Graphical Records in Labour

Sr,—Professor R. H. Philpott (21 October, p. 16.3) has described a method of graphic recording of labour which is an adaptation for labour conducted in Britain as it is for Africa, where it was devised. With some modifications, the use of Philpott’s partogram is now established in the Birmingham Maternity Hospital and the Dudley Road Hospital, Birmingham. Our main alteration has been to abandon his method of graphing of fetal heart rate abnormalities and we have chosen to record that actual fetal heart rate with type I and type II dips indicated by an arrow, the point of which marks the slowest fetal heart rate during a deceleration.

After use in more than 10,000 labours we can report our experience that partograms improve the clarity of recording of intra-partum observations, and omissions or discordant findings become highlighted rather than lost within pages of written notes. Similarly, the failure of labour to progress is quickly recognized. The partograms are educational in that all interdependent variables of labour are exhibited on a single sheet of paper with a central coccigograph, which serves as a visual computation of these factors. This is a particularly important point for teaching hospitals with responsibility for the training of medical students and midwives. They are equally useful in the busy peripheral hospital, where they are both time-saving and more efficient.

The alert and action lines constructed from data from Rhodesian African primigravidae may need some modification. For example, we are particularly worried that a woman admitted with a cervical dilatation of 5 cm, +, who subsequently develops secondary arrest, will wait too long before reaching the action line. Alternatively, the use of Friedman’s curves often poses the impossible question of the time of onset of labour and the position of the first examination along the slope of the latent phase.

These problems can be overcome by referring the admission dilatation to the following nomograms of cervical dilatation in primigravidae (see Fig.). Patients admitted in labour are allocated to one of the following cohorts of admission dilatation and the coccigraphic progress plotted: 0-2 cm, 3-4 cm, 5-6 cm, 7-8 cm, 9-10 cm.

Currently we are working on the assumption that if the patient’s coccigograph reaches two hours to the right of her expected slope augmentation with oxytocin is needed. If this is a fair premise it seems from our preliminary observations at the Birmingham Maternity Hospital that approximately 30% of primigravidae who enter labour spontaneously will need acceleration.

We believe that these coccigmetric definitions of normal progress offer a precise indication of primigravidae who will need stimulation and, perhaps equally, those that are normal and do not.—We are, etc.,

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Vasectomy in the Surgery

Sr.—Dr. E. Seiler (28 October, p. 232) describes various difficulties which he has encountered as a general practitioner attempting vasectomy under local anaesthesia in his surgery, and which have led him to the conclusion that vasectomy should be carried out only under general anaesthesia and is an unsuitable procedure for general practice. May I comment on the points he has raised?

Difficulty in locating the vas is a matter of experience, and experience can be obtained before attempting vasectomy. Every male patient has a vas which can be spotted a few minutes following every day. The mobility of the vas can be a problem, but the “needle fixation technique” obviates it. This method consists essentially of inserting a hypodermic needle attached to 2-ml syringe charged with local anaesthetic through the scrotal skin, under the vas, and out again through the scrotal skin about 1 cm away, so that the vas is accommodated by the needle, and the vas transected before tying the ligature.

Vasectomy under local anaesthesia is not completely painless, but almost invariably the patient says it was less painful than he expected. A very common remark is that it was “less of an ordeal than going to the dentist.” This is probably true, as a nervous patient 5 or 10 mg of diazepam can be given intravenously as premedication. Local anaesthesia is safer than general anaesthesia, is preferred by many patients, and does not require the services of a specialist anaesthetist.

Potential demand for the operation in Britain must be at least half a million. If the operation becomes a general practice procedure it is difficult to see how the demand can be met.—I am, etc.,

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1 Hobbs, J., Journal of the Royal College of General Practitioners, 1972, 22, 583.

Criteria for Free School Milk

Sr.—Dr. B. L. D. Phillips (28 October, p. 229) deserves strong support for his letter drawing attention to the need for measuring weight in assessing a child’s nutrition and health. Although of course many factors affect body weight, it remains the most useful practical measure of nutritional state and therefore is extremely valuable in supporting the clinical decision to prescribe the issue of free school milk.

It is inevitable that measurements made on children in school cannot be entirely accurate because clothing and weights cannot be standardized. Therefore an ordinary spring scale of the bathroom type is all that is needed, since this instrument can be readily calibrated.

It is of course desirable that uniform reference standards should be used for judging whether or not a child is under weight. For this purpose we recommend the so-called "international standard" which was proposed by the Nelson’s Textbook of Pediatrics (Philadelphia, Saunders, 1969), since these are widely used by the World Health Organization. In my view careful consideration should be given to any child who is below the 10th percentile for age.—I am, etc.,

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I.U.D. and Uterine Bleeding

Sr.—Excessive uterine bleeding is the main reason for the unsuitability of intrauterine contraceptive devices. The reason why they cause bleeding is uncertain, but the investigation we report here suggests that there is a direct action by a water-soluble constituent of the I.U.D. on blood clotting. I.U.D.s are made of plastics and water-soluble traces of some of these affect biochemical functions.

We have placed two Lippes loops (India) and one Antigon (Denmark) in glass bottles each containing 50 ml normal saline in glass-distilled water (hereafter called “I.U.D. fluid”). Glass bottles of identical quality, size, and shape containing only 50 ml saline (hereafter called “control fluid”) were used as controls. After 1-3 days 1 ml I.U.D. fluid was removed from each bottle and put into a glass tube of 1 cm diameter. A similar quantity of control fluid was put into another tube and then 1 ml of blood was added to each. Every blood sample thus provided one paired study. Clotting was observed at 15-second intervals. In each pair the clotting time in the control was taken as a base line against which to express the clotting time in the corresponding I.U.D. fluid. A control paired study was omitted by putting only control fluid in each of two glass tubes to which 1 ml of blood was added. Venous blood was taken by sterile siliconized syringe and needle from 161 apparently normal women (aged 15-55 years) attending the hospital outpatient department. Blood from adult dogs was used in two groups. Chromo-sodium and distilled water were used for cleaning the glassware.

The number of cases in which the clotting time was delayed was significantly greater in the experimental paired study groups than in the corresponding control paired study groups. Clotting values by the prothrombin test were 0.01 and 0.05 for human and dog blood experiments respectively. The clotting time was prolonged by 1 ml I.U.D. fluid in many more instances than it was shortened. Samples of saline in which a Lippes loop had been left for 18 months, three days, and one hour respectively interfered with blood clotting to the same extent. This could be explained by a low solubility of the water-soluble I.U.D. component. The contribution of this to the contraceptive effect of I.U.D.s might be worth studying.

I.U.D. fluid delayed blood clotting in about 48% of cases. About 40% of women who use an I.U.D. suffer from excessive