gastroenterologist, underwent investigations and received a GI diagnosis. ROME III criteria were used to categorise FGID. A control group of patients, aged 18–70, who were referred to secondary care for non-GI related problems, were similarly assessed. The prevalence of JHS in various GI diagnoses and in controls, adjusted for age and gender,was compared. Non-GI characteristics and QOL was compared in JHS and non-JHS patients.

Results 688 GI patients [254 organic: (55% F, 43y); 341 FGID: (65% F, 40y); 53 reflux: (40% F, 46y)] and 93 non-GI controls (67% F, 43y) were included. JHS prevalence was higher in FGID (38%) and reflux (40%) compared to organic disorders (26%) and controls (26%) ($p = 0.003$). JHS was significantly associated with FGID (ORadj: 1.7, CI:1.02–2.88), specifically postprandial distress syndrome (ORadj 2.2, CI: 1.2–2.2), and with reflux disorders (ORadj 2.2, CI: 1.1–4.7), but not with organic disorders (ORadj: 1.0, CI:0.6–1.8). FGID patients with JHS had significantly more FM (12.6 vs. 4.9%, $p = 0.02$), chronic pain (23.2 vs. 11.7%, $p = 0.01$), somatisation scores (13 vs. 10, $p < 0.01$), anxiety scores (0.5 vs. 0.36, $p = 0.02$) and urinary autonomic symptoms (30.5% vs 19.6%, $p = 0.047$), and worse pain related QOL scores (45 vs. 63.5, $p < 0.01$).

Conclusion JHS is associated with functional dyspepsia, and non-erosive reflux disease, and with FM, chronic pain, somatisation and anxiety. Clinical assessment for JHS in GI clinics is indicated in those with a combination of functional upper GI symptoms and extra-intestinal symptoms as this may help earlier identification of a more 'challenging' group of patients with multiple somatic symptoms and worse QOL. These may benefit from early multidisciplinary approach involving rheumatologists and pain specialists.

Disclosure of Interest None Declared.

PWE-161 THE MACROGOL DRINK TEST TO DISTINGUISH FUNCTIONAL CONSTIPATION (FC) AND CONSTIPATION PREDOMINANT IRRITABLE BOWEL SYNDROME (IBS-C): UNDERLYING MECHANISMS DEMONSTRATED USING MRI

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Introduction Patients with constipation may have either FC or IBS-C which require different treatments. They are often dissatisfied with their treatment because diagnosis relies on symptoms which frequently overlap.

Methods 46 CC patients (24 FC and 22 IBS-C), age 18–68 years, unresponsive to simple laxatives, were compared with 11 healthy volunteers (HV). Whole gut transit (WGT) was assessed using a MRI scan 24 h following ingestion of 5 marker pills as previously validated. Patients then consumed 1 litre of macrogol (MCG) followed by hourly MRI scans for 4 h and scored bowel symptoms from 0–10 (none-severe). Colonic movements were assessed using a motility index (MI) based on colonic wall movement and hypersensitivity index (HI) was calculated as bloating symptom/ascending colon (AC) volume.

Results Mean (SD) See Table 1. FC and IBS-C have slower WGT and higher HI than HV. FC showed significantly greater fasting SBWC, AC volume and reduced MI following ingestion of MCG compared to HV and IBS-C. Moreover, FC showed impaired response to MCG with longer time to first bowel movement and reduced stool frequency on the study day when compared with HV and IBS-C. Time to 1st bowel movement correlated significantly with AC volume 2h post MCG, $r = 0.44$, $p = 0.004$ and fasting SBWC,$r = 0.34$,$p = 0.035$. Using a cut-off >230 min distinguishes FC from IBS-C with sensitivity 55% and specificity 95%; this needs validation in a repeat study.

Conclusion Time to first bowel movement >230 min makes IBS unlikely and should help target treatments. Our MI studies show this is dueto greater motility response to distension in IBS-C who has lower fasting SBWC and AC volumes versus FC. IBS-C showed similar features to HV but can be distinguished by greater HI following distension which suggest hypersensitivity. This inexpensive test done without MRI could help clinicians to distinguish these 2 conditions.

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PWE-162 AN AUDIT OF TESTING FOR COELIAC DISEASE IN PATIENTS DIAGNOSED WITH THE IRRITABLE BOWEL SYNDROME AT A LARGE PRIMARY CARE CENTRE

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Introduction NICE guidance recommends that patients presenting with symptoms suggestive of the irritable bowel syndrome

Abstract PWE-161 Table 1

Mean (SD)	HV (n = 11)	FC (n = 23)	IBS-C (n = 20)	P value
WGT (h)	30.4	108.2*,**	71.4*	<0.0001
Fasting small bowel water content (SBWC) (ml)	83 (64)	114 (97) **	57 (61)	0.0383
Fasting AC (ml)	193 (84)	314 (100) *,**	219 (66)	0.0002
AC volume 2h post ingestion of MCG (ml)	357 (153)	597 (170)	376 (163)	<0.0001
MI 2h post ingestion of MCG (s)	80.2 (48.1)	28.3 (35.1) *,**	56.4 (42.9)	0.0044
Time to first bowel movement (min)	117.3 (62.4)	588 (1034) *,**	97.3 (72)	0.0001
Bowel frequency on study day	7.8 (2.7)	3.9 (4.1) *,**	7.8 (3.0)	<0.0001
Hypersensitivy Index (l^{-1})	5.7 (4.9)	12.3 (6.6) *	16.6 (14) *	0.0133
	*p < 0.05 compared to HV, **p < 0.05 compared to IBS-C.			