data). Under these circumstances the usual effects of noradrenaline, causing marked reductions in heart rate and cardiac output, do not occur. Thus atropine, alone or after beta-blockers, can raise blood pressure and heart rate while maintaining cardiac output.

From these observations therefore we would endorse the use of atropine in doses of at least 3 mg as bolus injections. Furthermore, as an alternative to isoprenaline in patients still hypotensive we would recommend graded infusions of noradrenaline to restore blood pressure provided atropine has been given previously. Under these circumstances heart rate and cardiac output are likely to be satisfactorily maintained and blood pressure restored.

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¹ Richards, D A, Dobbs, J, and Prichard, B N C, *British Journal of Clinical Pharmacology*, 1978, **5**, 357P.

² Jose, A D, *American Journal of Cardiology*, 1966, **18**, 476.

³ Chamberlain, D A, Turner, P, and Sneddon, J M, *Lancet*, 1976, **2**, 12.

Facet joints and low back pain

SIR,—My orthopaedic colleagues and I have been investigating this problem for several years and would strongly endorse the views of Mr J A Robertson and Mr A H G Murley (13 May, p 1283). However, we do not agree with the negative approach of "organised neglect." Conservative measures such as those outlined are always instituted in the first instance, but a significant number of patients are severely disabled by continuing pain. For these we recommend a facet arthrogram,¹ and, if local anaesthesia of the appropriate dorsal primary rami relieves the symptoms, proceed to rhizotomy with a radio frequency probe based on the work of Shealey.² Dr M E Sluijter, of Amsterdam, and I have simplified this technique and performed it safely in over 200 cases in both the lumbar and cervical regions. Our results will be published shortly on completion of a survey one year after these procedures were undertaken.

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¹ Mehta, M, *Intractable Pain*, p 242. London and Toronto, Saunders, 1973.

² Shealey, G N, *Journal of Neurosurgery*, 1975, **63**, 448.

Methods of endometrial assessment

SIR,—I was very interested to read the article by Mr J D Hutton and others on "Endometrial assessment with Isaacs cell sampler (15 April, p 947). I was, however, disappointed to see that the authors made an unfavourable comparison with the diagnostic potential of the Vabra curettage method based on, I suspect, non-comparable parameters.

In their discussion the authors state that "diagnosis of endometrial state was possible in 91% of our patients compared with 77% of similar age assessed by Vabra curettage," giving a reference to a clinical study by Whitehead *et al*¹ which is "in press." This particular article can therefore not be commented on, but as all but one² of the clinical articles on Vabra curettage (about 50 in all)

are based on *histological* diagnosis, everything points towards the likelihood that the 77% in the study cited was similarly based on histological diagnosis. This figure, in fact, corresponds very well to the results obtained from patients aged over 40 years by other authors. Thus Holt,³ for example, was able to make a histological endometrial diagnosis in 80.1% of his patients. It is therefore probable that the authors, using the Isaacs cell sampler, were comparing a 91% satisfactory cytological diagnosis with a 77% histological diagnosis. This, for obvious reasons, is not a valid comparison.

It should be noted that the Vabra method may in fact also be used for cytological examination of the endometrium. Jensen² found that if a histological examination was not possible owing to inadequate aspirate (as, for example, in postmenopausal patients) a cytological examination was possible in 100% of cases using the Vabra curettage method.

It is clearly important not only to distinguish between various endometrial biopsy methods but also to relate them to their specific diagnostic applications.

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¹ Whitehead, M I, and Campbell, S, in *Proceedings of the Second International Meeting on Endometrial Cancer and Related Topics*, ed R W Taylor, M Brush, and R J King. London, Bailliere, Tindall and Cassell, in press.

² Jensen, J G, and Jensen, F, *Danish Medical Bulletin*, 1973, **20**, 123.

³ Holt, E M, *Journal of Obstetrics and Gynaecology of the British Commonwealth*, 1970, **77**, 1043.

Diet and asthma

SIR,—I should like to modify the impressions created by your leading article on this subject (18 March, p 669)—namely, that food allergy is rare except when caused by chemicals and dyes and that it does not merit the clinician's careful attention. You also suggest that only 15% of asthmatic children show positive reactions to skin tests.

The punch-card records of 170 unselected children with bronchial asthma under 15 years of age seen by myself were examined. Of these, 147 (86.5%) showed positive skin responses to prick tests with common allergens. Twenty-one children (12.3%) were thought at the first interview to suffer from clinically relevant food allergies. Of this group only six gave positive skin tests to foods, although 18 had the usual positive skin-test responses to inhalant allergens manifested by atopy. On the other hand in the original group of 170 children 22 (15%) gave positive skin-test responses to foods at the initial interview but were thought not to be suffering from clinical food allergy. Of a similar random group of 250 asthmatic adults 204 (81.6%) had positive prick tests to common inhalant allergens. Forty adults (16%) were at initial interview thought to be clinically food sensitive, but only nine of these (3.6% of the total sample) had positive skin tests to foods. On the other hand 43 patients (17.2%) had positive prick tests to food without any obvious history of food allergy.

The conclusion to be drawn from the above figures is that, as in all areas of medicine, the history is paramount and it behoves us well to listen to what the patient or his relatives may tell us. Often young children

are aware that foodstuffs can produce adverse effects which their parents have ignored; on the other hand even adults may not realise that some of their symptoms, whether commonplace or bizarre, may be caused by foods. Although diagnostic diets may be dull and inconvenient, they are well worth the time and effort spent on them, as they serve to reveal unsuspected food allergies in some patients but convince others that their dietary phobias are unfounded.

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SIR,—Your leading article on diet and asthma (18 March, p 669) rightly draws attention to Freedman's important work on hypersensitivity to food additives in orange drinks as a cause of asthma.¹ Unfortunately you have embellished this report with an introductory paragraph and end piece which are misleading and were not part of Freedman's original publication. Freedman carried out experimental provocation of asthmatics without the use of a placebo. Detection of the ensuing bronchospasm by spirometry (in which a 12% reduction of FEV₁ at any time up to 30 min after challenge was accepted as a positive response) does not increase the objectivity of the results, which depend on conscious effort by the patient. Indeed, since tartrazine and sodium benzoate were given in three incremental doses at 40-min intervals a 12% reduction at any time in two hours would have been accepted as a positive response. Fortunately, two-thirds of the responses observed by Freedman were considerably greater than the minimum accepted.

Since you accept the validity of Freedman's work, why do you dismiss the importance of allergy to foods themselves? The innumerable publications on food allergy include many in which the methods of investigation were at least as valid as those used in Freedman's trial. Even the methodology of sublingual testing as usually practised is scarcely less objective.²

I fear that it is conformity to established medical thought which has caused you to believe work on an acceptable topic but uncritically to reject equally laudable work which current medical religion regards as heresy.

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¹ Freedman, B J, *Clinical Allergy*, 1977, **7**, 407.

² MacKarness, R, *Not All in the Mind*. London, Pan Books, 1976.

Treating pressure sores

SIR,—In your leading article (13 May, p 1232) while reviewing the different methods of treatment of pressure sores, you make no mention of Op-site dressing (a polyurethane sheet coated with low-allergy surgical adhesive). In our geriatric research unit we have treated over 40 cases with superficial sores in the past 18 months with over 90% success. The method we use is to clean the sore with half-strength physiological saline and cover it with Op-site dressing, which is changed weekly. Sores so treated heal within two weeks compared with three weeks for controls.

As you rightly point out, 70-90% of