Inflammatory bowel disease is more common in type 1 diabetes mellitus

Introduction

Type 1 diabetes mellitus is associated with an increase in gastrointestinal symptoms and other gastrointestinal diseases such as coeliac disease. There is conflicting data regarding the association of inflammatory bowel disease (IBD) with type 1 diabetes. The authors aimed to determine the prevalence of IBD in type 1 diabetes and assess the effect of quality of life and glycaemic control.

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. Controls were selected from the diabetes cohort matched for age and sex in a 2:1 ratio for comparison of quality of life and glycaemic control. Non-diabetic controls were recruited locally and were administered the same questionnaires. Prevalence of IBD 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 IBD was 12/662 (1.5%) in those with type 1 diabetes and 2/602 (0.3%) in controls (OR 5.5, 1.2–24.9, p<0.013). In those with diabetes, HbA1c was 7.7 in those with IBD compared to 7.5 in those without IBD (p=NS). Symptom burden was higher in people with type 1 diabetes and IBD compared to diabetes only (median 2.0 vs 1.0, p=0.009). Quality of life scores were significantly lower in the general health and vitality domains compared to diabetes only (p=0.004 and 0.041 respectively). There was a trend to lower scores in the social functioning and mental health composite scores.

Conclusion

IBD is more common in type 1 diabetes than the general population although the mechanism is uncertain but may be related to autoimmunity. Quality of life is adversely affected by having both IBD and type 1 diabetes but this could not be explained by changes in glycaemic control.

Competing interests

None.

Keywords

Inflammatory bowel disease, prevalence, quality of life, type 1 diabetes mellitus.