

PWE-58 ARE NOVEL AND ESTABLISHED ANORECTAL PHYSIOLOGY DIAGNOSTICS ASSOCIATED WITH SYMPTOMS AND QUALITY-OF-LIFE IN FAECAL INCONTINENCE?

Caroline Byrne*, Dipesh Vasant, Edward Kiff, Peter Whorwell, Abhiram Sharma, Karen Telford. *Manchester University NHS Foundation Trust, Manchester, UK*

10.1136/gutjnl-2021-BSG.320

Introduction High-resolution anorectal manometry (HRAM) is an established assessment modality. Novel techniques, such as the Functional lumen imaging probe (EndoFLIP) and Anal Acoustic Reflectometry (AAR) are currently predominantly considered research tools. However, there is recognised, and well-documented, discordance between HRAM parameters, symptom severity and quality-of-life scores (QoL) in patients with faecal incontinence (FI). The aim of this study was to examine metrics from each of these three modalities and investigate whether they correlated with patients' symptoms and QoL.

Methods Females with FI undergoing HRAM at a tertiary pelvic floor centre were recruited and completed a series of symptom questionnaires including Vaizey FI score (VFI), Constipation Scoring System (CSS), and the Manchester Health QoL (MHQ). Following HRAM, patients had AAR and FLIP subsequently in a randomised order. Resting and squeeze parameters were recorded (Opening/Squeeze opening pressure (Op/SqOp) for AAR, distensibility index (DI) for EndoFLIP and resting/incremental squeeze pressure for HRAM). Correlations between symptom scores and QoL measures were compared with anorectal physiology metrics using Spearman's correlation.

Results Twenty females [median age 61.5 years (IQR 51.5-66yrs)] with FI (mixed 45%, passive 35%, urge 20%) were recruited. There was no difference in median VFI ($p=0.293$), CSS ($p=0.473$) or MHQ ($p=0.490$) scores between FI subtype. Those with a low resting and incremental squeeze pressures (HRAM) had a higher Vaizey score and reported a poorer QoL (coefficient -0.46 , $p=0.046$ and -0.58 , $p=0.09$ respectively). The higher the DI during squeeze and lower the squeeze opening pressure, the higher the Vaizey score (coefficient 0.51 , $p=0.028$ and -0.49 and $p=0.034$ respectively) (Table 1).

Conclusions This novel study comparing metrics from three anorectal physiology modalities has demonstrated that each

technique had at least one parameter (resting or squeeze) that correlated with either symptom severity and QoL in patients with FI, supporting the need for further research on the utility of EndoFLIP and AAR.

PWE-59 PATIENT ACCEPTANCE OF ANORECTAL PHYSIOLOGY DIAGNOSTICS: HOW IMPORTANT IS THE CATHETER?

Caroline Byrne*, Dipesh Vasant, Edward Kiff, Peter Whorwell, Abhiram Sharma, Karen Telford. *Manchester University NHS Foundation Trust, Manchester, UK*

10.1136/gutjnl-2021-BSG.321

Introduction The diameter of high-resolution anorectal manometry (HRAM) catheters vary from 2.6mm up to 10.75mm for some high-definition devices. Other catheter-based physiology assessment tools such as the Functional lumen imaging probe (FLIP) use of a probe with a starting diameter of 3mm. Anal acoustic reflectometry (AAR) however is a 'catheter-less' technique as it does not distort the anal canal due to the extremely thin (diameter 0.71mm) flexible probe occupying a small cross-sectional area (0.4mm^2). Therefore the primary aim of this study was to explore which system patients found more acceptable.

Methods Females with faecal incontinence (FI) symptoms attending for HRAM at a tertiary pelvic floor centre were recruited. Following HRAM, patients underwent AAR or FLIP in a randomised order. Resting and squeeze parameters were recorded for each modality and at the end of all 3 tests, patients completed a visual analogue scale independent of the researcher [(scale 0-10) 0= no pain/acceptable test, 10 = severe discomfort/an unacceptable test].

Results Twenty females [median age 61.5 years (IQR 51.5-66yrs)] with varying sub-types of FI (*mixed 45%, passive 35%, urge 20%*) were recruited. Physiology parameters and VAS scores are presented in table 1. All of the respective median resting/squeeze parameters, [except for incremental squeeze pressure (HRAM)], for each modality were below laboratory normative values. Eleven patients (55%) reported equal acceptability for all 3 tests, scoring either 0/10 or 1/10 for each. Median scores for all three modalities were low (0.5/10 – 1/10).

Conclusions This study has shown for the first time that the majority of patients found that all 3 modalities were of equal acceptability with minimal discomfort. It is acknowledged that

Abstract PWE-58 Table 1 Physiology parameters and correlations with symptom severity and QoL questionnaires (Spearman's correlation, r_s)

	Median resting result (IQR)	VFI r_s (p-value)	CSS	MHQ	Median squeeze result (IQR)	VFI r_s (p-value)	CSS	MHQ
HRAM (Resting/ Incremental Squeeze pressure, cmH ₂ O)	40.04 (25.6– 6.5)	-0.46 (0.046)	0.26 (0.288)	-0.26 (0.281)	81.4 (54.4–147)	-0.32 (0.177)	0.96 (0.697)	-0.58 (0.009)
FLIP (DI, mm ² /mmHg)	1.6 (0.8-1.7)	0.35 (0.146)	-0.20 (0.404)	0.15 (0.555)	0.7 (0.5-1.6)	0.51 (0.028)	-0.22 (0.358)	0.33 (0.174)
AAR (Op/SqOp, cmH ₂ O)	41.4 (25.1 – 63.1)	-0.40 (0.093)	0.18 (0.456)	-0.10 (0.673)	79.8 (46.1–124.9)	-0.49 (0.034)	0.414 (0.078)	-0.23 (0.344)