Respiratory side effects of beta-blockers

SIR,—I would like to comment on one aspect of the hazards of beta-blockers (leading article, 26 February, p 529)—namely, their use in patients with airways obstruction.

It is well known that blockade of beta₂ receptors may lead to bronchoconstriction in asthmatics.¹ This risk is said to be less with the so-called selective beta-blockers, which block predominantly the beta₁ receptors. My colleagues and I have measured the effect in mild asthmatics of a variety of beta-blockers, including propranolol, which is unselective, practolol, acebutolol, and metoprolol, which are described as cardioselective,^{2,3} and labetalol (AH 5158),⁴ which is unselective but has some alpha-blocking activity which appeared to prevent the bronchoconstriction produced with propranolol in the same asthmatic subjects.⁴ We found that administration of propranolol was followed by a greater degree of bronchoconstriction overall than that seen with the other drugs but that in a group of asthmatics there were some (usually those who developed most bronchoconstriction with propranolol) who showed increased airways obstruction with any of the drugs tested, as shown by falls in spirometry or specific airways conductance.

Thus because the effect of beta-adrenoceptor blocking drugs on the bronchi is unpredictable I always measure the effect of the drug on simple ventilatory tests such as the peak expiratory flow rate or forced expiratory volume in one second. If there is no or only a minimal fall in the measurements the drugs can be used with safety in these patients. If there is an increase in airways obstruction this can be reversed with a selective beta₂ receptor-stimulating drug such as salbutamol by aerosol. Interestingly, we found no significant correlation between the effect of the drug on the bronchi and its beta₁-blocking effect (which also varied considerably between individuals) as shown by a fall in resting pulse rate or inhibition of exercise-induced tachycardia.

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¹ McNeill, R S, *Lancet*, 1964, 2, 1101.

² Skinner, C, Palmer, K N V, and Kerridge, D F, *British Journal of Clinical Pharmacology*, 1975, 2, 417.

³ Skinner, C, et al, *British Medical Journal*, 1976, 1, 504.

⁴ Skinner, C, Gaddie, J, and Palmer, K N V, *British Medical Journal*, 1975, 2, 59.

Coeliac disease and mental illness

SIR,—I attended a one-day conference held on 29 June 1976 in London under the auspices of the Schizophrenia Association of Great Britain on "Some biological aspects of schizophrenia." About half the speakers chose subjects related to dietary factors and intestinal absorption, with the accent on alpha-gliadin and coeliac disease. Dohan in particular had developed this theme previously¹ and others^{2,3} subsequently offered possible explanations for the apparent connection in some countries between coeliac disease and schizophrenia.⁴

The population of Gravesend (about 100 000) has been used successfully as a sample typical of Britain as a whole to predict the outcome of the general election of 1970. From this population in the past 17 years there have been only four patients presenting to the local adult psychiatric services with mental

illness who also had coeliac disease. Two suffered from manic-depressive mood swings, one from recurrent puerperal depression against a background of long-standing hydrocephalus, and one from personality disorder with recurrent anxiety and depression reactive to marital situations.

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¹ Dohan, F C, *British Journal of Psychiatry*, 1969, 115, 595.

² Lancaster-Smith, M J, and Strickland, I, *Lancet*, 1970, 2, 1090.

³ Challacombe, D N, Dawkins, P D, and Baker, P, *Lancet*, 1976, 2, 522.

⁴ Dohan, F C, *Lancet*, 1970, 1, 897.

Surgery for Menière's disease

SIR,—I was interested in your leading article (15 January, p 124), but fail to agree that surgery is as important in the management of Menière's disease as you made it out to be. The level-headed criticism of Mr G G Browning and Dr J F Plantenga (5 March, p 642) prompts me to join the dissenters. With them I feel the only reliable form of surgery for this condition is labyrinthectomy, but would disagree that it is the operation of choice when the hearing loss is *minimal*. I would say that it is most helpful when the hearing loss is unilateral but severe and the contralateral ear normal or nearly so. Indeed, destructive surgery should be used in such cases only if the symptoms are severe.

May I also add a plea for very careful preoperative assessment of these patients, including plasma cholesterol and urate levels? It is my experience that correction of hyperlipidaemia and gout by medical treatment can considerably influence the course of labyrinthine vertigo.

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Predicting child abuse

SIR,—Drs Margaret A Lynch and Jacqueline Roberts (5 March, p 624) in a retrospective study have shown that certain information obtainable in the perinatal period might be helpful in identifying families in whom child abuse could occur.

With some years of experience only to guide us, social, obstetric, and paediatric workers at this hospital decided two years ago to try to detect such families and drew up the following six criteria to be identified in the mother in the perinatal period: (1) single at the time of conception and under 21 years; (2) from a known social problem family; (3) mentally dull; (4) too many pregnancies too close together; (5) late attender for antenatal care, or defaulter; (6) other adverse social circumstances. Whenever two of the above criteria were present the infant's folder was "green starred." Out of 4000 deliveries in two years a total of 232 infants (5.8%) have been starred—78 in 1975 and 154 in 1976.

So far in Sheffield among babies born in 1975-6 there have been eight "overt" cases of battering; four of the victims were born in this hospital and four elsewhere. Of the four born here, we had "green starred" three and should have done all four, but one went undetected although the necessary information

was available at the time. At the same time there were 10 "suspect" cases of battering of infants born in the hospital; three of these had been "green starred" but seven had not. All these seven were born in the first six months of 1975 before the system got going properly.

Of our six criteria, by far the most important have been (1), (2), and (3), and of course in our present society early pregnancy, mental dullness, and social difficulties are all frequently found in the same families. We were glad to see that Drs Lynch and Roberts have moved away from the idea that battering is not a social disease; although it can occur in any socioeconomic class, we would agree that it is much commoner in classes IV and V in Sheffield, as in Oxford. In this respect it is of interest that in the same two years 26 Sheffield children have died as cot deaths; seven of these had been born in this hospital but none of them had qualified for a "green star." This suggests that the social causes of infant abuse and cot deaths may be different.

Finally, we are now going to include a stay on the special care baby unit as a factor, probably omitting (4). Too many pregnancies too close together are happily becoming rarer.

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Breast conservation in mammary carcinoma

SIR,—Nobody would argue with your leading article (5 March, p 595), which states that prospective controlled trials should be a pre-requisite of any policy of breast reconstruction. I find it difficult to agree, however, that most women would be happier with a mastectomy and a good external prosthesis. This has not been our experience so far in immediate breast reconstruction and the demand for some form of breast reconstruction even years after mastectomy would also suggest that not all women are so philosophical.

It is also extremely disappointing to see raised yet again that hoary old chestnut of silicone inducing cancers in animals. I should have thought that by now it would have been quite clear that the hundreds of thousands of litigation-conscious American women who have had breast implants performed for cosmetic reasons in the past 20 years provide a more relevant series than a few laboratory rats.

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Increased university fees and graduate medical students

SIR,—In the recent debate regarding the threatened massive increases in university fees and the subsequent spate of sit-ins at many colleges a number of significant points have been missed in the uproar. Whatever the theoretical and political position of the "education as privilege or right" arguments, there is a group of unfortunate, but statistically minor, victims caught in the middle. The