

abandoned after a short trial owing to the time-consuming nature of the shunt procedure, as well as the emotional problems associated with patients under these conditions. General anaesthesia was then offered as the only alternative. As is well known, there are many problems which confront the anaesthetist involved in these cases, not least of which must be mentioned the possibilities of anaemia, metabolic acidosis, and electrolyte imbalance, especially involving serum potassium levels. To complicate the issue further these patients tend to vomit, and have an unstable response to variations in circulating fluid volume.

At the Royal Free Hospital shunts are inserted using local analgesia at the site of insertion, with the occasional demand for general anaesthesia in certain patients. In view of the problems just mentioned, for the last six months we have used dehydrobenzperidine (Droperidol) combined with local infiltration of lignocaine at the shunt site as a preferable alternative to general anaesthesia. The advantages of this scheme are that it calms very apprehensive introspective patients; it has minimal effects on blood pressure; patients are co-operative; and their reflexes remain fully active. The anti-emetic effect of this drug is a considerable advantage, and its length of time of action (8-12 hours) ensures adequate operating conditions for what is often a lengthy procedure. Early discharge from hospital is possible.

Initially these patients are given 5-10 mg. dehydrobenzperidine orally one to two hours before the procedure, and a further dose of 5 mg. is repeated intravenously in theatre if required. Local infiltration of 2% lignocaine without adrenaline at the shunt site is then performed. This procedure has given such satisfactory results that it is now used routinely for the insertion of all shunts in this hospital.—I am, etc.,

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#### REFERENCE

- <sup>1</sup> Royal Society of Medicine, Meeting 5 April 1968, unpublished.

### Monoamine Oxidase Inhibitors

SIR,—Your article on monoamine oxidase inhibitors (*Today's Drugs*, 6 April, p. 35) particularly stresses the interaction with other drugs and foods. However, it appears that patients are still not sufficiently warned about these dangers, nor of the importance of telling other doctors that they are taking monoamine oxidase inhibitor drugs.

An apparently intelligent woman was recently admitted to this unit for a varicose-vein operation. She told the house-surgeon that she was on pills for her irregular periods, which he initially assumed to be a hormone preparation, but, on further questioning the evening before operation, she admitted they were called Nardil (phenelzine). She had not told the ward sister that she should not be given cheese or Marmite for her meals, although she said her general practitioner had told her about this. She denied, however, being warned that there was a danger in having an anaesthetic or other drugs, and she had been given phenelzine while on the waiting-list for operation.

We have had another similar case in the last few months. Surely the practice of giving the patient precise instructions and a

card to carry should by now be universal, as with anticoagulants and steroids?—I am, etc.,

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SIR,—I should like to comment on your recent article on monoamine oxidase inhibitors (6 April, p. 35). Some drugs and foodstuffs which may lead to hypertensive crises when given to patients receiving monoamine oxidase inhibitors are listed in the article. There is reason to believe that in these circumstances other more readily available sympathomimetic amines may cause a similar marked rise of blood pressure. This possibility was suggested by the work of Ellis and others<sup>1</sup> on the amine phenylephrine which is normally inactivated by monoamine oxidase present in the walls of the intestine. A marked and rapid rise of blood pressure occurred when subjects taking monoamine oxidase inhibitors were given phenylephrine by mouth.

Phenylpropanolamine is another sympathomimetic amine, related to ephedrine, which is a constituent of a number of proprietary preparations for the relief of cough and symptoms of the common cold. Observations on healthy volunteers in this department have shown that 50 mg. of phenylpropanolamine hydrochloride produces little change in the blood pressure when given orally, either in a gelatin capsule or in a slow-release form combined with an atropine-like compound (Procol capsules). These findings are in agreement with those of Mitchell.<sup>2</sup>

In a subject (resting blood pressure 120/80) receiving the monoamine oxidase inhibitor tranylcypromine (Parnate) 30 mg. daily a substantial rise of blood pressure did occur when one capsule of Procol or phenylpropanolamine alone was taken orally. The blood pressure rose to 150-160 mm. Hg systolic, 95-100 diastolic, 90 minutes after taking one capsule of Procol (phenylpropanolamine hydrochloride 50 mg. and isopropamide 2.5 mg. in a slow-release form) and remained at this level for approximately two hours before returning towards normal. However, when the subject took 50 mg. phenylpropanolamine hydrochloride orally in a gelatin capsule and on another occasion the same dose contained in a proprietary cough linctus there was a dramatic and progressive rise of blood pressure which reached a level of 200-210 mm. Hg systolic, 130-140 diastolic, two hours after ingestion. In the last two of these three experiments on the same subject it was necessary to reduce the blood pressure to normal levels by the intramuscular injection of 5 mg. phentolamine hydrochloride.

While it is not clear whether acute hypertensive reactions were responsible for the symptoms which occurred with the taking of Procol capsules by the two patients on monoamine oxidase inhibitors reported by Tonks and Lloyd,<sup>3</sup> it does appear that in the presence of these drugs the pressor effect of phenylpropanolamine can be potentiated to a marked and potentially dangerous degree.—I am, etc.,

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London E.1.

#### REFERENCES

- <sup>1</sup> Ellis, J., Laurence, D. R., Mattie, H., and Prichard, B. N. C., *Brit. med. J.*, 1967, 2, 75.  
<sup>2</sup> Mitchell, C. A., *Curr. Ther. Res.*, 1968, 10, 47.  
<sup>3</sup> Tonks, C. M., and Lloyd, A. T., *Brit. med. J.*, 1965, 1, 589.

### Suicide in Pregnancy

SIR,—With reference to Dr. Michael F. Burke's letter (6 April, p. 49), an article by Muller and Graham<sup>1</sup> is of interest. These authors traced from the literature eight infants born alive following serious maternal carbon-monoxide poisoning at various stages of pregnancy between the second month and term. All infants suffered from serious psychomotor defects, and most exhibited more than one defect. These included five cases of spasticity, one of athetosis, two of hydrocephaly, one microcephaly, one case of softening of the basal ganglia, one mongol, and two with absent cry and sucking reflex, etc.

It is debatable whether these foetal defects result from carbon-monoxide poisoning of the foetus or the severe foetal anoxia resulting from the maternal poisoning.—I am, etc.,

London W.1.

H. E. REISS.

#### REFERENCE

- <sup>1</sup> Muller, G. L., and Graham, S., *New Engl. J. Med.*, 1955, 252, 1075.

### Heart Transplant Publicity

SIR,—Everybody will congratulate the team who carried out the so far successful heart transplantation at the National Heart Hospital.

But why is such blatant publicity considered necessary? It cannot be to advertise the well-known surgeons; that would be quite unethical. It cannot be to advertise the hospital, which is well known. It cannot be to obtain donors. It may be necessary for South Africa to boost its surgical skill, but surely British surgery does not require a boost. Every week hundreds of life-saving operations are performed in this country without mention in the press. I much regret this, to me undignified, publicity.—I am, etc.,

Oxford.

MALCOLM DONALDSON.

SIR,—It is interesting to compare the rather disturbing publicity accorded to Britain's first heart transplant operation with the sober treatment of another great occasion in the history of medicine 122 years earlier.

Four days after the event the *Daily News* (25 December 1846), one of the few papers to comment at all, announced: "We have been informed that two operations without pain were performed by Mr. Liston at University College Hospital on Saturday last while the patients were under the stupefying influence of the vapour of ether."

A somewhat striking contrast to recent events.—I am, etc.,

London W.1.

MASSEY DAWKINS.

### Ethchlorvynol Withdrawal Symptoms

SIR,—This report illustrates symptoms which followed the abrupt withdrawal of ethchlorvynol. This drug, which was introduced in North America in 1955, is a halogenated acetylenic carbinol whose anti-convulsant properties were originally discussed by P'an et al.<sup>1</sup>

A man aged 67 was admitted to the Royal Infirmary, Sheffield, on 3 November 1967 for