MIND OR MESENTERY? DO THE TYPE, FREQUENCY AND SEVERITY OF REFLUX SYMPTOMS IN PATIENTS WITH COELIAC DISEASE AND INFLAMMATORY BOWEL DISEASE SHED LIGHT ON THEIR CAUSE?

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Introduction Coeliac Disease and Inflammatory Bowel Disease (IBD) are associated with an increased prevalence of reflux. Speculated reasons for this include disturbances of gastrointestinal (GI) motor function and disturbances of visceral sensitivity. We aimed to chart the type of reflux symptoms in patients with Coeliac Disease, Ulcerative Collitis (UC) and Crohn's Disease (CD), determining if they were more likely to experience more symptoms and more frequently and/or severely than controls.

Methods Postal survey of 1031 individuals (8% 18–25 years, 9% 26–35 years, 17% 36–45 years, 18% 46–55 years, 22% 56–65 years, 26% >66 years) composed of age and sex-matched controls n=348 (36% male) and histologically proven patients:

Coeliac Disease n=225 (25% male. Mean disease duration 8 years; range 0.5–51 years), UC n=228 (43% male 16.5 years; 1–60 years), CD n=230 (28% male. 15.5 years; 1–52 years). Questionnaire: (1) condition specific disease activity measure (2) screen of reflux symptoms. Type: heartburn, retrosternal pain, regurgitation, belching, dysphagia. Frequency: <2 days/ week, 3–5 days, >5 days. Severity: Mild, moderate, severe. (3) The Hospital Anxiety and Depression Scale (HADS).

Results Age and disease activity were not confounding factors. Reflux prevalence: Controls 50%; Coeliac Disease 66%; UC 62% and CD 72% (p≤0.0001). Patients had a greater likelihood of dysphagia than controls (Coeliac Disease patients: OR 3.9, 95% CI 2.2 to 7.0, p≤0.0001; IBD patients: OR 2.5, 95% CI 1.4 to 4.3, p=0.0004). Retrosternal pain was more likely in Coeliac Disease patients (OR 2.3, 95% CI 1.5 to 3.5, $p \le 0.001$) and regurgitation more likely in IBD (OR 2.0, 95% CI 1.3 to 3.1, p=0.0004). There was little difference in the frequency of reflux between patients and controls ($p \ge 0.05$). Coeliac Disease patients were more likely to experience severe reflux (OR 6.8, 95% CI 3.6 to 12.7, p=0.001) and IBD patients more likely to have moderate reflux (OR 2.2, 95% CI 1.6 to 3.2, p≤0.0001). Stepwise increases in HADS scores in association with increasing reflux severity was observed in all participants ($p \le 0.0001$). **Conclusion** Reflux symptoms are common in patients with Coeliac Disease and IBD. This provides evidence of GI motor disturbances accounting for the greater likelihood of dysphagia, retrosternal pain and regurgitation. Patients are more likely to perceive reflux of greater severity, which suggests visceral hypersensitivity. Psychological unease is associated with increasing perceived severity of reflux in controls and patients implying that psychology may contribute to visceral hypersensitivity regardless of gut pathology. Given our results, however, there may be interplay of motor and sensitivity disturbances in Coeliac Disease and IBD.

Competing interests None.

Keywords Anxiety, Coeliac Disease, Depression, Functional GI Disorders, Inflammatory Bowel Disease, Reflux.