has been found to be compressed particularly in pronation and extension by the fascial edge of either the supinator or extensor carpi radialis brevis. Simple division of these structures anterior to the nerve is sufficient.

Your article also mentions that the lateral popliteal nerve is vulnerable to trauma at the neck of the fibula. Although there may be controversy over "the site of entrapment in unexplained palsies" we believe there is a relationship at times when the patients benefit from the small operation of decompression of the lateral popliteal nerve where it enters the leg under a fascial arch of peroneus longus.²

While we share your view that caution should be exercised on making too wide a claim for nerve entrapment we do believe this should be looked for particularly in unresolved clinical entities since the operation is frequently small and may be regarded as a therapeutic test and attended by significant relief of disability.—We are, etc.,

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- 1 Roles, N. C., and Maudsley, R. H., *Journal of Bone and Joint Surgery*, 1972, **54B**, 499 (awaiting publication).
- 2 Maudsley, R. H., *Journal of Bone and Joint Surgery*, 1967, **49B**, 384.

Excretion of Methoxyflurane Metabolites

SIR,—There have been a number of reports since 1964 associating methoxyflurane anaesthesia with renal dysfunction, manifested by postoperative diuresis, azotemia, and oxalosis.^{1,2} At least two of the possible metabolites of methoxyflurane are known to be nephrotoxic—namely fluoride and oxalate,^{3,4} and increased excretion of both these ions has been observed following the administration of relatively large amounts of methoxyflurane.⁵ The nephrotoxic effects appear to be dose-related, but significant increases in serum and urine fluoride levels and in urine oxalate levels have been reported even at low dose levels.⁶

We have confirmed in studies on obstetric patients that appreciable increases in fluoride and oxalate excretion may occur after minimal methoxyflurane administration. Observations were made on seven pregnant women who underwent caesarian section and

who received 0.1% methoxyflurane given for 10–20 minutes as a supplement to nitrous oxide/oxygen/relaxant anaesthesia. Twenty-four hour urine samples were collected on two successive days before the operation and on day 1, 2, 3, 4, and 7 after operation.

Fluoride was measured as free fluoride ion by means of an Orion fluoride electrode (Orion Research Inc., Cambridge, Mass) and oxalate by a colorimetric method.⁷ The results (Fig.) show that the concentration of fluoride in the urine increased from 10 to 20 times on the day after operation, falling to 5 to 10 times normal on the second day after operation, and to normal levels on the third to seventh day. Oxalic acid excretion increased from two to three times in three patients, and was unchanged in the remaining four cases.

The raised concentration of fluoride in the urine corresponded to that observed in mild fluorosis, while the increased oxalate output was sufficient to raise the calcium activity product above the formation product—that is, the point above which spontaneous nucleation of calcium oxalate crystals can occur.

Since oxalate and fluoride are rapidly excreted in the urine⁸ it is probable that the urinary concentration of these ions was considerably higher in the first few hours after operation than is indicated by the 24-hour values. These raised urine levels imply raised levels in the mother's blood and possibly also in the fetus, but these aspects were not investigated.

These findings in no way contradict the statements made by Drs. M. J. Cousins and R. I. Mazze (25 March, p. 807), but do reveal that even with very low inspired concentrations of methoxyflurane, administered for very short periods, it is possible to obtain high urine levels of fluoride.

Our clinical experience has not revealed overt renal dysfunction, but, in the light of the knowledge that nephrotoxicity is related to blood (and therefore to urine) concentrations of the ion, it must be appreciated that even in these low-concentration situations it is easily possible to surpass what appear to be toxicity-related levels of fluoride. In addition one must bear in mind that in a proportion of patients critical levels of oxaluria may be obtained under the same circumstances.

Finally, these are matters of maternal inquiry, and the effects on the fetus and the neonate of these metabolites of methoxy-

flurane have not as yet been assessed.—We are, etc.,

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- 1 Paddock, R. B., Parker, J. W., and Guadagni, N. P., *Anesthesiology*, 1964, **25**, 707.
- 2 Aufderheide, A. C., *Archives of Pathology*, 1971, **92**, 162.
- 3 Mazze, R. I., Trudell, J. R., and Cousins, M. J., *Anesthesiology*, 1971, **35**, 247.
- 4 Frascino, J. A., O'Flaherty, J., Olmo, C., and Rivera, S., *Journal of Laboratory and Clinical Medicine*, 1972, **79**, 192.
- 5 Taves, D. R., Fry, B. W., Freeman, R. B., and Gillies, A. J., *Journal of the American Medical Association*, 1970, **214**, 91.
- 6 Cousins, M. J., Nishimura, T. G., and Mazze, R. I., *Proceedings of the American Society of Anesthesiologists*, 1971, 157.
- 7 Hodgkinson, A., and Williams, A., *Clinica Chimica Acta*, 1972, **36**, 127.
- 8 Zaremski, P. M., and Hodgkinson, A., *Clinica*

New Thoughts on Essential Hypertension

SIR,—We feel that your leading article (15 April, p. 121) on the relationship between vascular disease and high arterial pressure creates a rather misleading impression. It states uncritically that renin can cause vascular damage and quotes in support of this statement a study¹ which is not about vascular damage at all, but an account of the relationship between renin, angiotensin, and aldosterone secretion in experimental hypertension.

The administration of renin or renal extracts to experimental animals may indeed result in vascular damage, particularly if the animals have been previously nephrectomized. The vessels affected are the arterioles and the lesions are similar to those seen in acute experimental hypertension.² Byrom³ and Giese,⁴ who have performed careful studies in this field, support the view that the vascular damage seen in this experimental situation is a function of the rise in arterial pressure.

In our work at the Radcliffe Infirmary⁵ we have shown that abnormal permeability of arterioles resulting from angiotensin, noradrenaline, and renal extract administration is a result of vascular damage caused by an intolerable rise in arterial pressure acting on the mechanically weak muscular arterioles. We do not feel that there is convincing evidence that renin causes vascular damage or altered permeability by some direct action on the vessel wall.

Brunner *et al.*,⁶ whom you quote in your leading article, used the incidence of myocardial infarction and strokes in hypertensive patients to support their hypothesis that renin causes vascular damage by an effect independent of arterial pressure. Their thesis that renin may be an aetiological factor in the causation of myocardial infarction and strokes rests solely on the evidence of their own study. This may be criticized on the following grounds. (1) One diastolic blood pressure with standard deviations is given for each group. Arterial pressure is variable and single pressure readings are notoriously misleading. (2) No mention is made of systolic blood pressure. How did the three groups differ in respect of this value? (3) No mention is made of the possibility that racial or social factors may have influenced the incidence of vascular disease.

Twenty-four hour urine fluoride concentration and oxalic acid excretion in seven women undergoing caesarian section with light methoxyflurane anaesthesia. Arrow indicates operation. The dotted lines denote upper limits of normal.

(4) The composition of the control group is not given. What this careful study of plasma renin activity and aldosterone excretion does show again is that patients in an accelerated or malignant phase of hypertension tend to have higher renin levels, as the high renin group included patients with high pressures, retinal exudates, and renal failure.

All the controlled trials demonstrating the efficacy of blood pressure reduction in lowering the incidence of strokes and hypertensive heart failure have included diuretic therapy. We think it unwise to suggest on the evidence presented by Brunner *et al.* that hypertensive patients with low renin levels should be denied the undoubted benefits of such therapy because of its effects on renin levels. For the moment, the level

of arterial pressure and the clinical evidence of its effects must remain the most important factors in determining whether or not a patient should be treated.—We are, etc.,

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- 1 Carpenter, C. C. J., Davis, J. O., and Ayers, C. R., *Journal of Clinical Investigation*, 1961, **40**, 2026.
- 2 Asscher, A. W., and Anson, S. G., *Nature*, 1963, **198**, 1097.
- 3 Byrom, F. B., *The Hypertensive Vascular Crisis*. London, Heinemann, 1969.
- 4 Giese, J., *Acta pathologica et microbiologica Scandinavica*, 1964, **62**, 497.
- 5 Goldby, F. S., and Beilin, L. J., *Cardiovascular Research*, 1972, in press.
- 6 Brunner, H. R., *et al.*, *New England Journal of Medicine*, 1972, **286**, 441.

the R.C.P. Report (available from the R.C.P. price 15p) and those of the J.C.H.M.T. (as soon as they are known). This is most important because after three or four years as a senior registrar they could find themselves in a job which does not qualify for G.M.C. accreditation or registration. This applies equally to general medicine or specialist senior registrar appointments.—I am, etc.,

I. J. T. DAVIES

Member of the Royal College of Physicians
Committee to review Hospital Junior Training Posts

University Hospital of Wales,
Cardiff

1 Royal College of Physicians, *Report on Training for Consultants*. London, 1971.

2 Royal Commission on Medical Education, *Report*, Cmd. 3569, London, H.M.S.O., 1958.

Widows' Pensions

SIR,—For at least seven years before I retired from hospital practice in 1968 I was endeavouring through the Consultants and Specialist's Committee to have the widow's pension for consultants raised from one third to half of her husband's pension.

I now read in the Joint Superannuation Consultant Committee Report (*Supplement*, 29 April, p. 40) that the widow's pension in respect of future service will be raised from one third to half of her husband's pension entitlement. Why in respect of future service? Surely all future widows should be entitled to this benefit particularly since the pension itself compares very unfavourably with that granted to men in comparable walks of life.—I am, etc.,

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Sir Paul Chambers's Inquiry

SIR,—We, the undersigned secretaries of local medical committees, have met and considered the proposals made in Sir Paul Chambers's Report (*Supplement*, 6 May, p. 45). We fully realize that these proposals are designed to strengthen the organization of the B.M.A. and to fit it to act more effectively for all sections of the profession after 1974. Our concern is that in this re-organization, a mechanism of representation that serves the general practitioners well shall not be lightly discarded.

The report describes the local medical committees as "governmental advisory bodies, whose expenses are paid out of a levy collected by the executive council (an official body) from all doctors in the area." No inference should be drawn from this that they are in any way governmentally controlled bodies. They are committees democratically elected through an electoral process of their own devising by all the practising family doctors in their area. Official bodies are statutorily required to consult the local medical committees, but the advice they receive is given solely in the interest of the local practitioners, to whom, and to whom alone, the committees remain responsible. In their turn the local medical committees play their considerable part in the election of the General Medical Services Committee. It is true that these electoral processes can result in the presence on both committees of members who are not members of the B.M.A., but experience does not suggest this weakens the effectiveness of the committees; indeed it can enhance their efficacy and influence.

What also must not be forgotten is that the G.M.S. Committee is not solely, nor even primarily, a standing committee of the B.M.A. It owes its existence to the fact that it is the executive of the Conference of local medical committees; it owes its strength to the loyal support it receives from the local medical committees and to the very considerable financial contributions made to the G.M.S. Committee's trust funds which it receives from the voluntary subscriptions of constituents of the local medical committees, many of whom are not members of the B.M.A. The trustees of these funds are the members for the time being of the G.M.S. Committee, but they are answerable for their stewardship directly to the Conference, and not to the Council of the B.M.A. nor to the Representative Body. The G.M.S.

Committee has traditionally provided the negotiators for general practice, and through the acceptance of its role as a standing committee of the Association has been accountable to the Council and to the Representative Body. This has allowed an interweaving of membership and has done much through the years to keep parallel Conference and Representative Body policy.

We agree with the report that discussions in the local medical committees and in the G.M.S. Committee are well informed. We believe that these bodies have effectively served, and are effectively serving, the general practitioners; we see no proof that the general practitioners would be better served by the replacement of these committees as proposed in the report.—We are, etc.,

A. TALBOT ROGERS

South-east London and Kent

DENIS R. COOK

Inner London

G. BARWELL

Middlesex

ROBERT V. GOODLIFFE

South-west London and Surrey

R. G. TROUP

North-east London

Local Medical Committees

Training for Consultants

SIR,—The Royal College of Physicians' Report on Training for Consultants¹ was first published eight years ago in 1964 and was revised in 1971. In general the report recommends four years' specialist training following three years' general training—these recommendations are similar to those of the Todd report.² The Joint Committee on Higher Medical Training (J.C.H.M.T.) is drawing up further recommendations with regard to consultant training. The recommendations of the J.C.H.M.T. are anticipated this autumn although drafts of the recommendations will be circulated in advance to postgraduate deans. Within the next few years some form of specialist registration or accreditation will be set up by or for the General Medical Council (although it has been decided definitely that there will be no formal examination at the end of specialist training).

From now on candidates for senior registrar posts in medicine would be well advised to ensure that the posts for which they apply fulfil the recommendations of

Points from Letters

Doctors and Population

DR. THERESA LAZAR (Birmingham) writes: I was deeply shocked to see a leading article (12 February, p. 391) list "adequate provision for abortion" quite casually as one of the various desirable ways of population control. This is in sharp contrast with the views of a large proportion of our profession, who look upon the killing of the unborn child with revulsion, and would only recommend or undertake it where there are grave medical indications.

Intravenous Fluorouracil and Tachycardia

DR. M. E. CARPENTER (Aldershot, Hants) writes: In the course of receiving repeated injections of intravenous fluorouracil, a woman patient aged 62 years, with secondary disease due to breast carcinoma, experienced symptoms due to tachycardia about an hour after each injection. I have found that this symptom has been prevented by her taking 200 mg of quinidine sulphate orally immediately before each injection. I have not used any other drug, such as propranolol, as the quinidine has appeared to be so effective. . . .

The Paediatrician and the Future

DR. JOHN DUGUID (Wallasey, Ches) writes: Your leading article on paediatricians and the future (29 April, p. 243) should take cognizance of the following figures published in *Health Trends* last May: S.H.O. total 157, born in U.K. 68; registrar total 373, born in U.K. 213. If this trend continues and the promotion ladder is progressively blocked, by the end of the century most of our consultant paediatricians will be foreigners mainly from India and Pakistan. . . .