

## Comment

Lactose intolerance should not be diagnosed by breath test alone: a positive breath test should be accompanied by symptoms that are induced by ingestion of a lactose load and relieved by removal of lactose from the diet. Using these criteria our results suggest that lactose intolerance is an uncommon cause of recurrent abdominal pain in white children in the north of England. The routine use of the hydrogen breath test for investigating recurrent abdominal pain is debatable. If full investigation is considered to be desirable by virtue of the duration or severity of the symptoms, however, lactose intolerance represents one of the treatable causes and should therefore be excluded, and the hydrogen breath test is a convenient non-invasive method.

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### Departments of Paediatrics and Medicine, St James's University Hospital, Leeds LS9 7TF

I BLUMENTHAL, MB, MRCP, senior registrar in paediatrics  
J KELLEHER, PHD, senior lecturer in biochemistry  
J M LITTLEWOOD, MD, FRCP, consultant paediatrician

## Rheumatoid arthritis: a psychiatric assessment

Although rheumatoid arthritis is regarded by many psychiatrists as a psychosomatic disease,<sup>1</sup> the importance of psychological factors has not achieved wide acceptance among rheumatologists.<sup>2</sup> No controlled study has been published of emotional events preceding onset in new cases.

We interviewed all women with rheumatoid arthritis seen within one year after the onset of symptoms and control women matched for age, and report here our results.

### Subjects, methods, and results

All patients were investigated by a rheumatologist (DAB). Those with symptoms of more than one year's duration were excluded. Patients believed to be developing early rheumatoid arthritis were referred for psychiatric interview. One year later they were reviewed and 13 were withdrawn because the diagnosis was not certain. The 22 patients remaining in the study had definite or probable rheumatoid arthritis (criteria of the American Rheumatism Association).

Each control was selected from women with the same initial as the patient in a GP's case index, the first woman with the same year of birth being selected.

The psychiatric interviews (by GHBB) of patients and controls lasted 45 to 60 minutes. Inquiry was made about the history of joint symptoms (or any recent illness in controls); and about the subject's family history, including her relationship with her parents, and her personal history, including her school career, work, and relationships with men. She was asked about her pre-existing personality and previous illnesses. Her psychological reactions to rheumatic symptoms and her present mental state were assessed. Lastly, specific inquiry was made about important life events during the year before the onset of symptoms (or the equivalent year in controls). After a general inquiry specific questions were asked about events affecting close relationships, jobs, accommodation, and financial security. Fisher's exact probability test (one-tailed) was used throughout.

Twenty-two patients with rheumatoid arthritis and controls aged 22 to 76 (mean 52) years were studied. The patients were seen on average seven and a half months after the onset of symptoms.

Twelve of the patients reported a bad relationship in childhood with their mothers compared with five controls ( $p=0.03$ ). Three of the patients and

none of the controls described serious mental illness in their mothers. Fifteen patients reported life events in the year before the onset of arthritis, compared with eight controls ( $p=0.03$ ) (table). In 12 of the 15 patients

### Life events reported

In patients	In controls
<i>Events carrying moderate or considerable long-term emotional threat</i>	
Husband's firm bankrupt	Learnt husband not paying mortgage
Moved to disliked job and had to move flat	Son (aged 20) in court
Unhappy second marriage with many stormy scenes	Husband very ill
Important relationship broken. Made redundant	
Transfer from much loved job	
Decided to terminate 20-year relationship	
Her severely depressed mother came to live with her	
Started college late; socially isolated	
Recent cohabitee (of seven years) moved in with another girl	
Only daughter getting married abroad	
New disliked job. Closest friend died	
New job, hostile manager; job threatened	
<i>Events carrying less serious emotional threat</i>	
Pleasant change in work	Close friend moved away
Widowed sister very ill	New, pleasant job
Death of cat ("most upsetting event")	Daughter had acute appendicitis
	Daughter moved away. Gave up job
	Retired. Son's wife left him

(compared with three of the controls) the events were assessed as carrying a moderate or considerable long-term emotional threat<sup>3</sup> ( $p=0.005$ ). In 11 of the 12 patients the interval between the event (or latest event) and the onset of symptoms was less than three months. Only three patients with rheumatoid arthritis did not report a bad relationship with their mother or a life event. They were the three oldest in the study (aged 68, 73, and 76 years).

## Comment

These findings suggest the possibility that emotional stress in the months before the onset of rheumatoid arthritis is one of the factors precipitating the disease process<sup>1</sup> and that women who report a bad relationship with their mothers in childhood are more vulnerable.

It is unlikely that the excess of life events reported by the patients may be accounted for by their attempting to "explain" the development of the illness or by an undiagnosed prodromal phase of the illness. Patients who experience traumatic life events before the onset of rheumatoid arthritis may possibly be more likely to consult their doctors and to be referred to hospital; but these factors are unlikely to explain the discrepancy found.

Further investigation of psychosomatic factors in rheumatoid arthritis is necessary and now under way. One aspect is the importance in the management of early rheumatoid arthritis of taking into account recent life events as well as the impact of the disease.

<sup>1</sup> Kiviniemi P. Emotions and personality in rheumatoid arthritis. *Scand J Rheumatol* 1977;**6**, suppl 18:1-132.

<sup>2</sup> Copeman textbook of the rheumatic diseases. 5th ed. Edinburgh: Churchill Livingstone, 1978:264.

<sup>3</sup> Brown GW, Harris T. *Social origins of depression*. London: Tavistock Publications, 1978:90.

<sup>4</sup> Amkraut A, Solomon GF. From the symbolic stimulus to the pathophysiological response: immune mechanisms. *Int J Psychiatry Med* 1975;**5**:541-3.

<sup>5</sup> Bartlett FC. Quoted by Brown GW, *et al*. Life events and psychiatric disorders. Part I. *Psychol Med* 1973;**3**:74-87.

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### Department of Rheumatology, Westminster Hospital, London SW1P 2AP

G H B BAKER, MD, FRCPSYCH, consultant psychiatrist  
D A BREWERTON, MD, FRCP, consultant rheumatologist

## Correction

### Ketotifen overdose: surveillance of the toxicity of a new drug

An error occurred in the table of this paper by Drs D B Jefferys and G N Volans (30 May, p 1775). The plasma concentrations of ketotifen should have been expressed in  $\mu\text{g/l}$ , not  $\text{mg/l}$ .