hair has been advocated by a number of authors⁶ but is not a procedure which has been widely accepted in the United Kingdom. However, the use of enzyme variants employing a simple technique on single hairs possesses certain advantages over ABO grouping and it promises to enhance significantly the value of hair examination in corroborating, or disproving by exclusion, allegations of rape in which the circumstances of the crime have led to the forcible removal of hair by one or other of the participants. Such methods are already developed in the United Kingdom to the stage where they have been adopted into routine casework and produced in court as evidence.⁷

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¹ Polson, C J, *The Essentials of Forensic Medicine*, p 70. London, Arnold, 1926

² Moenns, A A, et al, *Scientific Evidence in Criminal Cases*, p 361. New York, Foundation Press, 1973.

³ Twibell, J, and Whitehead, P H, *Journal of Forensic Sciences*, 1978, **23**, 356.

⁴ Oya, M, et al, *Forensic Science*, 1978, **11**, 135.

⁵ Yoshida, H, et al, *Reports of the National Institute of Police Science (Japan)*, 1978, **31**, 7.

⁶ Gramer, L, and Tausch, D, *Zeitschrift für Rechtsmedizin*, 1973, **72**, 63.

⁷ Fereday, L, personal communication.

Iodine and acetone-containing plastic spray dressings

SIR,—We would like to draw attention to the hazard of using Op-Site, an acetone-containing plastic spray dressing, in conjunction with tincture of iodine (weak iodine solution BP).

Following the substitution of an acetone-containing spray dressing for a non-acetone spray blistering of the skin occurred on the backs of two patients who had epidural analgesia during labour. The skin had been prepared with tincture of iodine. A gauze swab, used to prevent kinking of the catheter at the skin edge, had been held in place with the plastic spray while the dressing towels were removed. The gauze and catheter were then secured with Sleek waterproof plaster. Blistering occurred only where the iodine had been covered by both the spray dressing and Sleek.

Patch tests were performed on the ventral surface of the forearms of seven volunteers. No reaction was observed to the plastic spray dressing covered by Sleek. Erythema occurred in all areas painted with three coats of tincture of iodine and covered by Sleek. One subject had three minute blisters. More severe reactions occurred in areas treated with both tincture of iodine and the plastic spray dressing and covered with Sleek. In three subjects, including the one who produced blisters with tincture of iodine and Sleek alone, severe blistering occurred.

Although it is well known that an irritant compound is formed by the interaction of iodine and acetone in spirit,¹ the reaction between iodine and acetone in plastic spray dressing has not, to our knowledge, been reported.

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¹ Martindale: *The Extra Pharmacopoeia*, ed A Wade, 27th edn, p 825. London, Pharmaceutical Press, 1977.

Glycolysated haemoglobin and diabetic control

SIR,—We read with great interest your leading article (27 May, p 1373) suggesting that Hb A_{1c} might be used as an index of long-term blood sugar control, and thus the metabolic abnormalities, of diabetes mellitus.

Hb A_{1c} is of course a glycoprotein, as are most of the blood proteins, and the time course of its synthesis and degradation are such as to reflect the long-term changes in blood sugar levels. However, this also applies to other blood glycoproteins. Two years ago we published¹ the results of our retrospective investigations into the relationships between five other blood glycoproteins and diabetic control and complications in 145 patients. In essence we found the same relationship between blood sugar control and the levels of these circulating glycoproteins and a similar relationship to plasma lipid levels as has been described for Hb A_{1c}.

While we agree that Hb A_{1c} is unlikely to be harmful in itself to diabetic patients, our results suggest that other glycoproteins might play a greater part in the pathogenesis of diabetic complications—for example, fibrinogen, α₂-macroglobulin, etc.

It is our feeling that there is a general increase in glycoprotein levels as a part of the abnormal metabolic processes found in diabetes which is best observed in the levels of those glycoproteins with highest hexose content. Whether these increases are causative or just associated with the development of diabetic complications is not clear.

We agree with you that serial measurements of Hb A_{1c}, and perhaps other glycoproteins such as fibrinogen or haptoglobin, might have great potential in monitoring long-term diabetic control, but prospective studies are clearly required before their value can be fully ascertained.

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¹ Jonsson, A, and Wales, J K, *Diabetologia*, 1976, **12**, 245.

Expectations of a pregnant woman

SIR,—As a general practitioner obstetrician I should like to take issue with two aspects of the discussion (15 July, p 188) on the expectations of a pregnant woman in relation to her treatment.

Firstly, item (2) of the National Childbirth Trust's list states: "It would be assumed that she would go into labour normally unless it was considered to be unsafe for her baby or her." This presupposes that few women will wish labour to be induced near term if given the option, a fact which experience shows to be untrue. I find that given a free and informed choice many women opt for induction by amniotomy and oral prostaglandins between 40 and 41 weeks gestation rather than an at times stressful and frustrating wait for the spontaneous onset of labour.

Secondly, it is stated by Professor Richard Beard that "there is an almost insuperable administrative problem in ensuring that the same doctor . . . who is seeing the patient in

the antenatal period is available when she comes in in labour." With efficient organisation, the support of his partners, and the encouragement of his consultant colleagues it is perfectly feasible for the GP obstetrician to be available for the vast majority of the patients in labour booked under his care, and in our own practice I have managed to be present during labour for more than 90% of our patients booked into GP beds within a specialist unit.

Dr Geoffrey Marsh¹ has shown that where a GP conducts a large proportion of the obstetrics of the practice there is a reduction rather than an increase in the perinatal morbidity compared with the area rate. It is regrettable both for women in labour and for general practice that more GPs are not following his example.

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¹ Marsh, G N, *British Medical Journal*, 1977, **2**, 1004.

Relapse in acute lymphoblastic leukaemia

SIR,—We read with interest the article by Drs M A Cornblett and Judith M Chessells (8 July, p 104) on children with acute lymphoblastic leukaemia (ALL) relapsing both on and off treatment.

We have been looking at all children in nine major centres in the UK who have relapsed in their bone marrow while receiving combination chemotherapy. We confined the study to children who had received standard induction therapy, central nervous system prophylaxis, and combination chemotherapy for two years or more. The median duration of survival of 190 children was 157 days and there were no survivors beyond just over two years from the time of relapse (see figure). Included in the 190 children were the 37 children in group A of Drs Cornblett and Chessells. Ninety-three children achieved a second remission; the median duration of haematological remission was 97 days and the median duration of complete remission 80 days. We have no cures among this group of children and can confirm the very short expectancy of life for children with modern therapy who relapse while receiving treatment.

An improved response to combinations with asparaginase was noted in another of the centres reviewed besides Great Ormond Street, and the importance of asparaginase in refractory ALL has been reported by other

Life table showing duration of survival from relapse for children with ALL relapsing on treatment.