Detection, treatment, and follow up of women requesting termination of pregnancy

Comment

Most of the women seeking abortions in the practices were healthy and remained so afterwards. The most common complication was infection of the upper genital tract in five women. Two women presented with a severe, acute illness within 48 hours of termination, and *C trachomatis* was implicated in both. The results of bacteriological studies of both women before termination showed no other organisms such as *Mycoplasma hominis* or anaerobes, which are commonly associated with infection after an abortion.¹ Ensuring that the women were free of chlamydial infection before the operation would have avoided complications afterwards.

Women living in inner cities who seek an abortion are at high risk of infection with chlamydia. As clinical

features are unreliable in identifying women at risk, we conclude that all of these women should be tested and treated before operation and that tests should be repeated before termination if results are initially unsatisfactory.

- 1 Duthrie SJ, Hobson D, Tait IA, *et al*. Morbidity after termination of pregnancy in first trimester. *Genitourin Med* 1987;63:182-7.
- 2 Barbacci M. Post abortal endometritis and the isolation of Chlamydia trachomatis. *Obstet Gynecol* 1986;68:686-8.
- 3 Heisterberg L, Hebjorn S, Andersen LF, Petersen H. Sequelae of induced first-trimester abortion. *Am J Obstet Gynecol* 1986;155:76-9.
- 4 McGregor JA. Prophylactic antibiotics unjustified for unselected abortion patients. *Am J Obstet Gynecol* 1985;152:722-3.
- 5 Longhurst HJ, Flower N, Thomas BJ, *et al*. A simple method for the detection of Chlamydia trachomatis infections in general practice. *J R Coll Gen Pract* 1987;37:255-6.

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Acute renal failure after infusion of gelatins

S F Hussain, P J T Drew

Wrexham Maelor Hospital,
Wrexham, Clwyd LL13
7TD
S F Hussain, MRCP, medical
registrar
P J T Drew, MD, consultant
physician

Correspondence to: Dr
Drew.

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Gelatin solutions are widely used as plasma substitutes. Although most gelatins are excreted by the kidneys, studies have suggested that they are not nephrotoxic.¹ Gelofusine (Consolidated Chemicals, Wrexham) is a commercial preparation of gelatins of varying molecular weights. We report a case in which infusion of Gelofusine was implicated in the development of permanent renal failure.

Case report

A 67 year old man underwent aortobifemoral grafting for severe atheromatous disease of the iliac vessels. Before operation analysis of urine yielded normal results and serum urea, electrolyte, and albumin concentrations were normal. He received alfentanil and thiopentone as anaesthetic agents and atracurium for muscle relaxation, and his blood pressure was well maintained throughout the operation. Blood loss was minimal, but urine output fell during the operation. To maintain a slightly raised central venous pressure he was given a total of three units of blood and two litres of Gelofusine during the 48 hours after induction of anaesthesia as well as mannitol (330 ml), frusemide (20 mg four times daily), and infusion of dopamine at a low dose.

Despite these measures he developed oliguric renal failure: daily urine output in the first three days after the operation was 1307 ml, 960 ml, and 315 ml

respectively. Plasma creatinine concentrations had risen to 550 µmol/l by the third postoperative day; at this stage his serum albumin concentration had fallen to 16 g/l, although plasma oncotic pressure was within the normal range. Microscopic examination of urine showed broad granular casts typical of acute tubular necrosis. He received haemodialysis for six weeks but failed to have a diuresis. An arteriogram showed that the renal arteries were widely patent, and renal biopsy showed normal glomeruli but severe tubular damage. Two years later he was receiving continuous ambulatory peritoneal dialysis.

Comment

This patient's acute renal failure developed after an operation on the aorta, infusion of Gelofusine, and considerable changes in the serum albumin concentration. We cannot exclude the possibility that the renal failure was secondary to a transient reduction in renal perfusion pressure; indeed, this may be the explanation for the fall in urine output during the operation that led to the infusion of the Gelofusine. Nevertheless, the changes in the serum albumin concentration despite a normal plasma oncotic pressure suggest that Gelofusine accumulated in this patient and that it is potentially nephrotoxic.

There are many similarities between Gelofusine and the dextran solutions, which are well recognised causes of renal failure.² Both types of solutions are made up of molecules of varying sizes that are largely filtered by the kidneys and will precipitate when concentrated, and both solutions are hyperoncotic compared with plasma. The nephrotoxicity of dextran solutions probably depends on the presence of additional factors such as reduced renal perfusion pressure and diminished rates of urine flow, both of which favour the

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.

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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.

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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.

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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).