Mr. A. R. Gurd (personal communication) has shown that the insertion of cemented or non-cemented prostheses, or Kunchner nails, all produce similar and marked increases in the levels of fat in blood from the femoral vein. It is not surprising that fat is frequently found in the pulmonary vessels of these patients postoperatively. Not much significance can be attached to this finding unless it is combined with an assessment of cardiopulmonary function. Dr. Gresham and colleagues do not comment on fat in the systemic circulation of the patients who died following Thompson prostheses.

Patients undergoing femoral head replacement with Thompson prostheses are generally old, with pre-existing cardiopulmonary disorders. They are subjected to a second severe episode of stress at operation within a variable interval of the original trauma. A higher mortality rate in these patients compared to those undergoing total hip replacement may be related to the unsatisfactory general condition of the former and to the fact that they are suffering a second episode of stress.—We are, etc.,

M. L. JAMES
R. S. M. LING

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*Dr. James and Mr. Ling are correct. The authors inform us that in the typescript of their paper the words "acetabular" and "femoral" were inadvertently transposed and thus lines 7 and 8 in the first paragraph on p. 619 read incorrectly.—ED., *B.M.J.*

High Altitude and House-dust Mites

SIR,—We were very interested to read the article (9 January, p. 82) on the relationship of house-dust mite populations and altitude. Nairobi has a major asthma problem, but is at an altitude of 5,500 ft (1,650 m). Protozoal and helminthic infections do not appear to be important precipitating causes, but many patients give a history that suggests that house-dust mites may be precipitating factors.¹ We therefore have made a search for house-dust mites. Mites have been readily found in dust collected from mattresses (100 live mites per 5 g of dust being an average yield), using the simplest methods only—direct examination of dust with a dissecting microscope. The mites were predominantly *Dermatophagoides pteronyssinus*, and this has been confirmed by A. M. Cunningham of the Agricultural Research Council Pest Infestation Laboratory, Slough, Bucks.

This preliminary finding supports the view put forward in the article that it is not so much the altitude as the climate that determines mite populations, and that in high altitude areas in the tropics where much of the year is warm and humid, the house-dust mite may be an important precipitating factor in asthma.—We are, etc.,

FLORENCE GITOHO
PHILIP REES

Department of Medicine,
University of Nairobi,
Kenya

Rees, M. C., Rees, P. H., and Woodhead, B., in preparation.

Human Prolactin

SIR,—Your leading article (24 July p. 201) was an interesting review of the present situation. You touched only briefly upon a clinical example which illustrates the action of prolactin-release-inhibiting hormone and hence supports the existence of prolactin. Namely, when patients with deficient pituitary function are stimulated with fertility drugs, such as clomiphene, and pregnancy ensues, more than adequate lactation occurs, and also these patients may show secondary amenorrhoea and galactorrhoea once delivered, owing to continued inhibition of prolactin release. The following case history illustrates this:

The patient, a housewife now 36, had had no previous illnesses or operations. The menarche occurred at the age of 13, and menstruation continued normally for one year. The next year her periods were very slight and from the age of 15 she had no menstrual period unless it was artificially induced.

The patient had married at 28 years of age and was investigated four years later because of the secondary amenorrhoea. Thyroid function tests were normal and a metopirone test showed a normal adrenocorticotrophic response. Gonadotrophin levels were found to be low when assayed; no endometrium was obtained at curettage. A diagnosis of deficient pituitary function was made. The patient was treated with human menopausal gonadotrophin, and became pregnant after the second course. The pregnancy progressed satisfactorily though placental function tests began to fall near term.

A healthy male infant weighing 3,240 g was delivered by lower segment caesarean section at 38 weeks amenorrhoea. The baby was breast fed for five months though the patient continued to lactate once this was stopped. After the delivery the patient again failed to menstruate.

Now over one year after delivery the patient continues with secondary amenorrhoea and galactorrhoea.—I am, etc.,

E. DAW

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University of Dundee

Hypoglycaemia in Infancy and Childhood

SIR,—In your otherwise excellent leading article on "Hypoglycaemia in Infancy and Childhood" (17 July, p. 130) you use the word "insulinoma." This means a tumour derived from or composed of insulin, which is clearly absurd. What is wrong with "islet cell tumour"? If the suffix "oma" is considered essential then "residiocytoma" may be used.—I am, etc.,

JOHN M. ROBERTSON

Department of Pathology,
Bishop Auckland General Hospital,
South West Co. Durham

SIR,—In the leading article "Hypoglycaemia in Infancy and Childhood" (17 July, p. 130) treatment with intravenous glucose was recommended for infants with asymptomatic neonatal hypoglycaemia. This course of action would be justified if treatment itself were free from risk and there were reasonable grounds to suspect that asymptomatic

hypoglycaemia resulted in neurological damage. The evidence available fails to support either assumption.

Treatment with intravenous glucose carries with it the risk of osmolar disturbances, and when the umbilical route is chosen, as it frequently is for technical reasons, additional hazards are incurred.^{1,2} The prognosis for infants with symptomless hypoglycaemia is thought to be good,³ and though evidence of possible cerebral damage has been found in 12% of infants in two series,^{1,5} neither contained a control group. In a recent study (unpublished) of 41 hypoglycaemic infants reviewed at a mean age of 51 months and compared with matched controls, no difference was found between the groups in the incidence of cerebral damage, behaviour disorders, or convulsions, and the mean intelligence quotients were identical. Twelve infants in this series had experienced asymptomatic hypoglycaemia, and all were normal at follow up.

While everyone is agreed that infants with "true" symptomatic hypoglycaemia require urgent treatment to avert cerebral damage, this condition usually occurs after the first day of life, whereas the majority of infants with asymptomatic hypoglycaemia have their low glucose levels confined to the first 24 hours of life, with a strong tendency to spontaneous correction within this period.⁶

In the present state of knowledge it would therefore appear reasonable to adopt a conservative policy with regard to asymptomatic hypoglycaemia during the first day of life, and resort to intravenous glucose only if spontaneous correction has not occurred within this period.—I am, etc.,

A. D. GRIFFITHS

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Abergavenny, Mon.

- 1 Scott, J. M., *Archives of Diseases in Childhood*, 1965, **40**, 426.
- 2 Sanerkin, N. G., Edwards, P., and Jacobs, J., *Journal of Pathology and Bacteriology*, 1966, **91**, 569.
- 3 Shelley, H. J., and Neligan, G. A., *British Medical Bulletin*, 1966, **22**, 34.
- 4 Haworth, J. C., and McRae, K. N., *Canadian Medical Association Journal*, 1965, **92**, 861.
- 5 Chance, G. W., and Bower, B. D., *Archives of Disease in Childhood*, 1966, **44**, 279.
- 6 Griffiths, A. D., *Archives of Disease in Childhood*, 1968, **43**, 688.

Twilight Sleep after Infarction

SIR,—It may be of interest to hear of our experiences and impressions gained over the past 17 months at this hospital using the neuroleptic agent haloperidol in regular fairly high dose by intramuscular injection in the initial management of patients who have recently suffered acute myocardial infarction.

Sedation is generally considered desirable in these cases and morphine, heroin, etc. are useful in this respect as well as for their analgesic properties. It is written that the "psyche" may influence the occurrence of supraventricular arrhythmias, and it is possible that if supraventricular or ventricular arrhythmias are influenced by catecholamine levels then removing the sympathetic influence on the adrenal medulla and hence decreasing its secretions might decrease the incidence of these common post-infarction arrhythmias. Clearly, most patients having suffered an acute myocardial infarction are in a state of considerable mental

tension and on humane grounds the relief of this is desirable.

For these reasons we started using haloperidol in doses which induced a "twilight sleep" in patients considered on clinical and E.C.G. grounds to have had a recent acute myocardial infarct; virtually all were being monitored on the Cardiorater machines. Such therapy was maintained for 24-48 hours, depending mainly upon our impressions of the patients' clinical state 24 hours after starting of therapy. I must emphasize that the dose given must induce a true twilight sleep—a state in which the patient is apparently sleeping, invariably with eyes closed, but is able to talk, eat, and co-operate generally, immediately when requested to. After such stimulation he relapses into the former twilight state. It has continually been our experience that the patient, when in this state, admits to a feeling of detachment and tranquility with absence of worry. In particular, they do not feel "drugged" or mentally suppressed as with barbiturates.

Our dosage schedule has been 5 mg intramuscularly 4-6 hourly, depending on clinical response and body build. It would appear that a larger dose given less frequently might be adequate though we have found that with 5 mg the desired mental state can rarely be achieved if it is not repeated in at least six hours. On two occasions, however, using the above dose, we have failed to induce a true twilight sleep. Clearly, analgesics may need to be used concurrently—as an impression only I feel we have tended to use less during the period of regular haloperidol administration. We have seen no side effects whatsoever using the above regimen.

In particular, I am impressed by the absence of any effect on the blood pressure, and the regimen has been used in many patients exhibiting cardiogenic shock with systolic blood pressure of 100 mm Hg or less. Indeed, the first patient it was used on had had a cardiac arrest 20 minutes previously with successful defibrillation and was conscious though very agitated. Administration of haloperidol when the blood pressure was 90 mm Hg systolic resulted in no fall, but a slow rise over the following hours with concomitant decrease in sinus tachycardia to reasonable levels.

I feel for the reasons outlined above and the impressions gained with patients treated that the use of haloperidol to produce the tranquil state of twilight sleep is of benefit to patients in the immediate postinfarct period. A decrease of incidence of arrhythmias is, of course, difficult to prove.

Acknowledgement is made to Dr. P. L. Robinson for his encouragement in the use of the above therapy.

—I am, etc.,

I. T. PRATT

Clatterbridge Hospital,
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Cheshire

Disposing of the Undisposable

SIR,—I was sorry to see that the motion by Dr. R. P. Hendry proposed at the Annual Representative Meeting concerning the discontinuance of the manufacture of glass bottles (*Supplement*, 7 August, p. 88) was carried apparently without discussion.

It may be that plastic bottles are absolutely safe as was stated, but they are also well

high indestructible. It is incorrect to state that glass bottles are being gradually phased out. In some parts of Australia the sale of non-returnable glass and plastic bottles is prohibited as they litter the countryside when discarded. The manufacturers of Coca-Cola in the United States have reverted to returnable glass bottles in spite of the added cost of distribution and collection to prevent further pollution of the environment by non-returnable containers.

I trust that Council, before acting upon this resolution, will give due weight to all the considerations involved.—I am, etc.,

REX BINNING

Brighton and Lewes Group of Hospitals,
Brighton, Sussex

Abortion or Contraception?

SIR,—Two recent attempts to guide the profession through the perplexities of the unwanted pregnancy I found helpful but conflicting in some respects. I agree with your leading article (31 July, p. 261) that doctors should encourage the attitude that "unless a child is really wanted, sexual intercourse without contraception is an act of selfish irresponsibility by both parties." You dismiss a plea in mitigation by proposing universally and freely available contraception but omit to suggest that sex education be made compulsory for all school children. In my limited experience as a general practitioner, I find that while young girls presenting with an unwanted pregnancy know that sexual intercourse is the cause of pregnancy, they did not really believe conception would follow a single act and, "anyway, I did not think it could happen to me," or "he said he would be careful I did not come to any harm." Efficient, emphatic sex instruction with explanation of contraceptive techniques might correct these false assumptions.

In his sermon at the B.M.A. Official Religious Service (7 August, *Supplement*, p. 109) the Lord Bishop of Leicester sought to make the profession his allies in a moral crusade—possibly because we have a larger audience? He suggested that the nature of our calling gives us an authority which the church now lacks. However, when patients confess their sin and ask us to alleviate the consequences of that sin they do not expect from us either moral condemnation or absolution, although they might accept the gentle admonition "go and sin no more." I think the Bishop exaggerates our capacity to influence people's conduct. If I have never been able to persuade any healthy person to stop smoking by precept and example, could I expect to stop a determined fornicator by advising against it? The difficulty is that by the time an unmarried girl asks me for contraceptive advice (and that is her only reason for seeking advice) she has already formed a more or less stable relationship of which sexual intercourse is a regular and established feature. If I tell her she is immoral and sinful and refuse contraceptive advice I run the risk of a future request for the termination of an unwanted pregnancy. It would be harsh indeed to refuse a young woman who has applied a mature judgement to her behaviour, unlike her feckless sister who takes her chance of becoming pregnant.

It seems to me that the problem of the unwanted pregnancy can best be tackled by teaching in the only place there is a captive audience of young people—for example, in school, the facts of life—that is, human reproduction, contraceptive techniques, and the value of emotional control in the preparation for a stable, happy, and responsible marital relationship.—I am, etc.,

WILLIAM WOOD

Motherwell, Lancs

SIR,—Your forthright leading article on "Abortion or Contraception" (31 July, p. 261) was very welcome and timely, and should promote much thought and discussion.

The one item that should have been added to your heading was sterilization. The medical profession is well placed to take a more active part in the prevention of the overlarge family, and sterilization as an effective method of population control should be included in any discussion on this subject. The planned large family should be accepted at the present time as a personal right, but the unplanned large family should surely be prevented.

Sterilization, especially of the male parent, is better than both contraception and abortion. It should be more generally accepted that all parents, after the birth of, say, their fourth child should be interviewed in private, either at hospital, family doctor, or health visitor level, with the offer of a sterilization procedure to one or other parent, and that such an offer should be energetically pressed home, unless further children are strongly desired. At the same time, more publicity should be given to the general acceptance of the two-child family as the ideal.

The personally heard excuse for a large family that the parents "did not know how to stop them coming" should no longer be acceptable. The medical profession should not stand idly by and watch the relentless growth of our national and world population.—I am, etc.,

J. L. G. THOMSON

Clifton, Bristol 8

SIR,—In your leading article "Abortion or Contraception" (31 July, p. 261) you quote an impressive array of statistics to show that the number of unwanted pregnancies is increasing and, as a solution, you suggest that contraceptives should be readily available to all.

The simple fact is, of course, that contraceptives are readily available to anyone who cares to ask at a barber's shop, or one of the surgical supply stores which are to be found in almost any main street, or to anyone who cares to put a few coins into one of the contraceptive vending machines which can be found in many public lavatories. If people are so irresponsible that they cannot make use of the contraceptives which are already freely available for less than a packet of cigarettes, it is unlikely that they would make use of the National Health Service availability which is currently widely advocated.

It is significant that your leading article ignores the obvious fact that unwanted pregnancy has actually increased as contra-