Eating disorders in patients with the irritable bowel syndrome: a comparison with inflammatory bowel disease and peptic ulceration

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A total of 152 female outpatients with the irritable bowel syndrome were systematically assessed for the presence of an eating disorder using an eating attitudes questionnaire. Seventy-one female patients with organic gastrointestinal disorders served as controls. Eight patients with the irritable bowel syndrome, compared with none of the control subjects, had evidence of overt bulimia or anorexia nervosa. In addition, a total of 35 (23%) patients compared with only 4 (6%) controls showed evidence of abnormal attitudes to eating ($P = 0.012$). There was a relationship between the presence of psychiatric illness and eating disorder. Eating disorders in the irritable bowel syndrome may arise either directly as a result of concern about the effect of eating on symptoms, or indirectly as a consequence of associated psychiatric illness. The results of this study suggest the latter may be more likely.

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Introduction

Patients with irritable bowel syndrome commonly complain that their symptoms are exacerbated by the process of eating [1]. Indeed, some claim that they would be better off if they did not have to eat at all. It is almost routine for patients to be advised to modify their dietary intake of fibre [1], and the subject of food intolerance in irritable bowel syndrome has recently become very topical [3–5]. It is not uncommon for patients to attribute the bloating that accompanies irritable bowel syndrome to excess fat and as a consequence to adopt weight-reducing diets.

For these reasons it might be expected that some patients with irritable bowel syndrome could develop eating disorders such as anorexia or bulimia nervosa. A systematic assessment of irritable bowel syndrome in relation to eating disorders has not been previously reported. Thus a well recognized eating attitudes questionnaire [6] was administered to female patients with irritable bowel syndrome and a control group of women with organic gastrointestinal disease. Men were specifically excluded from the study as eating disorders are so rare in male subjects [7].

Methods

A total of 152 consecutive female outpatients with the irritable bowel syndrome were studied over a period of 20 months: 98 were new patients and 54 were being seen for review. The diagnosis of irritable bowel syndrome was based on the presence of abdominal pain, abdominal distension and an abnormal bowel habit in association with normal haematology, serum biochemistry, rectal biopsy and colonoscopy or contrast radiology.

The control group consisted of 34 patients with inflammatory bowel disease and 37 patients with peptic ulcer disease. All patients were symptomatic and the inflammatory bowel subjects had active disease with colonic involvement and no history of surgery for their disorder. None of the patients in the inflammatory bowel group was on high-dose steroids. Subjects were initially approached in the outpatient clinic but were later interviewed by a research psychiatrist in the privacy of their own homes.

The 40-item Eating Attitudes Test (EAT) [6], a self-report questionnaire which measures abnormal attitudes to eating, was given to each patient. The higher the score

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the greater the likelihood of an eating disorder, with a score of over 30 strongly suggestive of anorexia or bulimia nervosa. The questionnaire was slightly modified to exclude four ambiguous items that could relate to either an eating problem or a gastrointestinal disorder: (1) feeling bloated after meals; (2) use of laxatives; (3) presence of constipation; (4) liking stomach to be empty.

This minor modification would reduce rather than increase the chances of the patient reaching a clinically significant score. Revalidation of the questionnaire was not felt necessary, particularly as the same questions were removed for both the study and the two control groups. Patients were also given a short questionnaire detailing possible food intolerances.

For the purposes of this study psychiatric status was assessed using the psychiatric assessment schedule [8] which enables DSM-III [9] diagnoses, related to either anxiety or depression, to be made. All interviews were conducted by the same psychiatrist, trained in the use of this semi-structured questionnaire.

As the distribution of total EAT scores was skewed towards low scores, with over 75% of patients in both groups scoring below 10, results were analyzed by dividing total EAT scores into ranges of 10 (0–9, 10–19, 20–29, 30–39). Contingency table analysis (χ^2) was used to compare the distribution of scores within the irritable bowel syndrome and organic patient groups.

Results

All women who were approached in the clinic agreed to participate in the study. There was no significant difference between the irritable bowel syndrome group and the organic group in terms of age or social class. The mean age of the irritable bowel syndrome group was 39 years (s.d. ± 14.2) and that of the organic group was 42 years (s.d. ± 13.59).

EAT scores of 10 or more were observed in 23% of patients with irritable bowel syndrome compared with only 6% of controls with organic gastrointestinal disorders (Table 1; $P < 0.01$). Eight of the patients with irritable bowel syndrome scored above the threshold score of 30 on the EAT compared with none of the organic group. There was no apparent correlation between an abnormal EAT score and the predominant abnormality of bowel habit in the irritable bowel syndrome subjects or in the prevalence of perceived food intolerance. It is of interest that certain EAT items were more common in patients with irritable bowel syndrome than in controls: (1) preoccupation with desire to be thinner ($P < 0.001$); (2) food controlling life ($P = 0.019$); (3) engaging in dieting behaviour ($P < 0.05$); (4) giving too much time and consideration to food ($P < 0.001$).

Seventy-three (48%) of the irritable bowel syndrome patients were found to have evidence of psychiatric illness and this is in accord with previous studies. In contrast, the prevalence of anxiety and depression was significantly lower ($P < 0.05$) in the organic gastrointestinal group (26%). Within the irritable bowel syndrome group itself, significantly more of the patients with psychiatric disorder had higher total scores on the EAT than patients without a psychiatric diagnosis: 55.3% scored above 10 compared with only 12.9% of patients without psychiatric illness ($P < 0.01$).

Discussion

This study suggests that a small but significant proportion of women attending a hospital outpatient clinic with irritable bowel syndrome suffer from some form of eating disorder. This seems particularly likely as patients in the control groups suffering from other gastrointestinal disorders, which could possibly be associated with changes of eating patterns, did not score highly. It is also of interest that there was no significant difference in EAT scores between the two control groups, again highlighting the difference in the irritable bowel syndrome patients. The prevalence of above-threshold EAT scores in the irritable bowel syndrome group was well in excess of those in a normal general practice population (5.2 versus 1.1%) [10], and was more in accord with that of at-risk groups in the UK [11–13].

The results of this study suggest the possibility of a link between the irritable bowel syndrome and eating disorders — which may be either direct or indirect — the possibility of an indirect link is supported by the observation that patients with high EAT scores were more likely to have psychiatric illness. Thus the presence of eating

Table 1. Total EAT scores for patients with the irritable bowel syndrome in comparison with patients with organic gastrointestinal disorder.

Ranges of total EAT scores	IBS group (n = 152) n	IBS group (n = 152) %	Organic group (n = 71) n	Organic group (n = 71) %	Significance
0–9	117	77	67	94.4	
10–19	23	15.1	4	5.6	$\chi^2(2) = 10.99$
20–29	4 } 12*	2.6	0 } 0	0	$P = 0.005$
30–39	8	5.2	0	0	

*EAT scores of 20–29 and 30–39 were collapsed for statistical analysis. IBS, irritable bowel syndrome.

disorder may have been a reflection of psychiatric status rather than being directly related to the bowel disorder. This does not exclude the possibility that in certain instances the presence of symptoms peculiar to the irritable bowel syndrome (e.g. abdominal distension and nausea) may in some way predispose to the development of an eating disorder.

It is possible that laxative abuse, a common feature of eating disorders, may lead to symptoms similar to those of irritable bowel syndrome and thus inclusion of such subjects into the study group. All subjects were asked about laxative abuse but as this activity is usually secretive, clarification of this point would be difficult.

It could be argued that the patients' perception of food intolerance may have influenced their responses to the EAT questionnaire. This is unlikely as there was no significant difference in EAT scores between the 30% of patients who claimed some form of food intolerance and the remainder who did not.

Of all the patients with elevated EAT scores, only eight would have been consistent with a diagnosis of bulimia or anorexia nervosa. This study clearly demonstrates that there are many more patients with the irritable bowel syndrome who have partial or subclinical syndromes, and their recognition may be important in the overall management of their irritable bowel syndrome.

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