modification. Statistical analysis of variables was calculated using Fisher's exact test, Wilcoxon ranksum, and logistic regression analysis.

Results In the capture period, 36 patients had standard treatment, and 48 patients underwent modified technique. In the latter group, a significantly longer mean Barrett's segment was treated (6.1 cm vs 8.2 cm; $p=0.01$). We identified a stricture rate of 22.2% (8/36) in the standard treatment group, and 4.2% (2/48) in the modified group ($p=0.014$).

Stricture rate was significantly higher ($p=0.026$) with increasing Prague circumferential and maximum Barrett's length ($p=0.023$). There was no statistical difference in stricture rate when prior EMR or degree of dysplasia was considered.

A logistic regression model showed 85% reduced odds of stricture using the modified treatment ($p=0.036$) after adjusting for age, procedure type, grade of dysplasia, prior EMR, and Prague measurements.

Abstract OTU-20 Table 1

	No stricture	Stricture	Significance
Standard Procedure	28	8	$p=0.014$
Treat-Cool-Treat	46	2	
Prague Max Circ: (cm)Mean (SD)	4.06 (4.02)	7.7 (5.03)	$p=0.026$
Prague Max length: (cm)Mean (SD)	6.59 (3.62)	10.1 (4.84)	$p=0.023$
Prior EMR	36	2	$p=NS$
No EMR	38	8	
LGD	16	4	$p=NS$
$\geq$ HGD	58	6	

Conclusions Our audit demonstrates an improved outcome with the novel treat-cool-treat technique, with significantly lower rate of stricture development with this modified practice. This has an important bearing on patient care, as dilatation carries its own risk of complication. These findings suggest a benefit to the use of this novel adaptation of standard HALO 360 RFA treatment in Barrett's neoplasia.

Posters

PTU-042 IMPROVED DIAGNOSTIC YIELD OF SYMPTOM ASSOCIATION ANALYSIS

Humayra Abdul-razakq*, Ufuk Vardar, Amanda Raeburn, Rami Sweis. *UCLH GI Physiology, London, UK*

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Introduction The Lyon Consensus 2018 recommends at least 3 symptoms for reliable symptom association analysis; however it is not clear if symptoms should be combined or analysed individually. This study aims to determine the impact of calculating symptom index (SI) as a measure of symptom association in combination or separately.

Methods SI measurements were collected for 139 consecutive patients who presented with reflux symptoms and received ambulatory pH monitoring at a tertiary referral centre in London. Typical symptoms were defined as heartburn (HB) and

regurgitation; atypical symptoms included chest pain, belch, laryngopharyngeal reflux and others (e.g. cough). A positive SI (SI+) was considered when $\geq 50\%$ of symptom events were preceded by a reflux episode within a 2 minute window. Results are presented as median (IQR; interquartile ratio). Comparisons were made using the Wilcoxon Signed Rank t-test.

Results All but one patient reported at least 3 combined symptoms. The remaining 138 patients (mean age 49 yrs; 35 males) reported a median of 30 (14, 68) symptoms overall. With all presenting symptoms combined, 13 (9.4%) patients exhibited SI+, median 73% (61%, 77%). The remaining 125 patients were SI-, median 13% (0%, 25%). When calculating symptoms individually, 25 further patients were identified with SI+ ($n=38$; 27.5%), thus increasing the diagnostic yield for SI+ by 3-fold; median 69% (50.5%, 99%) ($p<0.001$). HB in particular exhibited an additional yield of 14 patients ($p=0.04$).

When typical symptoms were combined (HB + regurgitation), 12 further SI+ patients were identified ($n=25$; 18.1%), median 68% (50%, 81%) ($p<0.001$), thus exhibiting a 2-fold increase in the diagnostic yield. Combining atypical symptoms only resulted in 3 additional patients with SI+ ($n=16$; 11.6%) ($p=0.067$); of which belch was the predominant symptom ($n=11$; 68.8%).

Compared to analysing all symptom together, a change in diagnosis (from SI+ to SI- or vice versa) was seen in 26 (18.8%), when symptoms were analysed separately; particularly for HB ($n=12$; 8.7%), combined typical symptoms ($n=28$; 20.3%) and combined atypical symptoms ($n=20$; 14.5%).

Increasing the threshold for inclusion from ≥ 3 to ≥ 6 symptoms resulted in the elimination of 10 patients and led to a greater likelihood for detecting SI+ for HB ($n=23$; 18.0%), typical symptoms ($n=23$; 18.0%) and atypical symptoms ($n=15$, 11.7%) compared to combining all symptoms together.

Conclusions Diagnostic yield of symptom-association analysis increases (up to 3-fold) when symptoms are analysed individually than when all symptoms are combined, likely because it focuses on the most relevant symptoms that the patient complains of.

PTU-043 ASSOCIATION BETWEEN OCCUPATION TYPE AND PROGRESSION OF BARRETT'S OESOPHAGUS TO OESOPHAGEAL ADENOCARCINOMA

Santanu Bhattacharjee*, Christine Caygill, Anthony Watson. *UK Barrett's Oesophagus Registry, London, UK*

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Introduction To investigate association between the type of occupation and progression of Barrett's oesophagus (BO) to high grade dysplasia (HGD) and oesophageal adenocarcinoma (OAC).

Methods 2971 patients diagnosed with BO and enrolled with the United Kingdom Barrett's oesophagus Registry (UKBOR) formed the cohort for the study. Medical records were examined and patients' occupation were recorded. Patients without an occupation were excluded as were housewives and those unemployed. Histology from endoscopic surveillance of BO patients was sought with HGD or OAC used as the end point.