in psychopathology, which worsened after a three-day washout period and became similar to that seen before metoclopramide treatment.

The patient was then treated with the classical neuroleptic haloperidol. At a dose of 45 mg/day the same extrapyramidal syndrome re-emerged and was completely responsive to trihexyphenidyl 2 mg by mouth three times daily. After haloperidol dosage was increased to 100 mg/day the tremor emerged in a milder form. Psychopathology at this dosage was partially improved, but some disorganisation of thought, delusions, and hallucinations persisted. His state at this time (10th day of haloperidol treatment) was comparable to that noted after metoclopramide 1 g/day.

Comment

The syndrome that this patient developed on sodium valproate was clinically indistinguishable from one shown by the same patient after treatment with the classical neuroleptic agent haloperidol and the dopamine antagonist metoclopramide, though it differed in its clinical response to antimuscarinic agents. These agents failed to affect the syndrome when it occurred after sodium valproate, although they effectively suppressed the identical extrapyramidal signs when they occurred after haloperidol and metoclopramide.

The precise mechanisms underlying this differential responsiveness are not clear. Our observations may, however, be consistent with a report by Gerlach, who noted a clinical exacerbation of extrapyramidal symptoms after treatment with baclofen.³

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³ Gerlach, J, *American Journal of Psychiatry*, 1977, **134**, 781.

⁴ Gibson, A C, *British Journal of Psychiatry*, 1978, **133**, 82.

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veins, 36 had post-thrombotic changes, and 36 had a recent thrombosis. The patients' responses are shown in the table: 74% answered the questionnaire. Immediately after the examination patients reported pain in 68% of the legs examined with meglumine iohalamate and in 15% examined with metrizamide. One week later patients reported pain in half of the legs examined with meglumine iohalamate and in 9.6% examined with metrizamide. The quality of the venographs was judged better on the metrizamide side in 45, better on the meglumine iohalamate side in 2, and the same in 35. Comparison was not possible in 18 because of considerably different pathology.

Comment

In most cases patients complained of more pain in the leg examined by venography using the conventional ionic medium than in that examined with metrizamide, both immediately after the examination and in the week after. The patients when receiving metrizamide experienced less generalised hot flushing, nausea, and vomiting; and there was less swelling of the foot or calf in the legs examined with metrizamide. The quality of the venographs was slightly better with metrizamide.

Patients are thus likely to experience much less discomfort if metrizamide rather than conventional ionic medium is used for ascending venography. But metrizamide costs about forty times as much as the conventional medium, and, as none of the patients examined using the conventional medium experienced intolerable discomfort, we do not recommend the routine use of metrizamide. But it might be used in some patients: those needing sequential venography; those with major veno-occlusive disease, in whom pain is often more severe; and those with a low pain threshold. We also hope that non-ionic contrast media may become more competitively priced.

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Metrizamide in venography

Despite the introduction of non-invasive techniques for investigating venous diseases of the legs, venography is still commonly used as it is diagnostically more accurate.¹ Serious complications of venography are rare but as many as 59% of patients experience pain.² Metrizamide is known to cause less pain than conventional contrast media when given as an intra-arterial injection.³ We have compared metrizamide with a conventional ionic contrast medium for use in ascending venography of the legs in a prospective study.

Patients, methods, and results

A total of 100 patients with suspected and known venous disease of the legs were investigated by our standard method of ascending venography.⁴ The patients had one leg examined using 50 ml of meglumine iohalamate (280 mg of iodine/ml, Conray 280) and the other using 50 ml of metrizamide with the same iodine content. The patients and one of the examining radiologists did not know which leg was injected with which medium. Patients were questioned immediately after the examination and sent a questionnaire one week later. The quality of the films obtained from each leg was compared by an independent radiologist.

Of the 200 legs examined, 88 were normal, 40 had incompetent perforating

Humidifier fever in an operating theatre

Humidifier fever, an immunological reaction to the inhalation of allergens from a contaminated humidifier, presents as a transient, influenza-like illness usually occurring on the first day back to work after a break. It has been termed "Monday sickness."¹ Outbreaks have been described in industry, and we present a preliminary report on its occurrence in a hospital operating theatre.

Patients, methods, and results

Index case. Four to six weeks after starting work in the recovery room of an operating theatre a nursing sister noticed feverish episodes (38°C) with shivering, myalgia, a tight chest, and headache. They occurred in the evening of the first day back at work each week and would subside by the next day except for the expectoration of white phlegm for 24 hours. When first seen she was recovering from acute bronchitis (*Haemophilus parainfluenzae*) and taking a course of ampicillin. Physical examination and chest x-ray picture were normal, white cell count (WBC) $8.4 \times 10^9/l$ (8400/mm³) with 70% neutrophils and no eosinophils. Erythrocyte sedimentation

Immediate and delayed effects of venography of the legs using meglumine iohalamate or metrizamide

	Contrast media	No of legs examined	Pain in foot only	Pain in calf only	Pain in foot and calf	Generalised hot flushing	Nausea or vomiting or both	Swelling of foot	Swelling of calf
Immediate effects	Meglumine iohalamate	100	25	11	32	16	9		
	Metrizamide	100	9	2	4	7	3		
Delayed effects	Meglumine iohalamate	74	13	9	15			19	
	Metrizamide	74	1	5	1			6	9