concentration and precipitation of dextran in the proximal tubule and the formation of casts, which obstruct the flow of tubular fluid.³ Dextran solutions may perhaps cause a functional reduction in glomerular filtration by raising plasma oncotic pressure⁴ and, after filtration and concentration in the proximal tubule, by raising tubular hydrostatic pressure.⁵ Plasma oncotic pressure was normal in our patient, although we did not measure it until 48 hours after the operation and thus may have missed a transient increase. This, however, would have been only a contributory factor in the development of the renal failure as there was clear evidence of severe structural damage to the kidney.

We recommend that infusions of large amounts of

Gelofusine should be avoided in patients with persistently low renal perfusion pressures or rates of urine flow.

- 1 Michie AJ, Koop CE, Walker JM, Ragni MC, Tracy J. Renal haemodynamics following intravenous administration of gelatin. *J Appl Physiol* 1952;4:677-81.
- 2 Figueroa JE, Burgos-Calderon R. Renal toxicity of low molecular weight dextran: a review of the literature. *J La State Med Soc* 1974;126:425-8.
- 3 Chinitz JL, Kim KE, Onesti G, Swartz C. Pathophysiology and prevention of dextran-40-induced anuria. *J Lab Clin Med* 1971;77:76-87.
- 4 Moran M, Kapsner C. Acute renal failure associated with elevated plasma oncotic pressure. *N Engl J Med* 1987;317:150-3.
- 5 Mailloux L, Swartz CD, Capizzi R, et al. Acute renal failure after administration of low molecular weight dextran. *N Engl J Med* 1967;277:1113-8.

(Accepted 26 July 1989)

Ranking of symptoms by patients with the irritable bowel syndrome

D G Maxton, J A Morris, P J Whorwell

Department of Medicine,
University Hospital of
South Manchester,
Manchester M20 8LR
D G Maxton, MRCP, lecturer
J A Morris, MSC, senior
medical statistician
P J Whorwell, FRCP,
consultant physician

Correspondence to:
Dr Whorwell.

Br Med J 1989;299:1138

Abdominal pain, distension, and an abnormal bowel habit are regarded as the main symptoms of irritable bowel syndrome. We found, however, that patients also complain of various other symptoms such as lethargy, backache, nausea, and urinary problems.¹ We assessed the relative importance of all symptoms related to the syndrome by asking patients to rank them in order of severity.

Patients, methods, and results

We studied 100 consecutive outpatients with the irritable bowel syndrome (89 women, 11 men; aged 18-74). An interview was conducted with the aid of 13 plastic cards each denoting a symptom (see table). One card specified a control symptom (dry skin) not known to be associated with the syndrome, and one card gave the patient an opportunity to specify an additional symptom. Patients were asked to select cards representing their symptoms and to rank the six most troublesome symptoms in order of severity. The most severe symptom scored six with subsequent symptoms being scored down to one. All symptoms suffered but not ranked were scored as zero. All patients were assessed with the hospital anxiety depression questionnaire.² Relations between symptoms and the psychological assessment were examined with χ^2 tests. A severity score (the sum of all the scores for a particular symptom divided by the number of

patients with the symptom) was computed to allow a comparison of the relative severity of each symptom but was not formally analysed.

Forty four patients rated a non-colonic symptom as being the worst, constant lethargy, nausea, backache, and excess wind being particularly prominent; this was reflected by their severity score (table). Some non-colonic symptoms—for example, early satiety—although common were not ranked as particularly severe. Fifty three patients had evidence of anxiety or depression, or both. Patients with psychological symptoms tended to report more symptoms than those without, but the ranking patterns were not significantly different in the two groups.

Comment

This study confirmed the high prevalence of non-colonic symptoms in the irritable bowel syndrome and indicated that some of these can be as intrusive as the classic symptoms of abdominal pain, distension, and abnormal bowel habit. It might be argued that these findings are due to our having studied an excess of patients with psychological problems, but the prevalence of such patients in this study (53%) is in accord with previous reports.³ In addition, the ranking pattern was unaffected by the presence of psychological problems. Patients with the irritable bowel syndrome tend to be regarded as complainers. This view is not supported by our observation that the control symptom, dry skin, received by far the lowest ranking and was the least common complaint.

Some symptoms were equally common but differed considerably in their intrusiveness. Those perceived as severe may lead to inappropriate investigation. Common but less severe symptoms, such as early satiety, may be useful in discriminating the irritable bowel syndrome from other gastrointestinal disorders, and this is currently under investigation. Therapeutic trials in the irritable bowel syndrome often produce conflicting data,⁴ possibly because investigators fail to record non-colonic symptoms. This may also explain why overall improvement without a change in the recorded symptoms is sometimes observed.⁵ Patients will probably cope with these disruptive symptoms better if they are reassured that they are part of their syndrome and do not have a more sinister cause.

- 1 Whorwell PJ, McCallum M, Creed FH, Roberts CT. Non-colonic features of irritable bowel syndrome. *Gut* 1986;27:37-40.
- 2 Zigmund AS, Snaith RP. The hospital anxiety and depression scale. *Acta Psych Scand* 1983;67:361-70.
- 3 Creed FH, Guthrie E. Psychological factors in the irritable bowel syndrome. *Gut* 1987;28:1307-18.
- 4 Klein KB. Controlled treatment trials in the irritable bowel syndrome: a critique. *Gastroenterology* 1988;95:232-41.
- 5 Prior A, Whorwell PJ. Double blind study of ispagula in irritable bowel syndrome. *Gut* 1987;28:1510-3.

(Accepted 1 August 1989)

Ranking of symptoms by 100 patients with irritable bowel syndrome

Symptom	No with symptom	No (%) of patients with each symptom ranking it as:					Severity score
		Worst (95% confidence interval (%))	2nd Worst	3rd Worst	Not ranked		
Abdominal pain	100	30 (30) (21 to 40)	21 (21)	13 (13)	15 (15)		3.80
Abdominal distension	100	6 (6) (2 to 13)	15 (15)	17 (17)	14 (14)		2.82
Abnormal bowel habit	100	20 (20) (13 to 29)	19 (19)	18 (18)	16 (16)		3.34
Constant lethargy	96	14 (15) (8 to 23)	15 (16)	11 (11)	15 (16)		2.99
Backache	75	6 (8) (3 to 17)	7 (9)	10 (13)	24 (32)		2.29
Early satiety	73	1 (1) (0.03 to 7)	1 (1)	1 (1)	56 (77)		0.55
Excess wind	66	8 (12) (5 to 22)	9 (14)	11 (17)	16 (24)		2.67
Nausea	62	6 (10) (4 to 20)	4 (6)	10 (16)	23 (37)		2.16
Headache	61	2 (3) (0.4 to 11)	1 (2)	0	28 (46)		1.39
Urinary problems	56	2 (4) (0.4 to 12)	2 (4)	4 (7)	33 (59)		1.23
Heartburn or dyspepsia	51	1 (2) (0.05 to 10)	4 (8)	2 (4)	32 (63)		1.18
Dry skin	28	0 (0 to 12)	0	0	24 (86)		0.25
Other symptoms†	20	4 (20) (6 to 44)	2 (10)	2 (10)	10 (50)		2.30

*Percentage calculated only from number of patients with that symptom.

†Defined as thigh pain (five patients), bad breath (five), dizzy spells (five), generalised aches (four), and rectal dissatisfaction (one).