sorbent assay test for IgM antibodies, suggest that myalgic encephalitis is related to Coxsackie group B viruses in some outbreaks.

PETER O BEHAN

Institute of Neurological Sciences,
Southern General Hospital,
Glasgow G51 4TF

Migraine, headache, and survival in women

SIR,—Professor W E Waters and others (12 November, p 1442) report an unexpected higher mortality in women aged 45 to 64 years who did not have headaches or migraine compared with those who suffered from these ailments. I wonder if this finding is related to the fact that women who are susceptible to migraine are less likely to have ever smoked.

In a survey of 336 patients attending the Charing Cross Hospital migraine clinic there were significant differences between smokers and non-smokers.^{1,2} Smokers had more frequent and severe attacks, they were more likely to attend the hospital for acute treatment, and there was a 10-fold drop in the number of attacks when they stopped smoking. 74% of the patients were women, and eight times more women than men aged over 40 had never smoked, suggesting an early intolerance to smoking.

Migraine sufferers may be protected from other diseases as they are more likely to avoid alcohol and foods with a high amine content, such as cheese and chocolate, which they have discovered will precipitate their attacks.³

ELLEN C G GRANT

Kingston-upon-Thames,
Surrey

¹ Grant ECG. Oral contraceptives, smoking, migraine and food allergy. *Lancet* 1978;ii:581.

² Grant ECG, Rose FC. Smoking and migraine. In: Greenhalgh RM, ed. *Smoking and arterial disease*. London: Pitman Medical, 1981:29-34.

³ Hanington E. Preliminary report on tyramine headache. *Br Med J* 1967;ii:550-1.

The end of clinical freedom

SIR,—If the views expressed by Professor J R Hampton (29 October, p 1237) are generally accepted a radical change will be required not only in the Medicines Act 1968 but also in the way in which clinical trials are conducted in Britain.

At present under the Medicines Act 1968 a decision by the licensing authority on the registration of a new medicine can be based only on safety and efficacy; the question of cost cannot be considered by the authority. When this issue was debated in 1968 through the passage of the Bill in both Houses of Parliament there was strong support for the exclusion of costs from consideration for licensing, and this support was quite independent of the views of the pharmaceutical industry. It would be very surprising if these views have changed in the past decade.

In addition to the change already mentioned, it will become essential that clinical trials of the type required—that is, testing for safety and efficacy and cost effectiveness compared with existing medicines—would need to be set up and monitored by the Department of Health and Social Security, as it is most unlikely that other authorities or individuals

would wish to carry out such procedures. It may well be that other trials of the type with which we are now familiar will have to be stopped by withdrawal of finance for the trials or by some form of regulation, possibly even taxation by value added tax.

Prospects for scientific research, if this view gains the day, appear to be most discouraging, and I find it hard to believe that the medical profession in Britain will stand by and let its traditional freedoms be taken away from it by regulation or Act of Parliament.

J MICHAEL MUNGAVIN

Knaphill,
Woking,
Surrey GU21 2AL

Road blindness

SIR,—I thank Mr E Grattan for his letter on road blindness (1 October, p 983) and welcome the opportunity for expansion of views that were necessarily compressed in my leading article (3 September, p 626). I would suggest that he sees the problem as part of a range wherein eye injuries comprise only a narrow band. My stance as an eye surgeon, however, affords a perspective denied to him. To realign an oft quoted aphorism—one eye perforated is a tragedy, 100 eyes perforated is a statistic. So, although the incidence of eye injury expressed as a proportion of all injury to car occupants is admittedly low, the absolute figure for eye injuries is unacceptably high, as these injuries can be prevented. Mr Grattan cites a figure of two eye injuries per 1000 car casualties, drawn from a seven year series (1967-73). The most recent figures available cite 99 perforating eye injuries in a total of 5182 car casualties, an incidence of about 19 per 1000.¹

Mr Grattan uses figures derived from a recent paper by Mackay *et al* to suggest that laminated screens only halve the incidence of windscreen-induced eye injuries.² This inference is not compatible with Mackay's unequivocal conclusion that, "eye injuries are the one major type of dysfunctional injury associated with windscreen contacts and they appear as a particular feature of toughened glass, both from this study and the general literature." In an earlier paper Mackay had stated: "Eye injuries to car occupants could be almost eliminated if laminated instead of toughened windscreens were used."³ He went on to say "increased seat belt use will also reduce the magnitude of the problem, but will not eliminate it."

Many authors have indeed reported eye injuries to car occupants wearing seat belts. The mechanism of injury in these cases may be complex, but your correspondent's dismissal of the role of flying glass as a "supposition" which is "almost certainly incorrect" must be rejected on experimental and clinical grounds.

The seminal experimental study by Patrick *et al* states that with toughened glass the problem of stone impacts is "one of controlling the vehicle with an almost opaque windshield or in a shower of 15 to 20 lbs of flying glass, most of which is coming into the vehicle. These particles of varying size cause laceration and their number makes eye injury a grave danger."⁴ The clinical relevance of these studies is shown by a recent case in which a young woman occupying the front passenger seat was involved in a head on collision with

another car. On impact she was thrown forwards, bumping her head against the toughened windshield; it did not crack and she continued to see clearly through it. Moments later, on attempting to force open the car door, she heard a loud bang, saw the windscreen exploding in on top of her, and felt as if she were punched in the face. Her right eye suffered two perforating wounds and impaction of glass particles in the cornea; her left eye sustained one linear partial thickness wound of the cornea. Her forehead and right upper eyelid were deeply lacerated. This rare first hand account of the fracture of a windscreen affords a vivid insight into the manner of disintegration of a toughened screen.

Those who drafted the EEC proposal on safer windscreens were aware, as Mr Grattan is, of the dangers inherent in rigidly stipulating a particular glass. Their proposal was therefore designed to take account of future improvements in design and manufacture. My case is that proved safety measures should not remain unused for doctrinaire reasons.

JOHN BLAKE

Dublin 4

¹ Blake J, Kelly G, Fahey C, Khan MA. Eye injuries in road traffic accidents. *Ir Med J* 1983;76:120-4.

² Mackay GM, Gloyns PF, Hayes HRM, *et al*. Some aspects of facial injuries in present day cars. In: *Proceedings of eighth international technical conference on experimental safety vehicles*. Wolfsburg, October 1980. Washington: Department of Transportation, 1981. (Report No DOT HS 805 555.)

³ Mackay GM. *Eye injuries and the windscreen*. Dublin: Irish Faculty of Ophthalmology, 1975.

⁴ Patrick LM, Trosien KR, DuPont FT. Safety performance comparison of 30 mil HPR laminated and monolithic differentially tempered windshields. *International Automobile Safety Conference Compendium*. Brussels, June 1970. No 700427.

Luteinising hormone releasing hormone agonist in women with endometriosis

SIR,—The irreversible voice changes after treatment with danazol for endometriosis reported by Mr P G Wardle and others (1 October, p 946) add to the list of side effects reported with the use of this drug. Danazol treatment has been associated with nausea, weight gain, rashes, irregular vaginal bleeding, hirsutism, and depression.¹ These symptoms usually subside after treatment is stopped, though some androgenic effects may persist. Furthermore, a recurrence of symptoms attributable to endometriosis may occur in up to 40% of patients within three years of stopping treatment.²

We should like to report our preliminary findings with an alternative treatment for the medical management of endometriosis which, so far, has resulted in both subjective and objective improvement with minimal side effects.

A superactive analogue of luteinising hormone releasing hormone (buserelin, Hoechst) was administered by nasal insufflation in a dose of 200 µg twice daily. This resulted in down regulation of pituitary gonadotrophin secretion³ and a loss of cyclic ovarian activity; this produces a so called "medical oophorectomy" with amenorrhoea which is reversible.

Three patients have now completed our six month treatment protocol, which includes a laparoscopic evaluation before and after treatment. One patient with symptoms of dyspareunia and pelvic pain who had failed to respond to treatment with danazol noted considerable symptomatic improvement, and no active endometriotic deposits were seen at revision laparoscopy. The other patients, both with unexplained infertility and a mild degree of endometriosis, showed a reduction of endometriotic deposits at revision laparoscopy.