The total of nine cases during the four months October-January is equivalent to an annual incidence of 27 cases per year, or 4-9 times the incidence before the long hot summer of 1976. It indicates that there exists a higher level of poliomyelitis virus in the population than formerly, and as almost all those paralysed were unvaccinated we feel that more cases are likely to occur.

It seems to us important that an attempt should be made to reach the 15-20% or more of the population which is said not to receive poliovaccine nowadays, a group which may be increased by the current adverse publicity incurred by other vaccines.

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Backache

SIR,—I must respectfully disagree with some of the views expressed by Dr John Mathews (12 February, p 432). General practitioners and hospital doctors in training, for whom presumably this series of articles is designed, will have been misled by some of the statements and omissions.

I wish there could have been more emphasis placed on the commonest form of backache—namely, postural or occupational—and on the fact that less than 10% of backache results from disc prolapse. In my experience these patients usually complain that their backache is worse with rest and eased by exercise. My own backache, for example, responds to vigorous spinal exercises, especially flexion, and is much worse in the recumbent position. Many of these patients, myself included, respond well to rotary manipulation. Generally speaking, it is this type of backache that the osteopath treats so well, but unfortunately they tell their patients that they are replacing their “slipped discs.” Anyone who has observed a protruding or prolapsed disc at the time of surgery will know that such statements are nonsense.

It is unfortunate that these patients are often kept off work for long periods and are told to go to bed. In fact this is the worst possible treatment for them. Almost as bad is to give them a surgical corset. The only useful purpose for this over-used appliance is in elderly patients; it is occasionally useful as a temporary measure in patients with spondylosis or spondylolisthesis, an important mechanical problem not mentioned in the article. In all other circumstances the corset simply helps to keep the back warm, considerably weakens the back and abdominal musculature, and assists the neurotic man when he has to explain to his wife or employer that he cannot do certain jobs because “I have a bad back.”

No mention was made of the common condition of low lumbar instability secondary to previous disc derangement. It is also a pity that weight reduction was not mentioned as an essential part of treatment whatever the cause.

I submit that in an article of this type controversial treatments of unproven value and not without risk—namely, chemonucleolysis and sclerosants—should not have been mentioned. Instead it would have been more useful to extend the section on the forgotten art of history taking.

Finally, sir, may I plead that the totally meaningless neologism “osteoarthrosis”

(dreamed up by rheumatologists, I believe) should be dropped from the medical literature.

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SIR,—I was pleased to find that Dr John A Mathews (12 February, p 432) gives due importance to the apophyseal joints as a source of backache. He rightly says that it is not easy to distinguish an apophyseal joint lesion from a minor disc lesion, but his predecessor at St Thomas's (Dr J Cyriax) dismissed the apophyseal joints as unimportant and an insignificant cause of back pain. Manipulation when properly applied is an effective measure in many cases of back pain, and, while it is possible that manipulation can have a reducing effect on a small disc herniation, the explanation that is much more likely is that manipulation releases fixation in an apophyseal joint.

If a disc protrusion is ever reduced by manipulation it would inevitably be reproduced as soon as weight-bearing took place again by the sheer mechanics of compression, whereas an apophyseal joint lesion corrected by manipulation would not be so reproduced; and as so many patients obtain immediate and lasting benefit from a simple manipulation, then surely the explanation lies in the apophyseal joint rather than the disc.

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SIR,—It is encouraging to see that backache is at last being taken seriously enough to be the title of an article by Dr J A Mathews (12 February, p 432). His article is an excellent summary of current thought on this subject. I was a little disappointed, however, by his rationale for treatment. I had thought that we had progressed from the idea that all “mechanical” backache was due to a swelling impinging upon dura or nerve root and that all treatment must be directed to “restoring anatomy.”

As one who spends nearly all his time manipulating, I feel that to talk of the rationale for this kind of treatment as being to “coax a bulge back into shape” is a gross oversimplification and misrepresentation. That improvement in the disc contour can occur has been shown by Dr Mathews's own work, but I would venture to suggest that in most cases it is irrelevant. Aside from this effect, numerous other effects of manipulation have been claimed—for example, modification of the topographical relationship between a disc hernia and nerve root; decreasing compression and shearing stress on the disc; opening of the intervertebral foramen; increase in posterior joint mobility; muscle relaxation; normalisation of proprioceptive impulses; vasomotor and visceral effects; and psychological effects.

To my mind, by concentrating too hard on any one of these effects of manipulation one is missing the most important and perhaps the most obvious: movement. A spinal joint by careful intersegmental movement palpation is found to be locked. One manipulates. It moves. Gradual elimination over a number of sessions of all such locked segments leads to disappearance of backache in the vast majority of cases. Is it unreasonable to assume that restoration of function in the spinal joints and therefore in the spine as a whole is more important than restoring anatomy?

If one thinks more of function and less of anatomy “the unlikelihood of persuading a soft-tissue lesion to heal more rapidly than by rest alone” seems to be a false assumption. Rest is one thing, immobility or abnormal mobility is another. I would venture to suggest that restoration of function is more important to the healing of cartilaginous structures than rest. Apart from this, by manipulation one is restoring a normal balance of movement to the spine as a whole. How frequently are the locked segments not at the site of root compression? Has Dr Mathews not seen manipulation of the atlas remove signs of upper cervical nerve root irritation and at the same time improve sciatica? There is no disc either above or below the atlas.

The discovery of disc herniation may have been an advance, but, like thoracic outlet syndrome and carpal tunnel syndrome, does it not seem that the concept is blinding us to other and perhaps more general problems in the aetiology of referred pain syndromes?

M B H WILSON

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SIR,—I fear that little progress will be made in coping with the difficult problem of backache as long as doctors share the view of Dr J A Mathews (12 February, p 432) that “recumbency and analgesics remain the basic treatment for most mechanical spinal lesions.” In the experience of doctors who routinely apply the various active medical measures for which Dr Mathews evidently has little enthusiasm good results are consistently obtainable. Indications for manipulation and traction,¹ epidural local anaesthesia,² ligamentous sclerosis,³ and peripheral nerve blockade⁴ have been set out. Short of a major new approach, the selective application of these methods constitutes the only hope for effective treatment for “mechanical” backache (apart from surgery). All such patients should therefore be given the chance of treatment along these lines rather than, as a primary treatment, being consigned to bed.

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¹ Cyriax, J, *Textbook of Orthopaedic Medicine*, 6th edn. London, Baillière Tindall, 1975.

² Coomes, E W, *British Medical Journal*, 1961, **1**, 20.

³ Barbor, R, *Proceedings of the IVth International Congress of Physical Medicine*. Amsterdam, Excerpta Medica Foundation, 1964.

⁴ Rees, W S, *Annals of General Practice*, 1971, **16**, 126.

Drug promotion

SIR,—I recently received through the post three Mexican jumping beans together with promotional material from Napp Laboratories Ltd for Bradilan (tetranicotinoyl fructose). The envelope carried the following intriguing message in red: “Contains live jumping beans” and inside I was told that the beans should remain active for several months, particularly if exercised regularly. The advertisement stated (among other things) that “we can't promise to make your patients jump but your claudicants will be able to walk further.” Admittedly there is a dearth of good objective evidence for the efficacy of this type of vasodilator in peripheral vascular disease,¹ but to give doctors Mexican jumping beans as an inducement to prescribe Bradilan is a sad

reflection on our current values. Surely the time has come to call a halt to such nonsense.

The journal advertising of drugs also leaves much to be desired. In the *BMJ* of 30 October 1976 there was an advertisement for Fortral (pentazocine) which claimed that with this drug there was "relief from the disadvantages usually associated with the opiates" (stated to be "nausea, vomiting, smooth muscle effects and respiratory depression"). This is quite untrue and dangerously misleading. Pentazocine is a potent respiratory depressant. In equianalgesic doses it can produce the same degree of respiratory depression as morphine and pethidine,^{2,3} and in larger doses it can cause apnoea.³ I know of cases of acute respiratory failure precipitated by the unwise administration of pentazocine by junior doctors who were under the false impression that it does not depress respiration. The perpetuation of this myth by such advertisements is totally irresponsible.

The promotional activities of the pharmaceutical industry have often been criticised by members of the medical profession and this criticism has been extended to the news media.⁶ Although the Government is currently restricting expenditure on drug promotion, further measures are obviously required.

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¹ Housley, E, *Prescribers' Journal*, 1974, **14**, 33.

² Potter, D R, and Payne, J P, *British Journal of Anaesthesia*, 1970, **42**, 186.

³ Duncan, S L B, Ginsburg, J, and Morris, N F, *American Journal of Obstetrics and Gynecology*, 1969, **105**, 197.

⁴ Bellville, J W, and Green, J, *Clinical Pharmacology and Therapeutics*, 1965, **6**, 152.

⁵ Evans, L E J, et al, *Lancet*, 1973, **1**, 452.

⁶ *Guardian*, 4 January, 1977, p 8.

Amendment of the Abortion Act

SIR,—The Doctors and Overpopulation Group has as one of its aims the maintenance of a liberal abortion policy, and because there now appears to be a further threat to weaken the provisions of the 1967 Act we would like to advance a few reasons for preserving the status quo.

In the areas where the Act is being properly implemented it is working well and its provisions are being interpreted in a responsible way. If any alterations are to be made these should be directed to levelling out the gross inequalities in NHS provisions for termination in the different areas of the country.

Virtually all the alterations to the 1967 Act were achieved by the Report of the Lane Committee,¹ and all that has happened since then is the waste of a large amount of parliamentary time to very little purpose. Abuses have been dealt with adequately and even if any did remain they would be abolished more effectively by improvements in NHS provisions for termination than by legislation.

The medical profession has shown itself to be sympathetic to the idea of a liberal abortion law and at the same time has made good use of the opportunities provided by the advent of a free family planning service. This has resulted in a downward trend in the number of abortions performed each year and for this reason it would seem even less necessary now than formerly to make any change in our abortion laws.

We believe that any further restrictions, however well-intentioned, will not reduce the number of abortions carried out but will rather cause them to be performed later in pregnancy with a resultant increase in morbidity and mortality. This is a time to leave well alone.

J A LORRAINE
Chairman

J P LESTER
Secretary,

Doctors and Overpopulation Group

Walsall, W Midlands

¹ *Report of the Committee on the Working of the Abortion Act*, London, HMSO, 1974.

Gallup poll on abortion

SIR,—I was intrigued by the letter from Professor R W Beard and Mr D B Paintin (12 February, p 448). At first I thought that a new method of induction by Gallup poll had been discovered (see line 3), but leaving that little matter of English aside I would like a further explanation of our language.

What is the essential difference between "available on demand" and "that abortion should be performed at the request of the woman once she has had adequate counselling" or that the doctor "should 'allow' abortion if she feels sure that it is a better course of action than continuing the pregnancy?" Then too they consider that the concept leaving room "for the conscience of the individual to act as he or she thinks right . . . should extend to the patient as well as to the doctor." Professor Beard and Mr Paintin, however, know right well that it is now virtually impossible for anybody to obtain an appointment as gynaecologist on the staff of a National Health hospital if, for religious or other reasons, he is unwilling to procure abortions. It is a closed shop.

Parliament is entitled to say that life may not be destroyed except in certain circumstances, but I am surprised that a permissive Act has been interpreted by the profession as directive. Is it to be expected that doctors will be virtually compelled to terminate life just because Parliament passes an Act allowing euthanasia? I may add that I was not favoured with a Gallup questionnaire.

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SIR,—With my St Mary's colleagues I, too, received a Gallup poll questionnaire and wondered who was paying for it and who would interpret and publish the findings. Having read the interpretation by Professor A W Beard and Mr D B Paintin of the 1967 Abortion Act (12 February, p 448) I begin to see the value of Gallup-style inquiries. Opinions given in good faith differ widely. For example, the television programme in which Mr Paintin carried out an abortion under local anaesthesia at St Mary's made it clear that, with his lay counsellors, he was impressed by social pressure on his patient—apparently a healthy, married young woman.

If, as stated in their letter, the St Mary's team operate under the phrase "if she feels sure it [abortion] is a better course of action than continuing the pregnancy" surely this is abortion on request. One of my senior and respected colleagues, when discussing the pros and cons of legal abortion, reads the 1967 Act to his patient. The operative clause 1 (1) (a),

which is used to cover most NHS and private abortions, reads "that the continuance of the pregnancy would involve risk to the life of the pregnant woman, or of injury to the physical or mental health of the pregnant woman or any existing children of her family, greater than if the pregnancy were terminated."

Had Parliament thought it right to allow abortion according to a doctor's "own sense of right or wrong" it would have said so and we should have had abortion on demand. But Parliament did not say that. Thus we have confusion which in practice means the matching of women who wish abortion with doctors who will do it for them. In the meantime we have the 1967 Abortion Act which in its initial stages was called by David Steel and the Abortion Law Reform Association "The Medical Termination of Pregnancy Bill" (my italics).

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* * * We have received a number of other letters expressing views very similar to those of Professors Theobald and McLaren.—Ed, *BMJ*.

Allergy to diazepam

SIR,—We would like to comment on the report from Dr Louis Milner (15 January, p 144) and the subsequent letters from Drs Donald Blatchley and R H Falk (29 January, p 287).

We are investigating the mechanisms involved in the reactions to Althesin and propanidid and preliminary reports have appeared.^{1,2} Concurrently we are applying the same investigatory techniques to the use of diazepam and diazepam diluted with Cremophor EL, given intravenously. Although we have few results as yet it seems that diazepam provokes in some patients similar subclinical reactions to those manifested by Althesin and propanidid.

Of seven patients treated with diazepam, five showed significant white blood cell variations of a type which we have previously suggested results from complement C3 activation and implies drug recognition or immunological memory.² Our records show that all these patients had probably received diazepam on at least one previous occasion. Three of the patients were given diazepam mixed with Cremophor EL (0.1 ml) and diluted with water. It was noted that while one of these patients showed no measurable leucocyte response the phenomenon was very marked in the other two and significant falls in platelet counts, indicating aggregation, also occurred. Although one would not attempt to analyse such limited data statistically, it is interesting that the incidence of subclinical response, five out of seven, is similar to that observed with the intravenous hypnotic agents (60%). We have previously suggested that, although Cremophor is most unlikely to initiate immunological reactions, its surfactant properties may enable it to present the drug to immunocompetent cells in more active form—that is, to act as an adjuvant.

Although correlation and threshold between subclinical and clinical responses remain obscure, any degree of immune memory probably infers a potential hypersensitivity