(2 to 9 mm. Hg) in eight cases, was unchanged in three, and fell slightly in one case. Sharp rises culminated twice in death and once in deep coma. In six patients the level appeared to stabilize at plateau levels of 60, 70, or 75 mm. Hg, and this proved a relatively benign phenomenon, for five of them survived to show a prompt fall when oxygen was stopped. The carbon dioxide rise bore little relation to the initial level. The two patients who died in acute hypercapnoea following 28% oxygen had original levels of only 45 and 47.5 mm. Hg respectively. Another patient's carbon dioxide rose from 40 to 47 mm. Hg on metered oxygen.

Attempts to forecast these effects were made in 19 cases, but failed. Blood gases estimated just before, and repeated after 10 minutes on, 28% oxygen showed an average about half of the ultimate oxygen rise (that is, 25% of the increase in inspired oxygen tension), but with great individual variations; virtually none of the carbon dioxide rise was at this stage demonstrable. After 24 hours, effects were usually clear, but by then the good or harm had been done.

The effects of intramuscular cropropamide were monitored in 10 cases. Two patients achieved oxygen rise with fall in carbon dioxide, both effects exceeding 10 mm. Hg. The others, despite clinical improvement, showed no definite change in blood gases. The unreliability of this treatment is disappointing, for a moderate oxygen rise is far more valuable if the carbon dioxide falls. Voluntary overbreathing improved both blood gases, but the effect was transient. Recovery clinically was sometimes surprisingly good, but the blood gases seldom became normal. Exercise tests demonstrated that many chronically underventilated patients increase ventilation on exercise, but small variable changes, often within limits of random error, were difficult to interpret.

It is easy to demonstrate serious hypoxaemia or underventilation; but clearly, at critical levels, small differences are prognostically important. Comparison of successive readings requires less absolute accuracy, but even greater consistency is needed. In both situations, differences of 10 mm. Hg have been found important, and 5 mm. Hg differences significant; provided technical error can be excluded. This means working closely to the best possible technical standards.[1] Fortunately, when in doubt, ear lobe samples are easily repeated.—I am, etc.,

G. DALAWELL WALKER.
Newsham General Hospital,
Liverpool.

REFERENCE

[1] Flenley, D. C., Millar, J. S., and Rees, H. A., *Brit. med. J.*, 1967, 2, 349.

Intermittent Claudication

SIR,—Your article in the Medicine Today series (7 December, p. 630) on intermittent claudication makes no mention of the prognostic and therapeutic value of paravertebral lumbar sympathetic block.

I work in a pain clinic which has over the past twenty years injected many patients suffering from intermittent claudication. Repeated paravertebral injections with local anaesthetic will sometimes result in a threefold increase in exercise tolerance. Most of these patients are referred back to the surgeon for lumbar sympathectomy. Patients unsuitable for surgery have either a series of injections, or a chemical sympathectomy.

Chemical sympathectomy using up to 15 ml. of 6% aqueous phenol will make some patients free from pain for many months.—I am, etc.,

M. D. CHURCHER.
Plymouth, Devon.

Postoperative Anaesthesia of the Chin

SIR,—A small number of patients who have undergone oral surgical operations under general anaesthesia complain postoperatively of numbness over the lower central area of the chin and the upper anterior part of the neck. The affected region involves a narrow strip of skin extending for about 1 in. (2.5 cm.) on either side of the midline, but, though the mental nerve territory is overlapped, neither anaesthesia nor paraesthesia of the lower lip is present. The disability is of short duration, and recovery usually occurs within two to three weeks. It is obvious from the local cutaneous distribution that the complication cannot be attributed to impairment of sensory function in the mental nerves, and the probable cause is a neuropraxia of the upper branch (C.2) of the anterior cutaneous nerve of the neck. It is inconceivable that interruption of the main trunk of this nerve occurs, otherwise the diminution or loss in sensation would encompass a very elongated area reaching as far inferiorly as the sternal notch.

The theory that the numbness might result from fingertip pressure over the implicated cutaneous nerve can be discounted in the cases seen. This complication is probably caused by excessive, and prolonged extension of the patient's neck in an attempt by the anaesthetist to facilitate or improve surgical access to the palate. While it lasts the sensory disturbance seems to cause little inconvenience to the affected person, but it would seem reasonable to avoid undue neck extension in the elderly and in individuals known to have cervical spondylosis.—We are, etc.,

H. C. KILLEY.
L. W. KAY.
Eastman Dental Hospital,
London W.C.1.

SHEILA MILLAR-DANKS.
National Temperance Hospital,
London N.W.1.

Solvents for Ear Wax

SIR,—I wish to take issue with Dr. J. I. Horowitz on the subject matter of his letter (30 November, p. 583). The results of a controlled clinical trial shortly to be published on my behalf show that in clinical practice Xerumenex ear drops fulfil all the modest claims made by the manufacturers. Initially, my in vitro experiments showed that recently removed cerumen was liquefied by Xerumenex overnight. This in vitro activity was fully substantiated in the controlled clinical trial which followed. In this trial 24 patients had the ceruminolytic instilled in their ears, and 21 acted as controls. Each patient was then required to remove their excessive cerumen with self-syringing of water from a rat-tailed 2 oz. (57 ml.) rubber syringe, a procedure which was unpractised and unfamiliar to all of them. The results are shown in the Table.

Treatment	Water Syringing and Xerumenex	Water Syringing alone
Number of patients from whom cerumen was completely cleared ..	18	1
Number of patients from whom cerumen was not cleared or only partially cleared..	6	20
Totals	24	21

In the words of the clinical investigator "the difference is highly significant" ($P<0.005$). I noticed that two of the eardrops mentioned contained exactly the same active agent—namely, dioctyl sodium sulphosuccinate—but had widely varying in vitro activities. Was the cerumen not of a homogeneous nature? It would seem necessary to emphasize the necessity for controlled clinical evaluations to determine the effectiveness of any human therapy. Nevertheless, I would agree with Dr. Horowitz that olive oil and other oily preparations are useless. Further, they have no sound pharmacobiochemical basis of activity to support their usage.—I am, etc.,

PERCY G. HARRIS.
Belfast,
Northern Ireland.

Examination Methods

SIR,—In your report on the Royal College of General Practitioners' Conference on Examination Methods (23 November, p. 510) I have been slightly misquoted. It is true that I did say in effect that the only satisfactory forms of multiple-choice question are those in which a single correct answer is chosen from two or more possible answers. Taken out of context, however, as in your report, this reads like a sweeping criticism of the type of question introduced originally into Part I of the London M.R.C.P. examination,[1] in which the number of right answers is not specified. I would like to make it clear that I said at the conference, and still say, that the current popularity of this question form is well deserved, for it has considerable virtues, though, of course, the older one-from-five question has also some advantages—one may need to use both. My criticisms of the M.R.C.P.-type question relate only to the method of marking originally used, which is unnecessarily complicated and logically defective[2-4]; these criticisms can readily be answered either by treating each question as a group of true–false questions,[2] which the candidate can leave blank if he does not know the answer, or (less completely but still adequately) by the Middlesex group's method.[3] In any case, the current system, despite its defects, works well enough in practice—I am, etc,

BERNARD LENNOX.
Pathology Department,
Western Infirmary,
Glasgow W.1.

REFERENCES

[1] Owen, S. G., Robson, M. G., Sanderson, P. H., Smart, G. A., and Stokes, J. F., *Lancet*, 1967, 2, 1034.
[2] Lennox, B., *Brit. J. med. Educ.*, 1967, 1, 203.
[3] Harris, F. T. C., and Buckley-Sharp, M. D., *Lancet*, 1968, 1, 980.
[4] Husak, T., *Lancet*, 1968, 1, 859.