PTH-66 CORRELATION OF PEES AND EREFS SCORES WITH HISTOLOGICAL ACTIVITY IN CHILDREN WITH EOSINOPHILIC OESOPHAGITIS (EOE)

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Introduction Management of children with EoE is hampered by lack of reliable biomarkers. Although the Paediatric Eosinophilic Esophagitis Symptom Score (PEESS v2.0) has been validated as a marker for clinical activity in children and the Endoscopic Reference Score (EREFs) in adults, their use for clinical application has not been evaluated in children in the UK.

Aims of this pilot study were:

- Correlation of clinical activity (PEESS) with endoscopic grading (EREFs) and standard oesophageal histology
- (i) Feasibility in clinical practice.

Methods Retrospective review of a single consultant's cohort of children with EoE (n=13) over 18 months (2019-20) providing n=19 assessments.

PEESSv2.0 comprises 20 questions about symptom frequency and severity in domains dysphagia, reflux, nausea/vomiting, and pain generating scores from 0-4. EREFs depicts endoscopic EoE features (oedema, rings, furrowing, exudate, stricture) into a grading score of severity. Pearson's correlation test was used to indicate significance ($p < 0.05$).

Results 84.6% of children were male with a mean age of 13.7 years (8.7-17.4yr).

In 47.3% (9/19) histologically active EoE [≥ 15 eosinophils per high power field (eos/hpf)] was found. Mean peak eos/hpf were 4.7 (0-35) in proximal, 14.9 (0-100) in mid and 20.8 (0-80) in distal oesophagus.

Mean PEESS score was 20 (mild) and IQR 0-31.5 (range 0-68), indicating mild to moderate activity. There was positive correlation of PEESS scores with the density of eosinophils in the mid ($p=0.004$) and distal ($p=0.0009$) oesophagus, but not in proximal ($p=0.23$).

Mean EREFs score was 1.4 (range 0-3), with furrowing and micro abscess being the most common findings. The correlation of EREFs with PEESS was not significant ($p=0.43$).

Treatment at time of assessment consisted in 63% (12/19) of children of oral viscous budesonide, 21% (4/19) of PPI, 11% (2/19) of elimination diet (ED), and 5% (1/19) of combination therapy.

Conclusion In our pilot study, routine use of PEESS in clinical settings was practical, feasible, and helped to evaluate more objectively efficacy of treatment.

Similar to a study in the US, we confirmed a correlation of histologic and clinical activity (PEESS) of EoE in children in the UK. Endoscopic EREFs scores may be helpful to assess longitudinally disease activity and mucosal alternations in patients with EoE.

If applied consistently, these scores can be easily applied to monitor disease activity, provide guidance on timing and frequency of endoscopic reassessment, indicate need for treatment escalation, and may help to recognise earlier beginning signs of complications.

PTH-67 LOW RATE OF POST-FUNDOPPLICATION DYSPHAGIA IN PATIENTS WITH PRE-OPERATIVE OESOPHAGEAL APERISTALSIS

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Introduction Limited data exist on the safety of fundoplication surgery in patients with oesophageal aperistalsis, with some considering it a contraindication due to risk of dysphagia. We aimed to assess rates & predictors of dysphagia in such patients who underwent fundoplication.

Methods Patients with oesophageal aperistalsis based on the Chicago classification v3.0 who underwent fundoplication for confirmed symptomatic reflux were identified at a single centre. Pre-operative high-resolution manometries (HRM) were reviewed, with standard parameters as well as presence of contractile reserve (peristalsis with distal contractile integral (DCI) > 100) following multiple water swallows (MWS), solids, or saliva recorded. Patients were excluded if they had an alternate manometric diagnosis, incomplete HRM, or anti-reflux surgery pre-HRM. The hospital odynophagia & dysphagia questionnaire (HODQ) was performed post-operatively. HODQ > 6 was considered abnormal.

Results 17 patients (7 male, median [IQR] age at surgery 53y [38.5-66.5]) with a median time to post-operative scoring of 34 (18-52) months were included; 13 (76%) had a normal post-operative HODQ. Complete fundoplication was performed in 12 patients, of which 2 (17%) had an abnormal HODQ. There was no significant difference in demographics, type of surgery, or pre-operative HRM parameters between

Abstract PTRH-67 Table 1 Clinical & HRM characteristics

	Normal post op HODQ, n=13	Abnormal post op HODQ, n=4	p
Male, n (%)	4 (30.8)	3 (75)	0.25
Age (years) at operation, median (IQR)	59 (38.5-69)	47 (32.8-62.8)	0.36
Pre-op 24hr acid exposure time (mins), median (IQR)	150 (122-178.2)	112.5 (52.3-173.1)	0.57
Pre-op dysphagia, n (%)	2 (15.4)	2 (50)	0.22
Complete fundoplication, n (%)	10 (76.9)	2 (50)	0.54
Hernia, n (%)	6 (46.2)	2 (50)	1.0
Integrated relaxation pressure, median (IQR)	2.6 (1.2-4.7)	0.75 (-0.6-5.6)	0.57
MWS contractile reserve, n (%)	1 (7.7)	1 (25)	0.57
Solid swallow contractile reserve, n (%)	8 (61.5)	3 (75)	0.81
Random saliva swallow contractile reserve, n (%)	7 (53.8)	1 (25)	0.58
Solids, DCI max, median (IQR)	491.1 (0-1185.7)	668.3 (161.2-1052.8)	0.71
Saliva, DCI max, median (IQR)	272.7 (0-415.5)	0 (0-358.4)	0.62
Total swallows with DCI > 100 , median (IQR)	3 (0-7)	5 (1-6)	0.82