and polyradiculitis, whereas aseptic meningitis has invariably had a benign course. Thus vigorous treatment is needed in cases of encephalitis and polyradiculitis, and, as shown by the present case and that described by Dr Cotter and others, plasma exchange may be the method of choice.

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¹ Noah ND. *Mycoplasma pneumoniae* infection in the United Kingdom 1963-73. *Br Med J* 1974;ii:544-6.

² Pönkä A. Central nervous system manifestations associated with serologically verified *Mycoplasma pneumoniae* infection. *Scand J Infect Dis* 1980;12:175-84.

³ Pönkä A, Pönkä T, Sarna S, Penttinen K. Questionable specificity of *Mycoplasma pneumoniae* complement fixation test in patients with extra-pulmonary manifestations. *J Infection* 1981;3:332-8.

Failure patterns after total hip arthroplasty

SIR,—Mr John E Nixon's suggestion (15 January, p 166) that trochanteric osteotomy increases blood loss and operative time is unfounded¹; it does, however, avoid complications associated with inadequate exposure. A review from this unit showed that out of 14 672 Charnley low friction arthroplasties dislocation occurred in 92 and only 16 required revision.² It is heartening to report that of nearly 18 000 operations performed since November 1962 only 730 had to be revised—a revision rate of just over 4% over 20 years. With improvements in the design and technique, introduced as a result of long term studies, the revision rate should be reduced still further.

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¹ Del Sel H, Brittain G, Wroblewski BM. Blood loss and operation time in the Charnley low friction arthroplasty. *Acta Orthop Scand* 1981;52:197-200.

² Fraser GA, Wroblewski BM. Revision of the Charnley low friction arthroplasty for recurrent or irreducible dislocation. *J Bone Joint Surg* 1981;63B:552-5.

SIR,—Mr J E Nixon (15 January, p 166) mentions thromboembolism as the most serious medical postoperative complication. There is increasing evidence that the type of anaesthetic used for hip surgery may contribute to the incidence of postoperative thromboembolism.

In a comparative study of spinal and general anaesthesia for surgical correction of fractured neck of femur McLaren *et al*¹ showed a 31% postoperative mortality after four weeks in the general anaesthesia group compared with 3.6% in the spinal group. The causes of death were usually pulmonary embolism or bronchopneumonia.

The incidence of thromboembolism after major hip surgery has been studied by Modig (European Society of Regional Anaesthesia, Edinburgh, September 1982. Abstracts p 42-3). Patients requiring total hip replacement were randomly allocated to receive either epidural or general anaesthesia. The epidural was prolonged for 24 hours to provide initial postoperative analgesia. Patients in the general anaesthesia group received on demand narcotics for pain relief. No prophylactic anticoagulants were given. The incidence of deep

vein thrombosis in calf and thigh veins was studied by phlebography, and the incidence of pulmonary embolism was determined by pulmonary perfusion lung scanning. In the general anaesthetic group 77% of the patients had deep vein thromboses and 33% pulmonary embolism. In the epidural group 40% had deep vein thrombosis and 10% pulmonary embolism. The differences were significant. In addition, the general anaesthetic group had much larger deep vein thromboses.

Further studies are urgently needed to ascertain whether the continued use of general anaesthesia for major hip surgery can be justified.

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¹ McLaren AD, Stockwell MC, Reid VT. Anaesthetic techniques for surgical correction of fractured neck of femur. A comparative study of spinal and general anaesthesia in the elderly. *Anaesthesia* 1978;33:10-4.

SIR,—Mr John E Nixon (15 January, p 166) assumes that total hip replacements will for the next 10 or 15 years involve the acceptance of acrylic cement by living tissue.

Since 1975, however, European surgeons have been using a "cementless" total hip replacement, and Professor G A Lord in Paris has experience of some 1200 cases (paper presented to the American Orthopaedic Association, Boston, 1981). Similar work in North America was delayed by strictures of the Food and Drug Administration, but the Madroporique (a name derived from the French for coral) system has been used by Dr D Ellis at Nanaimo, western Canada. Early results have been reported in the UK.¹ Although the long term failure rate of this method is unknown, it will obviously be unrelated to cement acceptance.

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¹ Kaye G. The cementless total hip arthroplasty. *Physiotherapy* 1982;68:394-8.

Reduced sinus arrhythmia in diabetic autonomic neuropathy

SIR,—Age is an important determinant of the magnitude of respiratory sinus arrhythmia.¹ In her study on reduced sinus arrhythmia in diabetic autonomic neuropathy Dr S A Smith (4 December, p 1599) reports on the arrhythmia assessed from one deep breath² rather than that based on the average of six consecutive breaths.¹

We measured the magnitude of the inspiration-expiration difference¹ in 43 diabetic patients at 9 and 11 am on the same morning. We calculated the inspiration-expiration difference of one² and six consecutive respiratory¹ cycles (see table). The inspiration-

expiration differences of one and six cycles were almost identical both at 9 and 11 am. The coefficient of variation of one cycle, however, was much higher than the coefficient of variation of six cycles. We also reanalysed the normal range in 133 healthy subjects previously studied by us.¹ We found a much wider scatter of values for the inspiration-expiration difference based on one instead of the average of six cycles.

We suggest, therefore, that the average of six and not one cycle should be used in screening for vagal neuropathy in diabetic patients. There is much to be learnt about factors that influence the tests measuring vagal control of heart rate not related to damage of autonomic nerves.³ Hence we propose that a combination of tests is used to establish vagal neuropathy in diabetic patients.¹

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¹ Wieling W, Brederode JFM van, Rijk LG de, Borst C, Dunning AJ. Reflex control of heart rate in normal subjects in relation to age: a data base for cardiac vagal neuropathy. *Diabetologia* 1982;22:163-6.

² Bennett T, Farquhar IK, Hosking DJ, Hampton JR. Assessment of methods for investigating autonomic nervous control of the heart in patients with diabetes mellitus. *Diabetes* 1978;27:1167-74.

³ Borst C, Wieling W, Brederode JFM van, Hond A, Rijk LG de, Dunning AJ. Mechanism of initial heart rate response to postural change. *Am J Physiol* 1982;243:H676-81.

New thoughts for the Health Education Council

SIR,—I am assured and would in any case have expected that you practise responsible journalism, and I find much in the leading article on the Health Education Council (18 December, p 1761) that indicates your concern for the health of the nation. You choose smoking and alcohol abuse as your targets, to which nearly everyone interested in health education would give top priority. You point to the obvious allies for the council—the health professionals and the politicians. You urge us to court and use the media. If you had had the privilege, as I have, to be part of the council's work for nearly five years you would know that practically everything you urge is a matter for daily concern and action at the council's headquarters.

What disappoints, indeed depresses, me most about your article is that it illustrates a very superficial knowledge of the council's work, its objectives, and how it tries to reach them. It is unjust to make such sweeping judgments when you do not appear to have informed yourself. Even a cursory reading of the council's annual reports and a glance at a booklet on the council's programmes of work would have widened your knowledge.

I could give a tediously long list of the council's endeavours and achievements in the

Inspiration-expiration differences of one and six respiratory cycles

	9 am	11 am	p	Coefficient of variation
Resting heart rate	78 (55-95)	73 (57-82)	p < 0.001	—
Inspiration-expiration differences (average six cycles)	20 (2-48)	20 (1-44)	NS	9 %
Inspiration-expiration difference (one cycle)	22 (1-54)	21 (1-49)	NS	19 %

Results (in beats/min) expressed as median with range in parentheses.