

taken by most people completely in the dark. If it turns out that the general practitioner and his or her patient dislike and distrust each other it is not only unpleasant; it is potentially dangerous for both. Is there a remedy? I believe that there is.

Patients should be encouraged before signing on with a new general practitioner to make an appointment so that they can interview their prospective family doctor. A few people do so already and I understand that a few practices encourage it. But it should, on the initiatives of general practitioners all over the country, become a common, recognised, and acceptable habit. It is not, of course, a guarantee of mutual satisfaction. But experience suggests that a short social interview (including a discussion of the patient's medical history) can often allow patient and general practitioner to decide whether they are temperamentally compatible. It is, for instance, better on the whole for a person who is a vegetarian member of an antiblood sports organisation not to choose a hunting and shooting general practitioner. At least, both should be aware of their differences before the card is signed, and both should have the good sense to say if it comes to it, "I don't think you are the right person for me." Such a system should be combined with changes which make it as easy as possible for patients to change to another practice or to another partner within a group practice without being made to feel that they will be labelled as being awkward. Many people must have had a similar experience to that of the paediatric registrar. Such experiences are disagreeable for everyone, and they do no good to the reputation of general practice.

IRVINE LOUDON

Wantage, Oxfordshire OX12 9EH

1 Anonymous. Finding a doctor: too much of a lottery. *Br Med J* 1989;298:466. (18 February.)

Rediscovering monoamine oxidase inhibitors

SIR,—As anaesthetists, we read the editorial by Drs Christopher Bass and Robert Kerwin with interest.¹ The return of these drugs has important implications for our specialty because they "enjoy an infamous reputation for interactions with anaesthesia."² Standard anaesthetic practice, as advocated by major textbooks, is to stop treatment three weeks before elective procedures.³ This approach may be overcautious, since careful anaesthesia in the absence of drugs known to cause problems—for example, ephedrine,⁴ pethidine,⁵ and ketamine⁶—is reported to be safe.^{6,7} Also, non-hydrazine drugs, such as pargyline and tranlycypromine, inhibit monoamine oxidases for only 24 hours, and withholding the drug on the day of surgery should be adequate. Hydrazine derivatives, such as phenelzine, irreversibly bind monoamine oxidases and are therefore active for two to three weeks.⁷

It remains vital for anaesthetists to know whether patients are taking these drugs. Those who prescribe them must ensure that their patients inform future anaesthetists. Until the situation becomes clearer, both patient and psychiatrist must accept perioperative interruptions in treatment. If short acting monoamine oxidase inhibitors are prescribed these interruptions need only be brief.

A J COE
S LAURENT

Anaesthetic Department,
Royal United Hospitals, Bath

- 1 Bass C, Kerwin R. Rediscovering monoamine oxidase inhibitors. *Br Med J* 1988;298:345-6. (11 February.)
- 2 Hutton P, Cooper G. *Guidelines in clinical anaesthesia*. Oxford: Blackwell Scientific, 1985:338-9.
- 3 Calvey TN, Williams NE. *Principles and practice of pharmacology for anaesthetists*. Oxford: Blackwell Scientific, 1982:89.

- 4 Hirsch MS, Walton RM, Hasterlin KJ. Subarachnoid hemorrhage following ephedrine and monoamine oxidase inhibitors. *JAMA* 1965;194:1259.
- 5 Palmer J. Potentiation of pethidine. *Br Med J* 1960;iii:944.
- 6 Michaels I, Serrins M, Shier N, Barash P. Anaesthesia for cardiac surgery in patients taking monoamine oxidase inhibitors. *Anes Analg* 1984;63:1041-4.
- 7 El-Ganzouri AR, Ivankovich AD, Braverman B, McCarthy R. Monoamine oxidase inhibitors: should they be discontinued preoperatively? *Anes Analg* 1985;64:592-6.

SIR,—Drs Christopher Bass and Robert Kerwin describe the increasing use of monoamine oxidase inhibitors and mention the interaction with tyramine in various foods.¹ This interaction is well known and taught to every medical student. The interaction with opioids, particularly pethidine, is, however, less widely known but may be fatal; headache, hypertension, hyperpyrexia, convulsions, and coma may result.²

An elderly patient, who was taking tranlycypromine, presented for surgery with a fractured neck of femur. She had been given 50 mg pethidine in the casualty department and a further 75 mg in the ward two hours later. According to her observation chart, her blood pressure had increased from 150/90 mm Hg to 180/100 mm Hg and her pulse rate from 80 beats/min to 100 beats/min shortly after the second dose. When assessed some two hours later she did not have any features of central nervous stimulation and her blood pressure and pulse were no longer raised. Although this response may have been due to pain at the time of the second dose, it may also have represented an excitatory interaction. In any event, neither of the two house officers who prescribed pethidine was aware of the interaction between pethidine and monoamine oxidase inhibitors despite one of them having looked in the *British National Formulary* (the interaction is mentioned but in small print, dwarfed by a warning about cheese, pickles and meat extract³).

This interaction is widely taught to anaesthetists during their training, and yet in my experience surgical house officers, who may often use pethidine, have rarely heard of it. Surely it is more important than avoidance of cheese?

S M YENTIS

Department of Anaesthesia,
St Mary's Hospital,
London W2 1NY

- 1 Bass C, Kerwin R. Rediscovering monoamine oxidase inhibitors. *Br Med J* 1989;298:345-6. (11 February.)
- 2 Stack CG, Rogers P, Linter SPK. Monoamine oxidase inhibitors and anaesthesia. *Br J Anaesth* 1988;60:222-7.
- 3 Joint Formulary Committee. *British National Formulary*. No 16. London: British Medical Association/Royal Pharmaceutical Society of Great Britain, 1988:159.

Radiotherapy's second setback

SIR,—I have been following the debate about the proposed installation of a high energy neutron therapy facility at St Thomas's Hospital, London.¹

In North America there is currently little interest in neutron therapy. Indeed, funding for neutron therapy in the United States has steadily declined in the past 10 years. Three centres—in Houston, Los Angeles, and Seattle—are now funded by the National Cancer Institute (United States) to conduct further randomised trials. The Fermilab neutron facility also continues to treat electively a few patients each year. Two other clinics, in Philadelphia and Cleveland, have closed their neutron programmes.

There is no general acceptance in the United States or Canada that fast neutron therapy has an established place in cancer treatment. The results of the randomised studies now in progress in the United States are awaited. Recruitment of patients has, however, been slow. Two of the six controlled

studies started in 1985 have been closed because of poor recruitment. The institute has therefore decided that from September this year funding will be provided only for patients entered into controlled trials; general funding for the cyclotron facilities will slowly be withdrawn. These are the recommendations of the commission chaired by Dr W Hendee to which Dr Thelma Bates referred.² No priority has been given to neutron therapy other than the completion of randomised clinical trials.

It is agreed that for most patients with cancer neutron therapy offers no advantage. Some patients may be better treated with neutrons, but they have not been clearly identified. It is claimed that tumours arising in the salivary glands may respond better to neutrons if they are unsuitable for surgery. The evidence is largely anecdotal. The Radiation Therapy Oncology Group-Medical Research Council trial had to be closed because of poor recruitment, and the results on only 25 patients (13 receiving neutron therapy and 12 photon therapy) have been reported.³ Clearly, no definite conclusion can be reached from a trial of this size. It has also been claimed in the United States that patients with locally advanced prostatic cancer have better local control of the primary tumour and improved survival when treated with neutrons⁴; the randomised trial that gave rise to this view had many imperfections. It is also interesting that the Radiation Therapy Oncology Group in their subsequent trial do not use the neutron treatment regimen that it had claimed was superior to treatment with x rays. That decision does not indicate that they are convinced of a major therapeutic breakthrough.

It has also been suggested that bone and soft tissue sarcomas, if they are unresectable, may be better treated with neutrons, but no controlled trial has been completed. In case reports a high normal tissue morbidity has commonly been observed, particularly when the treated tumours were situated in the arms or legs⁵; increased efficacy has not been shown.

The incidence of serious late normal tissue complications after neutron therapy has for many years been a cause of concern and is well documented. The high morbidity has been suggested, without good foundation, to be associated with the use of low energy neutron beams. It was hoped that high energy neutron beams would avoid the unacceptably high morbidity reported earlier. The high energy cyclotron facility at Fermilab has, however, now reported very high rates of morbidity, which increase with the time interval after treatment. The cumulative serious late morbidity was over 50%.⁶ The principle of good radiotherapy practice requires that good rates of control of cancer are obtained without high morbidity associated with radiation. An important advantage of megavoltage x ray treatment is the excellent cosmetic and functional results that can regularly be achieved.

Neutron therapy remains an experimental treatment modality. It has not been shown to be more effective than or as safe as other methods of treatment. In North America there is little enthusiasm for neutron therapy (witness poor recruitment to trials) and considerable doubt exists whether it will ever have a proved role in modern radiotherapeutics.

W DUNCAN

Department of Radiation Oncology,
Ontario Cancer Institute,
Princess Margaret Hospital,
Toronto, Canada

- 1 Errington RD, Catterall M, Blake P, Harkness W, Constantine G, Durrant K. Radiotherapy's second setback. *Br Med J* 1989;298:383-4. (11 February.)
- 2 Bates T. Radiotherapy's second setback. *Br Med J* 1989;298:183-4.
- 3 Griffin TW, Pajak TF, Laramore GE, et al. Neutron vs photon irradiation of inoperable salivary gland tumors: results of