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SIR,—We believe that the report by Dr P Evrard and colleagues is incomplete in several important respects.[1]

Firstly, they indicate that their patient was of normal body weight and of previously good health and yet do not explain why she was taking an appetite suppressant, even though they comment that she was taking a higher dose than is recommended. Furthermore, they do not make any comment on the remarkable rate of weight loss. The patient lost 6 kg, 10% of her initial weight, in one week. In comparison, the average rate of weight loss by patients on a starvation diet is 2·7 kg a week.[2] In a recent study of dextrofenfluramine in obese patients, the mean weight loss in patients taking 15 mg twice daily was 9·82 kg over 12 months.[3] The likely explanation in this case is that the weight change chiefly represented loss of body water as a result of increased diuresis, vomiting, or restricted intake. Unfortunately, no mention is made of this, and the patient's electrolyte concentration and packed cell volume at admission are not detailed.

Neither dextrofenfluramine nor its racemic parent, fenfluramine, are known to affect fluid balance in this way. It is therefore important to consider alternative explanations before arriving at a final conclusion. For example, one might legitimately ask whether this patient had a covert eating disorder. Bulimia nervosa, which often goes unnoticed, occurs in an estimated 2% of the female population. Subjects not uncommonly take appetite suppressants even though most are at normal body weight. Self induced vomiting, purging, and fluid restriction often accompany such behaviour.

Although there are no reports directly linking bulimia nervosa with myocardial infarction that we are aware of, the degree of dehydration could be an important contributory factor. Several reports have drawn attention to the cardiac risks of starvation diets, but the problems described have generally occurred at least three weeks after initiation of absolute dietary restriction and have resulted from degeneration of cardiac tissue rather than ischaemic damage. Rapid weight loss does carry its own risks.

Given that there have been no reports that we are aware of that have directly linked myocardial infarction with fenfluramine in 25 years of its use, we believe that several questions need to be answered before such a claim can be made in this case.

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1 Evrard P, Allaz A, Urban P. Myocardial infarction associated with the use of dextrofenfluramine. *BMJ* 1990;**301**:345. (11 August.)
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AUTHOR'S REPLY,—We agree that the weight loss in our patient is unlikely to have been due to dextrofenfluramine and probably represented loss of body water. The association of dehydration and an oral contraceptive treatment may have precipitated the coronary event through a thrombogenic effect, but the coronary angiography performed 15 hours after admission showed no abnormality. Considering that only eight days elapsed between the start of dextrofenfluramine treatment and the coronary event; that fenfluramine may induce pulmonary hypertension, which is sometimes reversible[1]; and that amphetamine may induce coronary spasm,[2] the possibility of a coronary spasm induced by dextrofenfluramine cannot be ruled out.

On admission her haemoglobin concentration was 11·7 g/l and her packed cell volume 34·7%. Her sodium concentration was 137 mmol/l, potassium concentration 4·1 mmol/l, chloride concentration 101 mmol/l, and carbon dioxide concentration 23·1 mmol/l. Her osmolarity was 291 mmol/l, protein concentration 72 g/l, and uric acid concentration 0·34 mmol/l. We do not know why the patient had been prescribed an appetite suppressant. We agree that there was no apparent justification for such a treatment considering her normal body weight when dextrofenfluramine was prescribed.

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Of NHS trusts, an upbeat minister, and ice cream

SIR,—Scrutator tells us that Kenneth Clarke still hopes that "clinicians will become more involved in management."[1] Kenneth Clarke, like Roy Griffiths, Len Peach, and Duncan Nicholl, assured the general managers group of the BMA that he considered that doctor general managers were a good idea, but he then produced a set of circumstances that made it quite impossible for doctors to work as general managers.

In 1987, 127 of the 816 general managers in the country were doctors or dentists. Now there are only a handful left. Most of us, having invested enormous amounts of effort and time, having lost out financially and reduced our final pension prospects, and having received inadequate support in either our clinical or managerial roles, have returned to full time clinical practice.

Kenneth Clarke seems to have only one interest in getting doctors to participate in management. He hopes that in future when doctors are faced with managerial demands to balance the books and the clinical demands of patients the managerial demands will win. Inevitably, the patients will be the ones who lose out.

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1 Scrutator. Of NHS trusts, an upbeat minister, and ice cream. *BMJ* 1990;**301**:628. (29 September.)

Importance of ovulation in ovarian cancer

SIR,—Dr Derek J Cruickshank found a significant excess of right sided ovarian tumours in 214 women with epithelial ovarian cancer.[1] He suggests that this finding, together with the fact that ovulation has been reported to occur more frequently in the right than in the left ovary, supports the incessant ovulation hypothesis in the aetiology of ovarian cancer.[2]

We reviewed the data from a case-control study of 235 women with epithelial ovarian cancer.[3] The side of the affected ovary was recorded for 174 women, in 82 of whom the cancer was bilateral. Of the remaining 92 unilateral lesions, 48 were on the right side and 44 on the left. The difference was not significant. There were no notable differences between the women with right or left sided tumours with respect to age, histological subtype of ovarian cancer, grade of the malignancy, or factors associated with ovulation. Of those with right sided lesions, 32 had been pregnant and eight had used oral contraception, and 23 of the 31 women with at least one livebirth had breastfed. The comparative figures for those with left sided lesions were 30, six, and 19 of 27 respectively.

Thus our data provide no strong evidence that epithelial ovarian cancer arises more often in the right ovary than in the left. We cannot exclude the possibility of there being an excess of right sided lesions, however, as the 95% confidence interval for the percentage of right sided cancers was wide (42% to 62%). We do not have sufficient information to determine whether a greater percentage of the bilateral tumours were right dominant. Findings from larger case series would be of interest.

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The population bomb has already exploded

SIR,—Dr Tony Smith examined the problem of population explosion.[1] By exposing the myths surrounding this issue we stand a far better chance of actually controlling overpopulation through global education strategies. I thought, however, that Dr Smith put the onus for control on lilies in a Third World pond, suggesting that little education on birth control is required in the West.

The impact of the population explosion does not stem primarily from poor people in poor countries, who either do not know enough about contraception or lack the materials needed to limit their reproduction. Numbers by themselves are not the measure of overpopulation; instead it is the impact of people on ecosystems and non-renewable resources.[2] Data show that a baby born in the West will impose over a hundred times more stress on the world's resources and environment than will a baby born in the Third World.[3] Babies from poorer countries do not grow up to own motor vehicles or other fuel guzzling machines, and their life styles do not require huge quantities of minerals and energy, unlike those of their Western counterparts.

The answer to our imbalance in supply and demand lies in treating both sides of the equation—managing our biological instincts while maximising what natural resources we have left. Education on the need for birth control is as important in the West as it is in developing countries. The United States is one of the more backward countries in this respect, with over a million teenage pregnancies each year, of which more than half are brought to term.[4]

By approaching the problem in this way we may control our population growth through humane methods. Nature is likely to use a less kind alternative.

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