

questionnaire and an assessment of GFD adherence were completed. Reflux questionnaire included the type (heartburn, belching, regurgitation, retrosternal pain, dysphagia) and severity (mild, moderate, severe) of symptoms. Full GFD adherence (FA) was described as following a GFD for everyday of the previous twenty-eight with no dietary transgressions. Partial/no GFD adherence (PNA) was any level of GFD adherence below FA.

Results Age and sex were not confounding factors. 158 patients (71%) reported FA versus 66 (29%) who were PNA. The ROME II Criteria was fulfilled by 52 (23%) of Coeliac Disease patients. 11% of FA patients fulfilled the criteria versus 52% of PNA patients. The Relative Risk of IBS in PNA patients in comparison to FA patients was 1.828 (95% CI 1.41 to 2.36, $p \leq 0.0001$). Reflux symptoms were reported by 147 (66%) of Coeliac Disease patients. 62% of FA patients reported reflux versus 74% of PNA patients ($p \geq 0.05$). Comparison of reflux severity: Mild: FA 28%, PNA 29% ($p \geq 0.05$); Moderate: FA 25%, PNA 23% ($p \geq 0.05$); Severe: FA 9%, PNA 13% ($p \geq 0.05$).

Conclusion We have observed that the prevalence of ROME II consistent IBS is almost five times greater in patients with sub-optimal GFD adherence in comparison to consistently adherent patients (52% versus 11%). We found little difference in either the prevalence or severity of reflux between these patient groups which may oppose an association of poor adherence and widespread gut dysmotility. While symptomatic responses to dietary gluten may be consistent with the ROME II Criteria, our findings suggest the development of IBS may be attributed to gut inflammation. This finding would have implications in our management of IBS in Coeliac Disease and other chronic inflammatory GI disorders and promote a view of IBS as inflammatory and not functional.

Competing interests None.

Keywords Coeliac Disease, Gluten free diet, Irritable Bowel Syndrome.

PWE-057

SUB-OPTIMAL GLUTEN FREE DIET ADHERENCE IN COELIAC DISEASE: REINFORCING THE LINK BETWEEN GUT INFLAMMATION AND IRRITABLE BOWEL SYNDROME?

doi:10.1136/gut.2011.239301.320

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Introduction Symptoms consistent with the ROME Criteria for Irritable Bowel Syndrome (IBS) have been reported in patients with Coeliac Disease. Treatment for Coeliac Disease is a Gluten-Free Diet (GFD), which aims to dampen inflammation, restore small bowel architecture and reduce symptoms. We questioned whether patients with less than, or no adherence to a GFD – and therefore, we assumed, active gut inflammation – were more likely to report IBS type symptoms than patients with full adherence. We also recorded the prevalence of reflux symptoms to determine whether small bowel inflammation is specifically associated with IBS or symptoms of wider gut dysmotility.

Methods 224 histologically proven Coeliac Disease patients (5% 18–25 years, 4% 26–35 years, 18% 36–45 years, 19% 46–55 years, 26% 56–65 years, 28% >66 years) of which 26% were male. Mean disease duration 8 years, range 0.5–52 years. The ROME II Criteria for IBS symptoms, a reflux symptom