been evaluating evening primrose oil in dye-free capsules in 14 patients with long-lasting MS, all of whom displayed pyramidal, cerebellar, and posterior column signs and symptoms. They were clinically relatively stable and no patient had had an obvious relapse in the year before starting evening primrose oil. They were assessed clinically using the Kurtzke disability score. Fine motor control was assessed using the B-M manual dexterity test, which involves putting small pins into holes in 60 seconds. Grip strength was assessed by a dynamometer. All the patients had had previous experience with the tests. Eight patients received four 0.6 ml evening primrose oil capsules/day while six received the same dose of the capsules plus 0.5 mg colchicine twice a day. Colchicine was given for two reasons¹: (a) it has proved successful in Behçet's syndrome,² a disease in which there may be MS-like neurological disorders; and (b) it appears to stimulate conversion of PUFAs to thromboxane A₂, a substance which may prevent accumulation of calcium in cells.⁴ Uncontrolled calcium entry may be a major factor in demyelination.⁷ The results were as follows:

Evening primrose oil alone—Five patients showed no change on the Kurtzke scale while three showed some improvement. There was no improvement in grip strength but there was a significant ($P < 0.05$) improvement in performance in the manual dexterity test.

Evening primrose oil plus colchicine—Four patients improved on the Kurtzke scale while two did not respond. Two of the patients regarded themselves as dramatically improved and one returned to work after being unemployed for eight years. In the manual dexterity test two patients who had been unable to insert pins at all for two years became able to insert some, and the overall improvement in the group was significant at the $P < 0.025$ level. Grip strength also improved but this improvement just failed to reach significance.

These results, we believe, justify a formal controlled trial and suggest that evening primrose oil packaged in dye-free capsules, especially when combined with colchicine, may be of value.

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- ¹ Cesarani, R, *et al*, *Prostaglandins and Medicine*, 1978, **1**, 499.
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- ⁴ Horrobin, D F, *Prostaglandins: Physiology, Pharmacology and Clinical Significance*. Edinburgh, Churchill Livingstone, 1978.
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Low-cholesterol diet in patients with gall stones taking chenodeoxycholic acid

SIR,—In a recent article (23 September 1978, p 851), Dr D P Maudgal and his colleagues concluded that a low-cholesterol diet resulted in an enhancement of the effect of chenodeoxycholic acid (CDCA) in patients with gall stones whose bile had already been rendered unsaturated by CDCA when taking a diet containing 600 mg cholesterol.

It should be noted that the difference obtained in the saturation index by the reduction of dietary cholesterol was very small (0.12 in experiment 1 and 0.05 in experiment 2) and we question whether these small differences are of any biological, as distinct from statistical, significance. There is certainly no evidence in the literature that the rate of gall-stone dissolution is related to the degree of lowering of the saturation index. The abstract

of Bell *et al*¹ cited by the authors states only that gall-stone dissolution in the rhesus monkey was associated with bile unsaturated with cholesterol. It is likely that the most important rate-limiting factor in dissolution may be the interfacial barriers² rather than the decrease of the saturation index.

We offer two other methodological criticisms of the paper. Firstly, the duration of "overnight fast" prior to bile sampling was not specified and yet it is critically important in studies where there is comparison of the saturation indices. A decrease in duration of fast from 16 to 9 hours, for example, can lower the index by as much as 0.36 in women and 0.19 in men.³ Secondly, the mean decrease in biliary saturation index of 0.12 in experiment 1 was produced in hospital on a 100 mg cholesterol diet, but a control group who entered hospital on a 600 mg cholesterol diet was not studied. There are many factors in the hospital environment, including the length of pretest fasting, which may have contributed to this change in saturation index.

In summary, we are not convinced that a low-cholesterol diet has been shown to have any place in the dissolution therapy for gall stones by CDCA.

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- ¹ Bell, G D, *et al*, *Gut*, 1972, **13**, 836.
- ² Molokhia, A M, *et al*, *Journal of Pharmaceutical Sciences*, 1977, **66**, 1101.
- ³ Williams, C N, *et al*, *American Journal of Digestive Diseases*, 1977, **22**, 189.

Vitamin E and malignant hyperthermia

SIR,—Last year (20 May, p 1345) I suggested that there might be an association between the consumption of excessive vitamin E and the development of malignant hyperthermia. The Malignant Hyperthermia Research Unit of the University of Leeds has now investigated the three children of the patient I previously described. Two of them have been proved by muscle biopsy to be susceptible to malignant hyperthermia.

It therefore seems likely that the episode of malignant hyperthermia I encountered was due to a genetically determined susceptibility, not to vitamin E.

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Effect of propranolol on plasma concentrations of HDL apoprotein and lipid

SIR,—The provocative reports by Dr A Helgeland and others (5 August, p 403) and by Drs D Streja and D Mymin (25 November, p 1495) associating low concentrations of high-density lipoprotein (HDL) cholesterol with propranolol therapy are further supported by the longitudinal study of Dr N Tanaka and others on 10 subjects before and after propranolol therapy.¹ In that study subjects were normolipaeamic and on no other medication. They were maintained on a standard hospital diet and no weight changes were observed during the study. After control blood samples had been collected, 60 mg/day of propranolol was administered orally for seven weeks and

120 mg/day for the eighth and final week. Throughout the period of propranolol administration serial plasma samples demonstrated a persistent fall in both HDL apoprotein and lipid concentrations. At the end of eight weeks of therapy only three-quarters of the concentrations of plasma HDL apoprotein and lipid remained.

It has been suggested that the apoproteins of HDL may have a key role in bringing about the anti-atherogenic effect of HDL.² The study's demonstration of a significant fall with propranolol therapy in both plasma HDL apoprotein and HDL lipid content heightens concern about a non-beneficial effect of chronic propranolol therapy in hypertensive and coronary artery disease patients.

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- ¹ Tanaka, N, *et al*, *Metabolism*, 1976, **25**, 1071.
- ² Eaton, R P, *Journal of Chronic Diseases*, 1978, **31**, 131.

Cardiac arrhythmias and "epilepsy"

SIR,—You kindly published my comment on cardiac arrhythmias that can be confused with epilepsy (2 July, 1977, p 45). The long Q-T interval syndrome was mentioned as one of the possibilities, exemplified by the case history of a young woman. The patient died of ventricular fibrillation recently, at the age of 23, and the necropsy finding prompts me to correct my earlier report.

The pathologist found an extremely thin-walled right ventricle, almost devoid of heart muscle. A very small fibrotic area was seen in the left ventricle. The heart valves and the coronary arteries were intact. This unusual (congenital?) form of myocardiopathy is referred to as parchment heart¹ or *ventricule droit papyrace*² in the French literature. It can be regarded probably as a variant of endomyocardial fibrosis. Some of those patients who survive infancy are prone to have recurrent attacks of ventricular tachycardia. Only a few similar cases have been described.²⁻⁴

The prolongation of the Q-T interval was a secondary phenomenon in this case and due to the myocardiopathy. It might have had a contributory role, however, in the pathogenesis of ventricular tachycardia and fibrillation.

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- ¹ Reeve, R, and MacDonald, P, *American Journal of Cardiology*, 1964, **17**, 715.
- ² Froment, R, *et al*, *Archives des Maladies du Cœur et des Vaisseaux*, 1968, **61**, 477.
- ³ Slama, R, *et al*, *Cœur et Médecine Interne*, 1969, **8**, 423.
- ⁴ Frank, R, *et al*, *Archives des Maladies du Cœur et des Vaisseaux*, 1978, **71**, 963.

Spontaneous pneumomediastinum complicating anorexia nervosa

SIR,—In their report of two cases of spontaneous pneumomediastinum complicating anorexia nervosa Drs Anita J Donley and T J Kemple (9 December, p 1604) found only one report of pneumomediastinum complicating starvation or wasting diseases.

We have recently managed a patient with spontaneous pneumomediastinum complicating severe hyperemesis gravidarum at 10

weeks' gestation. During seven weeks of vomiting she lost 12.2 kg weight before the pregnancy was terminated. A further weight loss of 5.8 kg had occurred three months before the pregnancy, when she was vomiting in association with a urinary tract infection. This weight loss of 18 kg in six months before the spontaneous pneumomediastinum represents starvation. We consider that this feature of severe hyperemesis gravidarum was the predominating factor in this case.

Cases of spontaneous pneumomediastinum associated with severe hyperemesis gravidarum may escape detection owing to a natural reluctance to use radiographs in early pregnancy.

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Transcendental meditation

SIR,—It really should not be necessary for a medical statistician to bring to your attention such obvious omissions as occurred in the report of Miss Diane K Thomas and Mr K A Abbas (23-30 December, p 1749). In the introduction we are told that there are deficiencies in previous reports on the effectiveness of transcendental meditation. Then this report omits any statement about randomisation and by implication therefore is not reporting a randomised trial. We are not told how or why these patients were selected either for this trial or for each treatment regimen. We are not told what the treatments were, in terms of how often or for how long each was given. Most importantly, we are not told how many patients were in each group, nor do we have any idea about the variation in the two scores at any time in the process. Furthermore, if neither the initial nor the final scores differed between the groups why is the P value as low as 0.002? Then the interesting comparison for the Spielberger (erger not urger) score is not assigned a P value but the uninteresting non-significant comparison is (P=0.002).

In the final paragraph we are told that this sort of study is the only way to evaluate transcendental meditation. My only comment would be that the authors lack imagination and perhaps experience. If TM is as effective as progressive relaxation in selected patients, what does that tell us about how good TM is? As it is this report tells us nothing of value.

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SIR,—Miss Diane K Thomas and Mr K A Abbas rightly point out (23-30 December, p 1749) that reported studies of the effectiveness of transcendental meditation (TM) are often deficient. Unfortunately, their own report shares some of these deficiencies. We are not even told how many subjects were included in the study; treatment allocation is not said to have been made on a random basis; the duration of treatment is not specified; and there is no mention of whether any subjects were receiving additional therapy, particularly

psychotropic drugs. Their conclusion that the practice of TM is associated with a reduction in anxiety is consistent with a great deal of other evidence,¹ but the validity of the comparison with progressive relaxation is open to question. It is important to know whether the anxiolytic effect of TM is simply the result of suggestion, regular relaxation, and other non-specific factors, as suggested by the work of Smith,² or whether TM has additional more specific effects. Two recent, carefully controlled studies, neither of which was cited by Drs Thomas and Abbas, have provided evidence that TM is more effective than simple relaxation in reducing anxiety, although the advantage of TM was modest.^{3,4} It is clear that more research is needed in this area, but it should be remembered that some forms of psychotherapy currently used for treating anxiety have less evidence in their favour than does TM. In view of increasing concern regarding the overprescription and abuse of anxiolytic drugs, any potential new approach to the treatment of anxiety should be given serious consideration.

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¹ Orme-Johnson, D W, Donash, L D, and Farrow, J T (editors), *Scientific Research on TM: Collected Papers*. Los Angeles, Maharishi International University Press, 1974.

² Smith, J C, *Journal of Consulting and Clinical Psychology*, 1976, **44**, 630.

³ Dillbeck, M C, *Journal of Clinical Psychology*, 1977, **33**, 1076.

⁴ Zuroff, D C, and Schwarz, J C, *Journal of Consulting and Clinical Psychology*, 1978, **46**, 264.

Intravaginal preparations of prostaglandin products

SIR,—During recent years an increasing number of articles published in medical and pharmaceutical journals have given advice and instructions about formulations considered suitable for intravaginal administration of prostaglandins.¹⁻⁶

In this situation, especially where such preparations are referred to as established practice, it may be thought that Upjohn, as the manufacturer of the prostaglandin products being used in the preparation of formulations such as "the gel," is involved in promoting their clinical use or in giving advice concerning them. We wish it to be known that this is not the case and that the company's product licence does not include use of its prostaglandin products in this manner. The licence held by Upjohn and the data sheets available to physicians and pharmacists for Prostin E2 and F2 alpha spell out clearly the approved methods of administration and indications for use. Clinicians are, of course, free to make experimental formulations at their discretion, but in such cases the Company is not responsible for their clinical use.

Research into improved methods of administering prostaglandins is continuing at Upjohn and until such time as a preparation appears in clinical trial, with the approval of the Committee on Safety of Medicines, all other formulations using Upjohn prostaglandins are outside the company's jurisdiction.

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¹ Mackenzie, I Z, Hillier, K, and Embrey, M P, *British Medical Journal*, 1975, **1**, 240.

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⁴ Mackenzie, I Z, and Embrey, M P, *Journal of Obstetrics and Gynaecology*, 1978, **85**, 657.

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Neglect of speech therapy

SIR,—Eighteen months ago, we sent a questionnaire to general practitioners in the Frenchay District. This questionnaire was designed to investigate general practitioners' feelings towards speech therapy in different areas. It probably would not surprise you to learn that the majority of answers fell within the "Don't know" category.

We recently arranged two open days at which communication disorders were described and assessment techniques, treatment procedures, aids, and appliances were all on show. All types of visual aid were used to demonstrate the areas in which we work. Ten gallons of wine was provided to anaesthetise those who found the learning experience too painful. These open days were attended by 600 people, but there was a noticeable absence of medical staff from within the hospital and of general practitioners. This was despite the fact that invitations had been sent to 27 practices and that notices had been put in prominent places. Also the event was covered on local radio and on television. We had made sure that one of the open days coincided with a GP meeting within the hospital so that GPs would not have to make two journeys.

Should I draw the conclusion that it is not only a question of "Don't know" but also of "Don't want to know" when it comes to communication problems?

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Destroying psychiatric records

SIR,—I have recently sought psychiatric records about one of my patients who had treatment elsewhere 25 years ago. I have been informed that these records are unavailable and all case records prior to 1968 have been destroyed due to lack of storage space.

Whereas it may be reasonable to destroy records of a general medical or surgical nature, it does seem unreasonable to destroy those which might be relevant in later years—that is, psychiatric records. Could one not ask that records be microfilmed as their bulk is thus drastically reduced.

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Green flashing lights for doctors

SIR,—I understand that from 1 February 1979 it will be legal for general practitioners to use, in an emergency, on their cars a rotating green flashing light (36 watt). Very little comment about this new arrangement has been made by the Association, and I have no doubt that many doctors do not know about this.