considerable psychological trauma to our patient.

A 19 year old West Indian girl applied Drula Bleaching Wax for two or three months in order to lighten the colour of her skin. She subsequently developed severe irregular hypopigmentation of her hands, arms, neck, and legs. Despite discontinuing the use of the cream hypopigmentation continued for some weeks.

The monomethyl ether of hydroquinone, present in the product used by our patient, is a popular depigmenting agent in Europe but is used infrequently in the UK. It is closely related chemically to the monobenzyl ether of hydroquinone, which is prohibited from use in cosmetic products in the UK because of its known severe and irregular depigmenting qualities. In contrast hydroquinone is generally considered safe from these adverse reactions. We wish to draw attention to the disfiguring cosmetic results in our patient following the application of monomethyl ether of hydroquinone.

A large number of skin lightening preparations are readily available and other products may contain monomethyl ether of hydroquinone. At present all cosmetic products containing hydroquinone must state that they contain hydroquinone and the concentration must be less than 2%. We support Dr Ridley and others' argument and suggest that the cosmetic regulations dealing with depigmenting agents should be reviewed. We further propose measures to ensure correct labelling, with the active constituent of cosmetic products of this nature clearly stated.

J BOYLE
C T C KENNEDY

Department of Dermatology,
Bristol Royal Infirmary,
Bristol BS2 8HW

¹ Brun R. Contribution à l'étude de la dépigmentation expérimentale. *Dermatologica* 1959;118:202.

Acupuncture

SIR,—Dr George T Lewith's review of clinical trials of acupuncture (19 May, p 1475) divided these into those comparing acupuncture with conventional treatment, those comparing it with random insertion of needles, and those comparing it with a physical placebo. He concluded that acupuncture has an analgesic effect in about 60% of patients.

Dr Lewith referred to our study among those comparing acupuncture with the random insertion of needles. In fact our placebo technique was rather more complicated.¹ It used a homogenous patient group and was designed so that a 60% response rate to acupuncture and a 35% response rate to placebo would be recognised as a significant difference. Dr Lewith did not indicate that placebo controlled studies of acupuncture have repeatedly shown that there is no significant difference in the extent of pain relief obtained by acupuncture compared with placebo.² Our study confirmed the results of others, and we concluded that although acupuncture can increase the endorphin level in the cerebrospinal fluid and that its analgesic effect can be blocked by naloxone, the placebo component is clinically more important than its physiological effects.³⁻⁵

The "sceptics" to whom Dr Lewith refers have been supported by the studies published to date. It is now up to the acupuncturists to conduct valid trials confirming the efficacy of acupuncture if it is to become more than another fringe treatment based on belief rather than clinically demonstrable effectiveness. Studies have so far failed to confirm the various

extravagant claims made for acupuncture by enthusiastic practitioners.^{9,10}

G MENDELSON

Melbourne

- ¹ Mendelson G, Selwood TS, Kranz H, Loh TS, Kidson MA, Scott DS. Acupuncture treatment of chronic back pain: a double-blind placebo-controlled trial. *Am J Med* 1983;74:49-55.
- ² Mendelson G. Acupuncture analgesia: I. Review of clinical studies. *Aust NZ J Med* 1977;7:642-8.
- ³ Lee PK, Andersen TW, Modell JH, Saga SA. Treatment of chronic pain with acupuncture. *JAMA* 1975;232:1133-5.
- ⁴ Gaw AC, Chang LW, Shaw LC. Efficacy of acupuncture on osteoarthritic pain. *N Engl J Med* 1975;293:375-8.
- ⁵ Moore ME, Berk SN. Acupuncture for chronic shoulder pain. *Ann Intern Med* 1976;84:381-4.
- ⁶ Edelist G, Gross AE, Langer F. Treatment of low back pain with acupuncture. *Can Anaesth Soc J* 1976;23:303-6.
- ⁷ Sjolund B, Terenius L, Eriksson M. Increased cerebrospinal fluid levels of endorphins after electroacupuncture. *Acta Physiol Scand* 1977;100:382-4.
- ⁸ Mayer DJ. Pain inhibition by electrical brain stimulation: comparison to morphine. *Neurosci Res Program Bull* 1975;13:94-100.
- ⁹ Gold J, Wilcox R. Acupuncture: why we don't use it more often. *Med J Aust* 1983;2:4-5.
- ¹⁰ Mendelson G. Acupuncture. *Med J Aust* 1984;140:181.

SIR,—Dr G T Lewith (19 May, p 1475) cites 20 controlled clinical trials of acupuncture versus placebo or conventional treatment. From these he concludes that acupuncture has an analgesic effect in about 60% of patients with chronic pain, and that it may be more effective than conventional treatment in some specified conditions.

Of these 20 studies 11 showed no real difference between the effects of acupuncture, placebo, or conventional treatment. Six had either serious methodological flaws, very small numbers, or both, that cast doubt on the validity of their conclusions. Three appeared to show a significant difference. Of these three studies one was not randomised, the treatment groups were not comparable, and the statistical analysis was faulty.¹ When reanalysed using conventional statistical methods there was no real difference between acupuncture and steroid injections. The second of these three studies analyses the results using a non-parametric method and a one tailed test of significance which fails to achieve statistical significance if the more usually applied two tailed test is used.² The last of the three studies appears in the *American Journal of Acupuncture*, which has proved difficult to get hold of at short notice.³

Could Dr Lewith tell us on which of these trials he bases his conclusions?

JOHN ROBSON

South Poplar Health Centre,
London E14

- ¹ Brattberg G. Acupuncture therapy for tennis elbow. *Pain* 1983;16:285-8.
- ² Hansen PE, Hansen JH. Treatment of facial pain by acupuncture. *Acta Neurochir* 1981;59:279.
- ³ Junnila SYT. Acupuncture therapy for chronic pain: a randomised comparison between acupuncture and pseudo-acupuncture with minimal peripheral stimulus. *American Journal of Acupuncture* 1982;10:259-62.

*.*The author replies below.—Ed, *BMJ*.

SIR,—My statement that "the results give an overall impression that acupuncture has an analgesic effect in about 60% of patients with chronic pain is based on an overview of all the data available. My method of reaching this conclusion is described in detail elsewhere,¹ but in simple terms it involves averaging the

effects claimed for acupuncture in all the 20 studies.¹ Statistically this information is of limited value but it provides some sort of rational answer to the question "How effective is acupuncture?"

I stated in my leading article that many of the studies are poorly designed. The main point I was attempting to make was not to "prove" acupuncture is effective, but to cite the inadequate evidence available and suggest how acupuncture could be further investigated in an objective and critical manner. To be scientific we must begin with some assumptions which are necessarily based on inadequate evidence, and which may be proved ultimately to be false.

GEORGE LEWITH
Director

Centre for the Study of Alternative Therapies,
Southampton SO1 2DG

¹ Lewith GT. How effective is acupuncture in the management of pain? *J R Coll Gen Pract* 1984;34:275-8.

Psychosocial stress in pregnancy and its relation to low birth weight

SIR,—We commend Dr R W Newton and Miss Linda P Hunt for the careful methodology of their prospective study into psychosocial stress and birthweight (21 April, p 1191) but unfortunately the same cannot be said for their interpretation of the results. They describe an inverse relation between the life events of the pregnant woman during pregnancy and the child's birthweight. They admit that life events did not add measurably to the effects that the mother's smoking has on birthweight, but they still maintain that there is an effect of stress on birthweight. Even if the effect of smoking were to be ignored they have misinterpreted their life events data.

The association between life events and disease is that "stressful life events, by evoking psychophysiological reactions, play an important causative role in the natural history of disease."¹ Life events are extremely complex, and any broad theory which does not state which psychophysiological reactions are to be considered stressful or the mechanisms by which disease is caused is likely to be of little scientific use. With few exceptions life events are as much a consequence of behaviour as a determinant, and in addition to any psychophysiological changes related to "stress" many other changes precede and follow an important life event.²⁻⁴ It is extremely difficult, therefore, to implicate life events as causal rather than confounding factors in health outcomes with any confidence and even more difficult to show that any effect is due to stress.

Dr Newton and Miss Hunt's study is not discredited by these criticisms. The prospective design does mean that a case for an effect of life events on birthweight could be made. The finding that mothers of preterm and low birthweight babies reported considerably more life events in the last trimester of pregnancy than controls is particularly interesting as fetal weight increases most during this period. It is surprising, however, that for the whole sample the incidence of life events differs dramatically between trimesters. If the incidence of life events were unrelated to the mother's behaviour no difference in incidence between trimesters would be expected. Yet Dr Newton and Miss Hunt report a reduced

incidence between first and second trimesters ($\chi^2=43$ $p<0.001$) followed by an increased incidence in the third trimester ($\chi^2=26$ $p<0.001$). In view of these differences one wonders to what extent the association between life events and birthweight can be trusted to reflect causal relation.

The differences in the incidence of life events are intriguing. A possible explanation is that a reported incidence reflects discomfort during pregnancy in terms of changing behaviour or changing the perception or reporting of life events. The discomfort of the first and third trimesters being contrasted by the relative well being of the second. To consider Dr Newton and Miss Hunt's data in this way would probably be more productive than in terms of the "stress" hypothesis. Demonstrable behavioural and psychological changes in pregnancy are of much broader interest and implication than the remote possibility of stress.

J GALLACHER
A GALLACHER

MRC Epidemiology Unit
(South Wales),
Cardiff CF2 3AS

¹ Holmes TH, Masuda M. Life change and illness susceptibility. In: Dohrenwend BS, Dohrenwend BP, eds. *Stressful life events*. Chichester: John Wiley and Sons, 1974.

² Rabkin JG, Struening EL. Life events, stress, and illness. *Science* 1973;194:1013-20.

³ Sussner M. The epidemiology of life stress. *Psychol Med* 1981;11:1-8.

⁴ Kasl S. Pursuing the link between stressful life experiences and disease: A time for reappraisal. In: Cooper CL, ed. *Stress research*. Chichester: John Wiley and Sons, 1983.

* * Dr Newton replies below.—Ed, *BMJ*.

SIR,—There are data from our study which were excluded from the paper but which are relevant to the suggestion that behavioural changes alter the reporting of life events. At each interview the women were asked to complete Spielberger's state trait anxiety index and Zung's self-rated depression scale. Mean scores for these three parameters varied little from trimester to trimester, although notably higher scores for state anxiety and Zung's self-rated depression scale scores were obtained from the 17 women interviewed before delivery who were of 39 weeks gestation or more. There is no indication from these self rated measures of mood and affect that any important intertrimester behavioural changes exist.

Rather the pregnancy itself often determined the recorded timing of some of the life events. Six single women in the first trimester broke off the relationship with their boyfriends, and three married women in the last trimester became separated from their husbands. The impact of the pregnancy on the partner seems to have been an important point here. In 13 cases the women were the sole wage earners in the family. When forced to give up work in the last trimester there was a considerable decrease in income. A methodological issue also has a bearing on the observed differences where an event was continuous, such as "prolonged ill health in a close relative"; it was recorded only once, accounting for 24 first trimester life events.

These observations in part explain the observed differences and a logistic problem inherent in this type of research may also have contributed. Not all those who delivered prematurely could be interviewed before delivery, and, therefore, it must be conceded that "effect after meaning" could account for

some third trimester life events but the defined objectivity should have minimised any such effect.

The psychophysiological mechanisms cited in the second and third last paragraph of the paper are eminently plausible models for the mediation of the effect of the experience of undesirable life events on the fetus and uterus. Not only is continuation of this line of research of "scientific value" but also study of the effect of social support of those disadvantaged women who experience undesirable life events should prove worthwhile.

RICHARD NEWTON

Royal Manchester Children's
Hospital,
Pentlebury,
Near Manchester M27 1HA

Local skin depigmentation due to local corticosteroid injection

SIR,—I think local skin depigmentation due to corticosteroid injection is far more common than is generally realised (9 June, p 1725). I have seen several cases in the past few years occurring after injections for tennis elbow, particularly in thin people in whom the epicondyle is very superficial. Usually the pigmentation gradually returns, but not if repeated injections are given into the same site. As Mr Raymond J Newman points out, the side effect is unsightly and may be distressing, particularly to patients with dark or deeply tanned skins.

He states that alternative methods of treatment should be considered before potent corticosteroids are injected, but very often it is the failure of these alternative methods—drugs, rest, or physiotherapy—that leads one to inject the painful site.

A J RICHARDS

Department of Rheumatology,
Worthing Hospital,
Worthing, West Sussex
BN11 2DH

SIR,—It is not at all surprising that intralesional subcutaneous injections of depot corticosteroids should produce hypopigmentation (9 June, p 1725). Dermatologists have for many years observed local hypopigmentation of deeply pigmented skins following both intradermal injection and topical application of potent corticosteroids. Indeed, one such steroid is contained in a well known depigmenting cream mixture.¹ They appear to have a direct effect on melanocytes for Kligman and Willis observed reduced dopa positivity and reduced numbers of cells with shrunken dendrites.

ROGER CLAYTON

Dermatology Department,
St Mary's Hospital,
London W2

¹ Kligman AM, Willis I. A new formula for depigmenting human skin. *Arch Dermatol* 1975;111:40-8.

Appropriate technology obstetrics

SIR,—Dr Jill Everett discusses appropriate methods of diagnosing intrauterine growth retardation (all of them of debatable value) and then later states that there is little place for caesarean section in the fetal interest (26 May, p 1600). Herein lies the dilemma with intrauterine growth retardation in Third World

obstetric care. It is impossible to diagnose accurately, and even if it is suspected what is to be done? Induction of labour for an uncertain diagnosis with uncertain dates when monitoring of the fetus in labour is likely to be poor and caesarean section is, as is clearly stated by Dr Everett, to be avoided whenever possible, seems a recipe for disaster.

This is another instance of transferring Western ideas to an inappropriate setting. Until the major problems of avoidable maternal deaths and failure to provide adequate comprehensive community obstetric care are overcome the nuances of the managing of fetal growth retardation should have a low priority in the Third World.

The importance of community based obstetric care received negligible mention in Dr Everett's article, but this is the most appropriate technology of all. Traditional birth attendants have a crucial role to play in the midwifery services of most of the developing world.¹ They should form the base of a pyramid of maternal health services to which the doctor's main contribution is his organisational and teaching ability. In this structure trained midwives perform many functions in relation to antenatal care, labour, and delivery which are traditionally assigned to doctors in the West.

C E LENNOX

Department of Obstetrics and Gynaecology,
Ninewells Hospital,
Dundee DD1 9SY

¹ Bullough CH. Traditional birth attendants. *Trop Doc* 1983;13:49-50.

Appropriate technology anaesthetics

SIR,—Dr F N Prior (9 June, p 1750) describes simple and widely applicable anaesthetic techniques capable of producing first class operating conditions. In addition anaesthetists in the third world require expertise in planning, teaching, and logistics.

An open forum of anaesthetists interested in this problem was held recently in Oxford, and a group of those interested in the development of anaesthesia in the Third World was called for. We are now forming such a group and any doctor interested in joining is invited to write to me. Our aims are: (1) To provide a forum for the exchange of ideas concerning anaesthetic care in developing countries and remote locations. (2) To encourage training in techniques which can be used when resources are limited. (3) To promote the development of appropriate anaesthetic techniques and equipment. (4) To provide a network of experienced anaesthetists on whom those working in and for developing countries can call for assistance.

MICHAEL DOBSON

Nuffield Department of
Anaesthetics,
John Radcliffe Hospital,
Oxford OX3 9DU

Birth of the first child

SIR,—Dr M D Jewell (26 May, p 1584) mentions the important problem of postnatal depression. Estimates of the incidence vary widely and clearly reflect the definition of the term "depression."¹ Although I agree that social and relationship factors may be important, I cannot agree with Dr Jewell that postnatal depression is (entirely) a social and political problem. In many cases the correct