more than one FGID. The commonest FGID was IBS, followed by FD. Functional bowel disorders accounted for 38.9% of FGIDs seen in clinic.

Number (n = 167) Percentage

Abstract PTU-136 Table 1

IBS	52	31.1
FD	38	22.8
Functional abdominal pain	20	12.0
Functional heartburn	20	12.0
Functional bloating	15	9.0
Functional diarrhoea	7	4.2
Constipation/slow transit	6	3.6
Defaecation disorder	5	3.0
Functional chest pain	4	2.4
Globus	3	1.8

Conclusion FGIDs accounted for over 40% of a Gastroenterologist's workload in clinic. Given that some of these conditions have a similar prevalence in the community, the disparity in prevalence among individual FGIDs seen in a Gastroenterology outpatient clinic suggests that General Practitioners are more comfortable dealing with some FGIDs than others.

Disclosure of Interest None Declared

PTU-137 'NUTRIENT SENSING IN THE HUMAN GUT: INVESTIGATION OF THE CO-LOCALIZATION RATE BETWEEN CASR, T1R1 AND GPR43 RECEPTORS WITH SATIETY PEPTIDES IN THE HUMAN ANTRUM, TERMINAL ILEUM AND ASCENDING COLON.'

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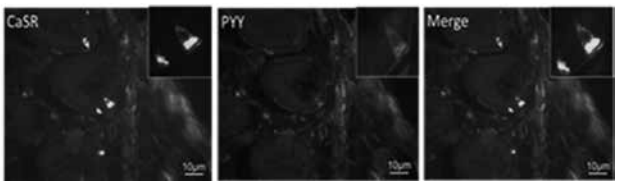
[1,*]V Galanakis, [1]M Peiris, [1]A L Blacksaw. *[1]Neurogastroenterology, Wingate Institute of Neurogastroenterology, Blizard Institute, Barts and The London School of Medicine & Dentistry, Queen Mary, University of London, London, UK, London, UK*

Introduction Increasing evidence from animal studies show that apical nutrient sensing receptors, expressed in gut enteroendocrine cells, play a key role in the release of satiety peptides[1,2]. Early human studies indicate a similar expression pattern of these receptors and role in peptide release[3]. In this study the anatomical relationship between amino acid sensing (CaSR), carbohydrate sensing (T1R1), and short chain fatty acid sensing (GPR43) receptors and appetite regulating peptides GLP-1, PYY, 5-HT was investigated in the human gut.

Methods Healthy full thickness human gut sections were incubated with primary and fluorescent secondary antibodies and they were viewed under the fluoroscopic microscope to investigate co-localization of the CaSR, T1R1 and GPR43 with the GLP1, PYY and 5HT.

Results The co-localization rate between CaSR and PYY, GLP1 and 5HT was 0%, < 1% and 43% in the antrum, 20%, 12% and 82% in the ileum and 26%, 14% and 91% in the colon, respectively. Co-localization of T1R1 and GLP1 was observed only in the antrum and the colon. GPR43 was not expressed.



Abstract PTU-137 Figure

Conclusion CaSR is expressed at protein level and is colocalized with PYY, 5HT and GLP1 in the human antrum, terminal ileum and ascending colon. T1R1 expression at protein level is very limited in all the tested tissues. GPR43 expression was not observed. The results suggest that CaSR is linked to PYY, GLP1 and 5HT release in the human gut, with data being stronger for the 5HT release.

Disclosure of Interest None Declared

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PTU-138 CENTRAL OBESITY AND WAIST BELT CAUSE PARTIAL HIATUS HERNIA AND SHORT SEGMENT ACID REFLUX IN HEALTHY VOLUNTEERS

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[1,2,*]Y Y Lee, [3]J G Whiting, [1]E V Robertson, [1]M H Derakhshan, [1]A A Wirz, [4]D Morrison, [5]A Weir, [5]D Smith, [1]A Kelman, [1]K E L McColl. *[1]University of Glasgow, Glasgow, UK; [2]Universiti Sains Malaysia, Kota Bahru, Malaysia; [3]University of Strathclyde; [4]Scottish Universities Environmental Research Centre; [5]Southern General Hospital, Glasgow, UK*

Introduction Epidemiology demonstrates an association between obesity, hiatus hernia and acid reflux but mechanism is unclear. We have examined the structure and function of the gastro-oesophageal (GO) junction in healthy subjects with and without obesity and the effects of elevating intra-abdominal pressure with belt.

Methods We recruited 8 subjects with normal (< 94 cm males < 80 cm females) and 8 with increased (> 102 cm males > 88 cm females) waist circumference, matched for age and gender. To allow accurate monitoring of location of the GO junction and its proximal movement during TLOSRs, a magnet (2x1 mm) was endoscopically clipped to the SCJ. Combined assembly of locator probe, high-resolution pH catheter and slimline manometer was passed nasally. After a standard meal, recording seated upright was continued for an hour. A waist belt was applied on a separate day throughout the entire recording. The effect of obesity was assessed by comparing obese vs. non-obese, both without belt. The effect of belt was assessed by comparing entire group with and without belt. The effect of belt in obesity was assessed by comparing belt-on vs. off in obese subjects. All results were in mean (SEM).

Results Location of the SCJ (P = 0.006) and pH step-down (P = 0.01) were displaced proximally in obese vs. non-obese but the diaphragm was not displaced as reflected by peak LOS pressure (pLOS) and pressure inversion point (PIP) (Figure). With belt-on vs. off, there was similarly proximal displacement of SCJ and pH step-down and also of the diaphragm (P = 0.003) and LOS (upper and lower border, P = 0.01 and 0.03 respectively). In obese subjects with belt-on vs. off, there was proximal displacement of SCJ, pH step-down and diaphragm. There was marked proximal migration of SCJ during TLOSRs with its magnitude being less in obese vs. non-obese (4.2 vs. 6.8 cm, P = 0.04) and belt-on vs. off (3.9 vs. 5.5 cm, P = 0.01), consistent with its resting position being already proximally displaced. At traditional site (5 cm above LOS), the mean % time pH < 4 was minimal (0 – 0.5%) in all studied groups, however, acid exposure above the SCJ but below upper border LOS was increased in belt-on vs. off (6.2% vs. 1.6%, P = 0.01) and in obesity with belt-on vs. off (9.7% vs. 3.0%, P = 0.04) but not obese vs. non-obese (P = 0.2).