Dextran 70 is widely used as a plasma expander for patients in circulatory collapse, a condition which could mask a superimposed anaphylactic shock or make physical signs difficult to interpret. If the administration of intravenous dextran leads to a further drop in blood pressure in a patient in collapse, increasing the rate of infusion may have disastrous effects.

It therefore seems advisable to avoid using dextran 70 in patients with a history of allergy or bronchial asthma. A doctor should be present during the first 200 ml of a dextran 70 infusion, and if an untoward reaction appears dextran should be discontinued. A separate infusion of saline should be running simultaneously at a speed determined by the degree of shock. For the first 15 minutes the dextran infusion should be at the rate of 10 drops/min, and cardio-respiratory resuscitation drugs, equipment, and personnel should be immediately available.

We are greatly indebted to Mr S Bender for his guidance in reporting the above cases.

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Heart block in mianserin hydrochloride overdose

So far there have been no published reports on the effects of mianserin hydrochloride on the conducting tissue of the heart in man, although animal experiments have indicated that it has few if any cardiotoxic effects.[1] This is believed to be the first documented case of heart block occurring after mianserin hydrochloride overdosage.

Case report

A 39-year-old woman was admitted to hospital on 6 January 1977, three hours after taking 58 10-mg tablets of mianserin hydrochloride (Bolvidon, Organon), seven 5-mg diazepam tablets, and six 5-mg nitrazepam tablets. She induced vomiting soon after taking the tablets, and gastric lavage was carried out on admission.

She was drowsy and complained of a dry mouth. Blood pressure was 115/95 mm Hg and pulse rate 90 beats/min. The electrocardiogram (ECG) on admission showed first-degree heart block (P-R interval 0·28 seconds). Serial ECG tracings showed that she remained in first-degree block until 14 hours after ingesting the tablets. For the next two hours the block was variable, and by 16 hours after ingestion she had spontaneously reverted to normal rhythm (P-R interval = 0·18 seconds). An ECG recorded a year previously at a routine outpatient visit was normal.

Blood was removed at intervals for drug estimation by Organon Laboratories Ltd, and the results are shown in the table. The peak serum concentration was four times the therapeutically desirable level.

Serum concentrations of mianserin hydrochloride

Hours after ingesting tablets:	3½	9	21	27
Serum mianserin hydrochloride (μg/l) ..	439	157	86	70

Peak level during normal treatment with 20 mg thrice daily is 100–120 μg/l.

Comment

The cardiotoxic effects of tricyclic antidepressants in cases of self-poisoning have been well documented,[2] and even therapeutic doses of these drugs affect intracardiac conduction.[3] Recently new antidepressants with a tetracyclic structure have been marketed, which are claimed to have no cardiotoxic effects at normal doses. Animal studies have shown that effects are dose related and that a proportionately higher dose of mianserin hydrochloride is required to cause arrhythmias than with tricyclic antidepressants.

In our patient the effect on the conducting tissue of the heart seemed to be dose related, in that conduction returned to normal when the blood concentrations descended to the therapeutic range. Only the P-R interval was abnormal in this patient. The QRS and S-T complexes and Q-T interval were normal.

This drug is claimed to have no adverse cardiac effects, but this case suggests that, in common with tricyclic antidepressants, mianserin hydrochloride in very high doses can interfere with intracardiac conduction.

We thank Organon Laboratories Ltd for kindly undertaking the serum determinations.

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SHORT REPORTS

The Sparks mandril in femoropopliteal bypass

Autogenous long saphenous vein is undoubtedly the most suitable material for femoropopliteal bypass in patients with limb-threatening ischaemia.[1] Unfortunately, in an appreciable number of patients the vein is absent (as a result of previous surgery) or unsuitable,[1] and cloth prostheses below the inguinal ligament, which give generally poorer results, have to be used.[2] The Sparks mandril graft aims to obviate these problems by producing an autogenous, Dacron-supported tube, of suitable dimensions, which can be grown in situ. Initial clinical results were published in 1972[3] and were sufficiently encouraging for the technique to be cautiously adopted in Nottingham. We describe here our experience with 10 patients.

Patients, methods, and results

The series consisted of seven men and three women aged 44 to 70 years (mean 60 years). Two patients were diabetic, five were hypertensive, and all were heavy smokers. Ischaemic ulceration had occurred in seven patients, and the remaining three were severely incapacitated by claudication. Seven failed arterial reconstructions and three failed sympathectomies had previously been performed, and as no patients had a suitable ipsilateral saphenous vein (five had been used for bypass, four were too small, and one had been removed because of varicosity) femoropopliteal bypass was achieved using the Sparks mandril graft.[3]

At the time of writing only two grafts remained patent, after up to two years' follow-up (see table). One of the patent grafts was aneurysmal. No other graft remained patent for more than six months, and four patients had to undergo major amputation. The remaining four patients were severely disabled by claudication or ischaemic ulceration. Other complications apart from graft occlusion and aneurysm formation have occurred. One graft was insufficiently mature for use at six weeks, although maturation was satisfactory at 12 weeks. Both early failures (in cases 4 and 5) followed reoperation for reactionary haemorrhage, probably resulting from fraying of the graft at the proximal anastomosis. One of these grafts was removed two months after operation following a secondary haemorrhage. Infection was not otherwise encountered.

Outcome of Sparks mandril graft

Case No	Age (yrs)	Preoperative ulceration	Fate of graft	Present state of limb
1	63	Yes	Thrombosed at 3 months	Severe claudication
2	44	No	Thrombosed at 4 months	Healed above-knee amputation
3	65	No	Patent at 18 months but aneurysmal	Satisfactory
4	59	Yes	Thrombosed at 24 hours	Healed Gritti-Stokes amputation
5	70	Yes	Thrombosed at 24 hours	Healed Gritti-Stokes amputation
6	59	Yes	Patent at 16 months	Satisfactory
7	50	No	Thrombosed at 4 months	Severe claudication
8	63	Yes	Thrombosed at 6 months	Recurrent ulceration
9	61	Yes	Thrombosed at 2 months	Claudication
10	64	Yes	Thrombosed at 1 month	Healed below-knee amputation

Comment

This series is small but the results correspond with those of the only other reported series.[4 5] There can be little doubt that the Sparks mandril compares unfavourably with more conventional materials, although it must be remembered that seven of our patients were threatened by amputation and that a completely satisfactory alternative reconstruction was not available. Nevertheless, it is difficult to escape the conclusion that the thrombogenicity and lack of inherent strength of the mandril make it unsuitable for use in the femoropopliteal segment and that some of our patients might have been better served by earlier amputation.

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Two congenital neurological abnormalities caused by thalidomide

Thalidomide (alpha-phthalimidoglutarimide) is a known teratogen. Ingestion of the drug during early pregnancy led to a variety of congenital abnormalities, especially limb deformities, defects of the external ears and duodenal atresia. Though it was stated that the central nervous system was not affected,[1-3] more recent reports suggest this is not so.[4 5] We describe a girl with two congenital neurological abnormalities presumably due to thalidomide.

Case report

A 14-year-old girl presented with lacrimation from the right eye while eating and a lateral gaze palsy. She had had a normal birth and at routine neonatal examination was found to have bilateral hypoplastic thumbs. Her mother had taken thalidomide regularly during the first trimester for night sedation. At the age of 2 the child had been admitted to hospital for operation on her thumbs. The admission notes state that she had "abnormal eyes." Nevertheless, the abnormal eye movements had been noticed by her mother only for about four years before the present admission. She had not complained of any difficulty in moving her eyes, and had obviously learned to compensate by head movements. The lacrimation from the right eye had first been noticed by her mother after she had been weaned on to solid food.

She had a horizontal gaze palsy to both sides, an amblyopic right eye with gross visual impairment, a minimal right-sided ptosis, production of tears from the right eye during eating, and bilateral hypoplastic thumbs. The results of extensive investigations were all normal. *X*-ray films of the hands showed abnormalities of the scaphoid, trapezium, trapezoid, and the first metacarpal bone of both hands. They also showed abnormal articulation of the metacarpophalangeal joint of the left thumb. A cervical spine *x*-ray film showed fusion of the second and third cervical vertebrae. Electronystagmography showed no movements of the eyes in a horizontal direction, but vertical movements were within normal limits.

Comment

Cranial nerve palsies have been reported as a thalidomide effect, but these were attributed to osseus changes within the bony foramina or canals through which the nerves passed.[1-3] Recent reports have shown a high incidence of cranial nerve abnormalities, abnormal tear production and epilepsy, attributed directly to thalidomide.[4 5] In our patient the gaze palsy cannot be explained by the entrapment theory, but must be due to a more central lesion in or around the sixth nerve nucleus. The abnormal right-sided lacrimation could also be explained by a midbrain lesion. The association of rudimentary thumbs, two neurological lesions, and the history of ingestion of thalidomide is further evidence that thalidomide can cause congenital neurological defects.

We thank Dr R G Lascelles for his advice and criticism.

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Return to normal of Argyll-Robertson pupils after treatment

Argyll-Robertson pupils—that is, pupils which do not react to light but do to accommodation—are often associated with neurosyphilis, but sometimes occur as an isolated finding without the disease. Nevertheless, it is essential that a complete physical, neurological (including examination of the spinal fluid), and serological examination should be carried out. I report here a case of Argyll-Robertson pupils in a man with syphilis, which returned to normal after treatment.

Case report

A 46-year-old homosexual man gave a history of a rectal infection in 1973 which was treated with 3·75 megaunits of penicillin, a dose which would almost certainly have arrested any incubating syphilis. Serological tests at the start of treatment for gonorrhoea were negative for syphilis and remained so during his three-monthly follow-up. He was referred by his general practitioner to the special clinic in February 1977 with a three-week history of