OWE-027 EFFECTS OF PRIOR JEJUNAL FEEDING ON GASTRIC EMPTYING AND SYMPTOMS IN PATIENTS WITH DIABETIC GASTROPARESIS

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Introduction Diabetic gastroparesis (DG) affects up to 20% patients with type I Diabetes Mellitus (DM). Impaired gastric function is thought to be the cause of nausea, vomiting, abdominal pain and impaired glycaemic control. DG does not respond reliably to intensive insulin regimes or prokinetic medications. Jejunal nutrition (JN) is an option in patients that cannot maintain weight. The benefits are thought to be improved nutrition and glycaemia; however, we have observed that some DG patients can eat normally during JN.

We propose that DG represents a failure of oral nutrition to 'switch' the stomach from the fasted to the fed state with nutrition delivered direct to the jejunum triggering neuro-hormonal mechanisms that induces normal gastric function. This study tests the hypothesis that JN prior to a meal improves postprandial symptoms and gastric function.

Methods Diabetic patients with severe symptoms (GCSI >27), diabetic controls (GCSI <14) and healthy controls (HC) entered a randomised, double blind, controlled trial. Glycemia was controlled. NJ feeding tube was placed. Liquid nutrient (2 kcal/min) or water was infused for 60 min. The validated Nottingham Test Meal was then ingested (NTM liquid: 400 mL, 300 kcal; solid: 12 non-nutrient agar beads). Symptoms were documented (VAS), gastric function by MRI and the GI-peptide response was monitored. Mixed model analysis compared response to intervention and between groups

Results 9 DG patients, 9 diabetic and 12 HC were recruited. There was no difference in demographic features between groups. DG patients reported higher satiety, bloating and pain after NTM ingestion than diabetic and healthy controls ($p < 0.05$).

Sensations were not affected by JN in controls; however, fullness, bloating and pain were reduced by JN in DG patients ($p < 0.01$, figure).

Liquid GE was similar in both study arms ($p \geq 0.727$). Antral contraction wave (ACW) frequency was 2.7/min in health and was highest in diabetic controls (3.1/min). Solid GE was more rapid after JN than water and, again, was highest in diabetic controls (2 (1 to 3) and 3 (1 to 7) more beads emptied @60 min, both $p < 0.05$). Compared to water, JN induced a greater GI-peptide response; however, this was less pronounced in both diabetic groups. A correlation with symptoms or GE was not identified.

Conclusions This RCT demonstrates beneficial effects of prior JN on fullness, bloating and pain after a 400 mL test meal in DG patients. Additionally, solid GE was accelerated after JN; however, this effect was not limited to DG patients. These findings suggest that effects of JN on symptoms are not mediated by improvement in GE but on other aspects of gastric function or visceral sensitivity. Future studies will identify patients likely to benefit from this novel approach to treatment.

Abstract OWE-027 Figure 1

Average sensation showing difference between JN and placebo (water) study arms with 95% confidence bands. Negative values demonstrate a reduction in symptoms with JN

OWE-028 ACTIB TRIAL (ASSESSING COGNITIVE BEHAVIOURAL THERAPY IN IRRITABLE BOWEL): A MULTICENTRE RANDOMISED CONTROLLED TRIAL

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Introduction Irritable Bowel Syndrome (IBS) is a common chronic gastrointestinal condition, characterised by abdominal pain, bloating and change in bowel habit. Medications have limited benefit and many patients experience ongoing symptoms with significant impact on quality of life. Cognitive behavioural therapy (CBT) for IBS is recommended in NICE guidelines but NHS access is very limited. Objective: To determine the clinical effectiveness of therapist telephone delivered CBT and web-based CBT self-management with minimal therapist support compared to treatment as usual in adults with refractory IBS.

Methods ACTIB is a National Institute for Health Research (NIHR) multicentre randomised controlled trial. Participants: Adults (≥ 18 years) with refractory IBS who had been offered first-line therapies (eg, antispasmodics, antidepressants or fibre-based medications) and had continuing IBS symptoms ≥ 12 months, were recruited over 23 months from primary and secondary care in the south of England and London. The interventions were therapist telephone delivered CBT (TCBT) or Web-based CBT self-management with minimal therapist support (WCBT) versus treatment as usual (TAU). Main