

PWE-079

# EFFECT OF IRRITABLE BOWEL SYMPTOMS ON QUALITY OF LIFE IN PEOPLE WITH AND WITHOUT TYPE 1 DIABETES MELLITUS

doi:10.1136/gut.2011.239301.342

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**Introduction** Gastrointestinal symptoms are more common in people with Type 1 diabetes than the non-diabetic population. Irritable bowel symptoms (IBS) are associated with reduced quality of life in non-diabetic cohorts but the prevalence in Type 1 diabetes is not clear. Similarly the effect on quality of life is unknown. The aim of this study was to examine the prevalence of IBS in Type 1 diabetes compared to non-diabetic controls and the effect upon quality of life.

**Methods** Patients with Type 1 diabetes were recruited from the diabetes centre and a gastrointestinal symptom questionnaire completed. Quality of life was assessed using the short form 36 version 2 (SF-36) questionnaire and glycaemic control assessed using HbA1c. Non-diabetic controls were recruited locally and were administered the same questionnaires. Prevalence of IBS symptoms (as judged by the Rome II criteria) and quality of life scores were compared between the groups.

**Results** 662 individuals with Type 1 diabetes and 602 controls were recruited into the study. The prevalence of IBS was 106/662 (16%) in those with Type 1 diabetes and 48/602 (7.9%) in controls (OR 2.2, 1.5–3.1,  $p<0.001$ ). In those with diabetes, HbA1c was 8.3 in those with IBS compared to 8.0 in those without IBS ( $p=ns$ ). Symptom burden was not significantly different when comparing people with Type 1 diabetes and IBS and controls with IBS. Quality of life scores were significantly lower in all domains in people with Type 1 diabetes and IBS symptoms compared to people with Type 1 diabetes without IBS symptoms and non-diabetic controls with and without IBS ( $p<0.001$ ). In the non-diabetic group IBS symptoms were associated with lower quality of life scores in the bodily pain, general health and physical composite score domains (all  $p<0.05$ ).

**Conclusion** IBS symptoms are more common in people with Type 1 diabetes compared to controls. Patients with Type 1

diabetes and IBS have worse quality of life scores than Type 1 diabetes patients without IBS symptoms and non-diabetic controls with or without IBS. The quality of life differences between Type 1 diabetes patients with and without IBS could not be explained by glycaemic control. Quality of life scores were lower in non-diabetic subjects with IBS compared to non-diabetic controls. The relationship between IBS and Type 1 diabetes is poorly understood – however our data suggest that questioning diabetic patients about IBS and addressing these symptoms may be beneficial to the patient.

**Competing interests** None.

**Keywords** Irritable Bowel Syndrome, Quality of Life, Type 1 diabetes mellitus.