ¹County Durham and Darlington NHS Foundation Trust, Darlington, UK; ²Newcastle Hospitals NHS Foundation Trust, Newcastle, UK

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Background Barrett's Oesophagus (BO) is a pre-malignant condition associated with progression to dysplasia and oesophageal adenocarcinoma (OAC) and surveillance strategies are aimed at detecting early neoplasia (low and high grade dysplasia), which can be treated by endoscopic resection(ER) and radiofrequency ablation(RFA). The British Society of Gastroenterology Guidelines for management of Barrett's Oesophagus (Gut 2014) and NICE pathway (2014) recommend that all units carrying out these procedures should audit their performance to national standards. The North-east of England is an area of high prevalence and poor outcomes related to OAC.

Aim of this study This study was aimed at analysing the combined outcomes of the treatment of Barrett's related early neoplasia in the two centres that provided this treatment in 2015–2016. The population covered by these two centres is approximately 3.0 million, with two regional tertiary MDTs.

Methods A retrospective review of endoscopy, MDT and case notes for all patients with Barrett's related early neoplasia (defined as either low grade (LGD) or high grade (HGD) dysplasia) between January 2015– December 2016 was undertaken. All histology was reviewed by two specialist GI Pathologists, and endoscopic resection and RFA treatment

carried out by two endoscopists (AD, DN). A limited number of endoscopic resections in the early phases were carried out by surgical endoscopists. RFA was done using the HALO 360 or 360 express balloons for circumferential ablation or the HALO 90 or TTS devices for focal ablation. 12 month outcomes for complete response for intestinal metaplasia (CE-IM) were analysed.

Results A total of 49 patients with Barrett's oesophagus related dysplasia were treated, median age 68 years (range 43–85), M:F=3.5:1. 56% patients were current smokers and 15% ex-smokers. 4% patients had a family history of OAC. 52% patients were not obese. 71% pts had a Barrett's segment <8 cm long. 24 pts (52%) had high grade dysplasia, 17 of which were in a Barrett's segment of <8 cm length. Of 22 patients with LGD, only 7 pts had a Barrett's segment of >8 cm. 3/12 pts with LGD were treated by EMR followed by RFA, while 9 pts received RFA alone (the remaining LGD pts were either downgraded or kept on surveillance). In the HGD group, after MDT discussion, 4 pts opted for oesophagectomy, 7 had EMR and RFA and 7 had RFA alone. Post EMR histology confirmed dysplasia in 83%, and intramucosal adenocarcinoma in 5%. CE-IM was achieved in 15 pts (78%) at the end of 1 year, with 2 pts (9%) showing LGD and 1 (4%) showing HGD and 1 indefinite for dysplasia.

Conclusions In this real world analysis of Endotherapy for Barrett's oesophagus in an area of high prevalence of OAC, we have shown that EMR rates are 50% for HGD and 25% for LGD and CE-IM rates of 78% achieved at 12 months. This is comparable to national outcomes, although the EMR rates for LGD are considerably lower.

PTH-123 CHRONIC COUGH AND GORD: THE TIP OF THE ICEBERG?

¹Michael Mcfarlane*, ²Samantha Leach, ¹Chuka Nwokolo, ²Anthony Hobson, ¹Ben Disney. ¹Uhcw, Coventry, UK; ²The Functional Gut Clinic, London, UK

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Introduction Chronic cough affects 9%–33% of European and US populations.¹ Gastro-oesophageal reflux disease (GORD) has emerged as an important cause,² with high resolution manometry (HRM) and 24 hour pH monitoring a vital diagnostic tool.

Methods We retrospectively audited referrals from respiratory physicians for chronic cough from February 2015–November 2016. 105 patients were referred, with 85 undergoing HRM/pH studies which were performed using Sandhill Scientific equipment.

Results HRM/pH studies showed a mean upper oesophageal sphincter pressure of 34.7 mmHg, with 47% having a hypotensive UOS. Mean lower oesophageal sphincter pressure was 19.1 mmHG, with 33% having a hypotensive LOS. Mean percentage upright oesophageal acid exposure was 5.3%, with 24% having excessive exposure (>6.3%). Mean supine oesophageal acid exposure was 4.4%, with 32% having excessive exposure (>1.2%). The mean DeMeester score was 17.6, with 28% having a positive score (>14.7). See table 1 for full physiology results.

14.3% patients were referred for anti-reflux surgery (ARS) after HRM. 60% had hypotensive UOS, 67% hypotensive LOS, 47% upright acid exposure >6.3%, 60% supine acid exposure >1.2%, 67% DeMeester score >14.7% and 60% positive symptom association.

There were no statistically significant differences between those undergoing ARS and those not for sex, age, BMI or

UOS pressures. However LOS pressure,% upright/supine acid exposure and DeMeester score were significantly different ($p=0.03, <0.01, <0.01$ respectively).

Conclusions GORD is a potentially important cause of chronic cough, affecting 24%–32% of patients by supine/upright acid exposure or DeMeester score. 47% have a hypotensive UOS, suggesting the cough may represent pharyngeal dysfunction and/or non-acid reflux. ~15% underwent ARS, a higher conversion rate than the colorectal 2-week-wait pathway (5%–10%), despite mixed evidence of the effectiveness of ARS for extra-oesophageal manifestations of GORD.^{3 4}

Abstract PTH-123 Table 1

HRM/pH study parameter (normal range/cut off)	Mean (SD)	% positive
UOS pressure (30–118)	34.7 mmHg (28.4)	47% hypotensive UOS
LOS pressure (10–45)	19.1 mmHg (15.9)	33% hypotensive LOS
% upright acid exposure (<6.3%)	5.3% (5.7)	24%
% supine acid exposure (<1.2%)	4.4% (7.6)	32%
DeMeester score (<14.7)	17.6 (20.4)	28%
Symptom association	-	41.2%

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PTH-124 ENDOSCOPIC RESECTION OF EARLY OESOPHAGEAL ADENOCARCINOMA WITH SUBMUCOSAL INVASION: OUTCOMES FROM A SINGLE CENTRE

Thomas Skouras*, Andrew Moore, Howard Smart. Royal Liverpool University Hospital, Liverpool, UK

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Introduction Endoscopic mucosal resection (EMR) for early oesophageal adenocarcinoma (EOA) is an established and accepted therapy with the outcome for cancers invading the submucosal layer (T1b) dependent upon histological risk factors of the malignancy. The aim of this study was to assess the outcomes in patients with T1b EOA in our institution.

Methods We retrospectively assessed all patients who underwent an upper GI EMR from January 2009 to December 2017 using the audit tool of UNISOFT Medical Systems – GI reporting tool (version14). We collected data regarding the histological characteristics from our ICE laboratory reporting system. Patients who were identified as having a T1b EOA were reviewed for their subsequent management and outcome using electronic hospital records and the Somerset Cancer Registry.

Results A total of 333 patients underwent 391 upper GI EMR procedures. Of these, 170 were oesophageal EMR of which 18 had EOA with submucosal invasion. All 18 were male with a mean age of 68.6 years. The EMR was en-block in 4 cases and piecemeal in the remainder. The median number of resections per procedure was 3 (IQR 1–4). The median follow up was 37 (IQR 23–56)