Thyrotoxicosis in Pregnancy

Sir,—In your leading article (14 September, p. 631) pregnancy is categorically included as a contraindication to operation for thyrotoxicosis. This takes no account of considerable evidence to the contrary and may be misleading. Contraindications to thyroidectomy during pregnancy will not be questioned, as, for example, recurrent thyrotoxicosis following previous thyroidectomy, an advanced stage of the pregnancy, and unwillingness of the patient to accept operation. However, it should be noted that indications to operation are also recognized, even by clinicians with a strong preference for medical treatment, and these include difficulties arising during medical treatment which makes further treatment with antithyroid drugs undesirable, irresponsibility and lack of co-operation on the part of the patient, and the prospect of a major obstetrical operation later in the pregnancy.

Mildly thyrotoxic pregnant patients are usually best treated medically, but opinion is sharply divided on the medical and surgical treatment for the more severe forms of thyrotoxicosis. Satisfactory results are claimed for both methods; the results reflect a high standard of treatment, but they are not suitable for statistical comparison. No one type of treatment is best for all cases, and in coming to a decision particular attention should be given to the quality of medical and surgical care available and the facilities for treatment. Subtotal thyroidectomy competently performed carries no greater risk to the pregnant than the non-pregnant patient, and the liability to miscarriage is not increased. The patient is quickly restored to a euthyroid condition, and the subsequent course of the pregnancy continues as for any other euthyroid patient. Operation is commonly advised in place of anti-thyroid drug therapy for the young, non-pregnant, thyrotoxic patient; during pregnancy it has the additional advantage of avoiding many of the maternal and foetal complications which may arise during medical treatment with these drugs.

Far from being a contraindication subtotal thyroidectomy during pregnancy under satisfactory surgical conditions may well be the treatment of choice for thyrotoxicosis of moderate or severe degree.—We are, etc.,

PHILIP R. HAWE.

HAROLD H. FRANCIS.

Liverpool.

Deep Vein Thrombosis

Sir,—Mr. N. L. Browne and colleagues' paper (21 September, p. 717) must not go unchallenged. As in a previous publication on this subject (9 December 1967, p. 596), they grossly underestimate the risk of pulmonary embolus. Admittedly rapid dissolution of a venous thrombus is likely to leave a normal vein, and will probably prevent the "post-phlebitic leg syndrome." One must question very seriously, however, the safety of leaving a large thrombus poised in the iliac vein or inferior vena cava, quite ready to travel through the pulmonary artery with no mechanical or pharmacological agent to prevent this.

Concerning the actual aim of Mr. Browne and colleagues' study, I find the "before and after" films not comparable in terms of density of dye and timing for phase of venous filling. I submit one can hardly draw any conclusions from the films shown, except to stress the frequency of thrombus in the iliac veins and/or inferior vena cava in patients with a swollen leg. The attempted removal of this thrombus with a balloon catheter from the groin is probably always incomplete, and the addition of femoral phlebectomy, both of which have previously suggested by Mr. Browne, really would not be of further help as the dangerous clots remain higher in the venous tree. The infusion of streptokinase may well accelerate a natural process but cannot be relied upon to guard against embolus.

Partial interruption of the inferior vena cava with a Miles or similar clip is a small operation. Postoperative pressure changes in the inferior vena cava are usually small, and if heparin is used from the time of surgery to full ambulation, and elastic support worn subsequently for four to six weeks, stasis changes are minimal or non-existent. Although surgery in the U.S.A. may be too difficult for such an operation, the surgical attack outlined is the only logical course, as no other form of therapy will provide a 97-98% guarantee against pulmonary embolus.—I am, etc.,

JOHN THURSTON.
Westminster Hospital.
London S.W.1.

Hyperbaric Oxygen in Carbon Monoxide Poisoning

Sir,—At 11 a.m. a woman aged 53 was found unconscious at home with her cat dead in the same room. The cause of this accident was a coke fire which had been lit for the first time this autumn and which had a blocked flue pipe. Her carboxyhaemoglobin concentration was 60% and that of the dead cat 90%. She was taken to hospital and carbon monoxide and 5% carbon dioxide by face mask. At 11 p.m., 12 hours after being found, she had bilateral fixed and dilated pupils and bilateral extensor plantar responses. Only at this point was hyperbaric therapy considered, and she was referred to the unit at Westminster Hospital. I treated her for two hours at a pressure of 2.5 atmospheres absolute of pure oxygen (an inspired 

P, of about 1,700 ml. Hg). During the session in her regained consciousness, and a few hours later was fully orientated, though a little drowsy, and without neurological deficit.

This woman is very lucky to be alive. She is one of several patients who have been treated with hyperbaric oxygen here for carbon monoxide poisoning. A common feature is that hyperbaric oxygen is only considered as a terminal therapeutic measure. I write to draw attention to the value of hyperbaric oxygen in carbon monoxide poisoning, and to emphasize the value of immediate transfer to a hyperbaric chamber in these cases. Delay can only jeopardise the chance of a successful outcome, which was nearly denied the patient in the instance I record.—I am, etc.,

JOHN THURSTON.
Westminster Hospital.
London S.W.1.

References

Multiplicity of Units

Sir,—The paper by Drs. N. Thalassinos and G. F. Joplin (5 October, p. 14) illustrates well the multiplicity of units of quantity and concentration in current use and that these are also confused in the reader.

Administered phosphate is expressed in grammes and in moles of its salts, and also in grammes and moles of elemental phos- phorus. But serum inorganic phosphate is stated in mEq/l. (probably on the assumption of a pH of 7.4, so that a definite mean valency of 1.8 could be assigned to the phosphate ion in serum). Calcium intake is given in mg., but urinary calcium in mEq/l and serum calcium in mEq/l. (Presumably the valency of calcium was taken to be 2, although it is known that not all the calcium in serum is ionized.) Serum potassium and bicarbonate ions are quoted as mEq/l, but oral potassium in mEq. Blood urea is measured in mg./100 ml.

Clarity would surely be best served by the least variety of terms. May I suggest again that molar units are preferable? They correspond exactly with equivalents in the commonest case, the univalent electrolytes; they involve no assumption about the degree of ionization or effective valency of such ions as calcium and phosphate; they are easy to use for weighing out salts, because the molecular weight of a salt—allowing for its state of hydration—is printed on the label; they could also be adopted for non-electrolytes, including salts, with a gain in physicochemical significance.

Weight units must obviously be retained for substances whose molecular weight is unknown. The recently fashionable mN for electrolyte concentrations has no advantage over mN or mEq/l, and invites confusion with the regrettable but still persisting usage of "normal saline" for a solution of NaCl containing 9 g./l. Incidentally, the litre, which is still to be allowed in conjunction with g./l. (the international unit), could with benefit displace 100 ml. completely as the denominator of concentration.—I am, etc.,

ADOLF SINGER.
Mount Sinai School of Medicine.
New York, U.S.A.

References