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*Declan McLoughlin, MB, BCh, BAO, *Registrar, St Patrick's Hospital, Dublin 8, Republic of Ireland*; Patrick McKeon, MD, FRCPI, MRCPsych, *Consultant Psychiatrist, St Patrick's Hospital, Dublin 8*

*Correspondence

Psychiatric Diagnoses in Ulcerative Colitis
A Controlled Study

G. MAGNI, G. BERNASCONI, P. MAURO, A. D'ODORICO, G. C. STURNIOLO, G. CANTON and A. MARTIN

Fifty patients with UC and 50 matched controls with urolithiasis were interviewed with the SADS (lifetime version) and completed the SCL-90. According to information given during the SADS, there was a history of psychiatric disturbance in 11 UC patients (22%) and 8 controls (16%). At the time of the interview a psychiatric disturbance was present in 31 UC patients (62%) and four controls (8%), the most frequent diagnoses in the former being minor depression and generalised anxiety disorder. Patients with UC scored significantly higher than the controls on all the different SCL-90 subscales.

British Journal of Psychiatry (1991), **158**, 413-415

The possible association between psychiatric disturbances and ulcerative colitis (UC) is a topic still open to debate. Pioneering research done by Daniels (1948) and Alexander (1950) clearly suggested the presence of emotional disorders in patients with UC. Helzer *et al* (1982) reviewed the more recent studies and concluded that these were methodologically poor: no explicit psychiatric diagnostic criteria were used except in one study; in this, however, the sample size was very small and the reliability of the psychiatric interview used was not stated. Helzer *et al* (1982), using a structured interview, found no greater frequency of psychiatric disturbances in 50 patients with UC compared with 50 controls suffering from chronic medical illnesses; 26% of the former compared with 30% of the latter reported one psychiatric diagnosis, with depression being the most frequent disorder in both groups.

As far as we know, two other studies which used operational diagnostic criteria and a standardised interview have been published since that of Helzer *et al*. One of these, however, used no controls (Andrews *et al*, 1987), and in the other the size of the experimental group was relatively small ($n = 27$) (Tarter *et al*, 1987).

In the present study we assess the prevalence of psychiatric disturbances in 50 consecutive UC patients and in 50 matched controls. For the psychiatric evaluation, operational diagnostic criteria and a widely utilised standardised interview were used.

Method

The subjects included 50 consecutive patients with UC admitted to the Department of Gastroenterology, University of Padua. There were 27 males and 23 females, with a mean age of 36 years (range 15-62, s.d. 14.1). Mean duration of the disease was 5.2 years (s.d. 4.7). The severity of the physical symptoms was assessed using a slightly modified version of Edwards & Turnlove's (1963) classification. In this there are four degrees of severity ranging from 1 (remission) to 4 (severe activity). Twenty-four patients were in a remission phase of the disease (stage 1), 25 in a phase of mild activity (stage 2) and one in a phase of moderate activity (stage 3). For the treatment of UC, 37 patients were taking sulfasalazine and 8 mesalazine; 12 patients were also taking oral corticosteroids. Nobody refused to participate in the study.

Controls were patients suffering from urolithiasis and undergoing an extracorporeal shock-wave lithotripsy at the Department of Urology of the same university hospital. Each control was matched with an experimental patient for sex, age (±5 years) and marital status. For a few young male patients with UC it was not possible to find a suitable control and therefore in these cases male patients suffering from symptomatic varicocele were chosen. The mean duration of the disease was 4.8 years (s.d. 6.8). None of the controls refused to participate in the study.

Patients and controls were evaluated with the lifetime version of the Schedule for Affective Disorders and Schizophrenia (SADS-L; Endicott & Spitzer, 1978), which allows the formulation of psychiatric diagnoses according to Research Diagnostic Criteria (RDC; Spitzer *et al*, 1978). They also completed the Symptom Check List-90 (SCL-90; Derogatis *et al*, 1974), a widely used self-rating scale for the evaluation of psychological distress. It is made up of 90 questions designed to measure nine areas of symptoms: somatisation, problems of an obsessive–compulsive nature, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation and psychoticism.

For the statistical analysis of the data the χ^2 test and the Student *t*-test were used when appropriate.

Results

According to information given by patients during the SADS interview, in 11 patients with UC and eight controls (NS) there was a history of psychiatric disturbance before the onset of the present physical disorder. Diagnoses in the UC group included minor depression ($n = 5$), major depression ($n = 3$), generalised anxiety disorders (GAD) ($n = 2$) and panic disorder ($n = 1$). In the control group the diagnoses included alcoholism ($n = 3$), minor depression ($n = 1$), major depression ($n = 1$), phobic disorder ($n = 1$), GAD ($n = 1$), and substance dependence ($n = 1$).

At the time of the interview a psychiatric disturbance was present in 31 patients with UC and four controls ($\chi^2 = 31$, $P < 0.01$). The most frequent diagnoses in the UC group were minor depression ($n = 18$; 36%) and GAD ($n = 11$; 22%). Other diagnoses in the UC group included obsessive–compulsive disorder ($n = 1$; 2%) and labile personality ($n = 1$; 2%). In the control group there were diagnoses of minor depression ($n = 1$; 2%), GAD ($n = 2$; 4%) and phobic disorder ($n = 1$; 2%).

Considering the SCL-90 mean scores, patients with UC reported values significantly higher than the controls on all the scales (Table 1).

Table 1

Mean (s.d.) scores on the subscales and global index of the SCL-90 for 50 patients with ulcerative colitis (UC) and 50 matched controls

SCL-90	Patients with UC mean (s.d.)	t^1	Controls (mean (s.d.)
Subscale			
Somatisation	0.56 (0.57)	4.6*	0.17 (0.17)
Obsessive–compulsive	0.63 (0.60)	5.6*	0.12 (0.22)
Interpersonal sensitivity	0.52 (0.75)	4*	0.08 (0.18)
Depression	0.57 (0.66)	4.6*	0.12 (0.17)
Anxiety	0.59 (0.64)	4.3*	0.18 (0.19)
Hostility	0.69 (0.77)	5.2*	0.1 (0.17)
Phobic anxiety	0.32 (0.57)	3.6*	0.2 (0.08)
Paranoid ideation	0.54 (0.65)	4.7*	0.09 (0.19)
Psychoticism	0.33 (0.54)	3.8*	0.03 (0.08)
Global index	0.54 (0.56)	5.2*	0.11 (0.13)

*$P < 0.01$.
1. Student's *t*-test (two-tailed).

In the UC group, 14 patients were taking benzodiazepines sometimes, one benzodiazepines regularly and another one benzodiazepines and antidepressants regularly. In the control group, one patient was taking benzodiazepines sometimes and one regularly. There was no relationship between severity of the UC at interview and presence of psychiatric diagnoses nor between type of pharmacological treatment used for the UC and psychiatric diagnoses.

Discussion

The results show a greater frequency of psychiatric disorders diagnosed according to the RDC in the UC group than in the control population at the time of the interview. Data regarding the presence of psychiatric disorders before the onset of the medical disorders are similar in the two groups. The SCL-90 data confirm the existence of a greater proportion of psychiatric problems in the UC group, who scored significantly higher than the control group on all the subscales.

Even though almost all our UC patients had no (remission phase) or mild physical symptoms, some physical symptoms which were the direct result of the medical illness might have contributed to the psychiatric diagnoses. This could particularly apply to the most frequent diagnosis found in the UC group (i.e. minor depression) since two symptoms (fatigue and weight loss) listed under criterion B of the RDC for minor depression could theoretically be a result of the UC.

We therefore examined how many patients in our UC sample reported these symptoms and questioned whether the exclusion of these symptoms resulted in a different proportion of diagnoses of minor depression. Of 18 patients with minor depression, 11 reported having fatigue; all of them had at least two other symptoms listed under criterion B of the RDC which could not be attributed to the UC, in particular sleep difficulty and non-verbal manifestations of depression such as tearfulness, pessimistic attitude, self-pity and lack of interest or pleasure in usual activities. Only one patient reported weight loss, but he also reported tearfulness and recurrent thoughts of death or suicide. We can therefore conclude that the frequency of psychiatric diagnoses found was not inflated by somatic symptoms due to UC.

Our data are partially at variance with those of Helzer *et al* (1982), who did not find a significant difference between patients with UC and controls. There are several reasons for this discrepancy. Firstly, the control group used by Helzer *et al* (1982) was made up of subjects with various medical disorders (hypertension, diabetes, cardiac diseases, neoplasms), who were probably suffering from more

serious disturbances than our control group were. The percentage of psychiatric disturbances was indeed slightly higher in their control group (30%) than in their UC group (26%).

Secondly, they used Feighner criteria while we used the RDC. In our sample of 50 UC patients there was a higher proportion with a psychiatric diagnosis (62%) than in their equivalent sample (26%; $n = 50$). However, in our sample none of the subjects suffered from a major depression, while this was true in 10% of their sample.

The majority of our UC patients suffered from a minor depression according to the RDC; these cases are considered not ill according to the Feighner criteria. In the area of mood disorders we found more disturbances of a milder nature than Helzer *et al* (1982). This situation was similar in the other most frequent diagnostic category (GAD); here Helzer *et al* reported a prevalence of 8% while in our sample the figure is about 24%. Our data are in agreement with those gathered by Andrews *et al* (1987) and by Tarter *et al* (1987) who used criteria similar to us (DSM–III) and found a prevalence of anxiety disorders of about 22.5% and 29.5% respectively. The fact that there is no relationship between the prevalence of the psychiatric diagnoses and the severity of the UC at the moment of evaluation, is not surprising since the great majority of the patients had no gastrointestinal symptoms or very mild symptoms when interviewed.

In our sample the existence of psychological problems had been identified by the treating doctor in at least half of the sample, as judged by the number of patients taking psychotropics. However, the psychopharmacological treatment was based on minor tranquillisers and was independent of the diagnosis (e.g. of GAD or minor depression).

The fact that the prevalence of psychiatric disturbances is not significantly different between the experimental group and the control group in the period preceding the onset of the medical disorders, suggests that the psychiatric suffering is secondary to UC.

In summary, this study, using a valid and reliable psychiatric interview, found an increased prevalence of psychiatric disturbances in UC patients. About two out of three patients present with a concomitant psychiatric disturbance that is secondary to the gastrointestinal disorder; the most frequent diagnoses are minor depression and GAD. If and how these disturbances influence the outcome of the UC cannot be determined from this study. Overall, the findings suggest the need for a comprehensive approach to the patients with UC, which encompasses the psychological aspects of the disease.

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*G. Magni, MD, PhD, *European CNS Project Director, Wyeth-Ayerst, European Clinical Research and Development, Paris, France, and Department of Psychiatry, University of Padua School of Medicine, Padua, Italy*; G. Bernasconi, MD, *Research Fellow, Department of Psychiatry, University of Padua School of Medicine*; P. Mauro, MD, *Research Fellow, Department of Psychiatry, University of Padua School of Medicine*; A. D'Odorico, MD, *Research Fellow, Department of Gastroenterology, University of Padua School of Medicine*; G. C. Sturniolo, MD, *Senior Registrar, Department of Gastroenterology, University of Padua School of Medicine*; G. Canton, MD, *Senior Registrar, Department of Psychiatry, Vicenza Hospital, Vicenza, Italy*; A. Martin, MD, *Senior Registrar, Department of Gastroenterology, University of Padua School of Medicine*

*Correspondence: *Wyeth-Ayerst, European Clinical Research and Development, 6, Rue Clisson, F-75013, Paris, France*