Positive Smear in Pregnancy

SIR,—Mr. H. E. Reiss and Drs. J. A. U. Morgan and Margaret R. A. Utidjian are quite right (8 March, p. 641). Conization (also our routine apart from pregnancy) is a more complete method of investigating a positive smear than our cervical inspection and four-quadrant small biopsies. Over the period from 1958 to 1967 we have asked our patients in the interest of the baby to accept our advice, with the *tiny* risk that ill fortune had dealt what A. T. Hertig calls the "joker in the pack"—that is, not only carcinoma-in-situ but a tiny area of invasive, perhaps metastatic, carcinoma. Since 1966 we have added to our investigatory team J. A. Jordan, an expert in modern colposcopy, which uses subepithelial vascular patterns to locate abnormal epithelium.[2-4] Small biopsies may be taken from target areas, but for the most part the dilatable pregnant cervix reflects the positive smear—namely, carcinoma-in-situ or epithelial dysplasia: these areas are now left alone until after delivery and planned conization eight weeks later.

May I pose two questions to colleagues who undertake routine conization in pregnancy?

(1) How often is pregnancy disturbed by this technique? Manifestly loss of a potential child and at histology the presence of no more than epithelial dysplasia is a poor bargain.

(2) How often do you excise the epithelial lesion completely—that is, how often is post-delivery conization again indicated by persistently positive smears?—I am, etc.,

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Killing the Patient

SIR,—Now that the debate on this subject in the Lords is over one presumes that the matter will be conveniently shelved for another 20 years. It is obvious that society in general and doctors in particular are not yet ready to reappraise their traditional attitudes to death.

Lord Raglan's Bill had sufferers from cancer particularly in mind. There is another category of irremediable condition to the solution of which society must sooner or later make a more constructive approach than at present. I refer to old age itself. Advances of medical science have made the attainment of extreme old age a commonplace. In these circumstances are we forever to refuse to intervene, leaving "nature to take her course" in regard to death, even though we may have intervened many times during the course of life by giving antibiotics, conducting operations, etc.? We say in effect that death must always be due to disease or accident to be of natural cause. But is a voluntary death after the age of 85 so unthinkable? Is not the ideal to be aimed at a disease-free life followed by a disease-free death? If people were offered the option of euthanasia after the age of 85 I believe many would welcome it.

Medicine has made immense strides in the control of disease and is beginning to control birth, but death we insist on leaving to haphazard and fortuitous chance. With the prospect of remedies for such conditions as cancer and even atherosclerosis in sight it is high time we sought to replace instinct and prejudice in this matter by reason, logic, and humanity.—I am, etc.,

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Anti-D Immunoglobulin

SIR,—During the past year anti-D immunoglobulin has been available to the main maternity units in this region. To date 1,117 Rh-negative primigravidae have been given 200 μg. within 36 hours of the birth of an ABO compatible Rh-positive infant. The blood of 320 recipients has been examined after the injection, and it is disturbing to find six apparently actively immunized.

The passively injected anti-D is detectable by enzyme methods only, but six women have antiglobulin titres ranging from 8 to 128. In two of these cases immunization was suspected at the time of delivery by the detection of a weak anti-D by enzyme methods only, but the obstetrician decided to inject anti-D immunoglobulin. There are strong suspicions that one of these patients had had a previous pregnancy. In the four remaining cases the patients deny any previous pregnancy or transfusion, and there were no obstetric complications which might have resulted in a large foeto-maternal haemorrhage. One of these patients had no detectable anti-D at the time of delivery, but in the other three the serological tests had been performed at the 36th week of pregnancy and not at delivery. It is thus possible that anti-D was already present at the time of delivery.

A striking feature of these six cases of apparent active immunization is the rapid appearance of anti-D detectable by antiglobulin techniques. In four patients anti-D was detected six days after delivery, and in the remaining two six weeks post-partum. These observations emphasize the need to test maternal serum for anti-D at the time of delivery, and also the importance of following up all recipients of anti-D immunoglobulin.—I am, etc.,

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Maternal Rh Immunization

SIR,—In the otherwise excellent recent paper by Dr. W. Q. Ascari and others (15 February, p. 399) there is what I consider a serious error in logic. The error is very nicely summarized in the title of Table III "Comparison Between Expected and Observed Frequencies of Maternal Rh Immunization in ABO Incompatible Matings." What the authors have actually done is to compare the incidence of various ABO incompatible matings in a population of women who have Rh antibodies with the expected normal incidence of such matings of non-immunized women. They demonstrate a very appreciable reduction (31% to 49%) in incidence of A×O and B×O (woman group O) matings, but by no means a complete absence. They then proceed to use these figures to calculate that the incidence of immunization of group O Rh-negative women by a single group A or B Rh-positive foetus is 9 to 12%, as compared to 17% by a single ABO compatible Rh-positive foetus.

What these authors failed to take into account is the fact that the husbands of many of these women doubtless were heterozygous (AO or BO), and that many of these women had doubtless previously delivered Rh-positive babies of group O. Actually, experimental efforts to immunize group O Rh-negative volunteers to the Rh factor, using group A or group B Rh-positive cells, have not been particularly successful, and the antibodies observed were in most cases of very low titre. The present authors themselves point out that "cases of Rh haemolytic disease tend to be less severe where dual (ABO and Rh) incompatibility exists between mother and infant."

There can be no question that the development of Rh immunoglobulin for the prevention of Rh immunization will eventually all but wipe out haemolytic disease of the newborn due to Rh immunization by pregnancy. It is by no means equally certain, however, that every Rh-negative woman who delivers an ABO *incompatible* Rh-positive baby must be urged to receive an injection of this material. More detailed prospective analyses of incidence of Rh immunization among women who do not receive this material must be undertaken before the incidence of immunization by ABO incompatible foetuses is fully understood.—I am, etc.,

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Trichloroethylene Neuropathy

SIR,—In the *B.M.J.* (15 February, p. 422), which I have just received, there is a medical memorandum on trichloroethylene neuropathy by Dr. A. B. S. Mitchell and Dr. B. G. Parsons-Smith. In this article they state that: "Trichloroethylene as an anaesthetic no longer produces neurological complications, but when used in industry the nervous system may be damaged. This is unlikely to be due to trichloroethylene itself, but may be due to breakdown products formed before inhalation, to metabolites formed in the body, or to triethylamine, which is used as a stabilizer in the industrial fluid but not in the anaesthetic fluid (Trilene)."

However, in the fifth edition of Lee's *Synopsis of Anaesthesia* in the section on "Trichloroethylene" the statement is made: "This danger [of toxic product formation] is much less with the brands of soda-lime now being used, which do not get so hot. The reaction to form dichloracetylene is much accelerated about 60° C., whereas present-day soda-lime does not get much above 40° C."[1]