venous drip. At the moment of entry into the chest, the patient is in considerable distress as exhibited by intense sweating and hypoxia. However, the anaesthesiologist calms the patient and reminds him of the previous week's training in breathing control.[1] There is no untoward mediastinal shift and any alteration in blood pressure and pulse rate is soon corrected. Similarly, on closing the chest, the patient reinflates the lung voluntarily under the exhortations of the anaesthesiologist. Acupuncture needle stimulation was omitted for periods of some minutes during the procedure of pneumonectomy with no untoward effect on the patient.

Unfortunately I was unable to see the whole operation of pneumonectomy from beginning to end but I did see a few gastrectomies in toto where coeliac plexus blocks were performed with local anaesthetics as a prelude to definitive procedures. I would regard the acupuncture needle as adjunct therapy in operations where there are other factors such as preoperative sedation, local anaesthesia, and pethidine which also play an adjunct part. Finally, one's faith in the politicians and politics of the country plays a very important part indeed.—I am, etc.,

IAN CAPPERAULD

Dalkeith, Midlothian

1 Capperauld, I., *Surgery, Gynaecology, and Obstetrics*, 1972, **135**, 440.

Lithium Therapy and Hypothyroidism

SIR,—We were interested to read the report by Dr. J. Candy (29 July, p. 277) and are impressed by the similarity between his experience and our own.

Our patient, a 29-year-old male schizophrenic of ten years' standing, had received chlorpromazine 600 mg and lithium carbonate 1,600 mg daily for 22 months prior to our seeing him. Over this period he had shown progressive weight gain and on examination was obviously myxoedematous. There was no goitre or cardiac failure. The P.B.I. was 1·5 μg/100 ml (normal 3·5 to 6·5) and the radioiodine uptake 4% at 24 hours (normal > 20%). The serum cholesterol was 420 mg/100 ml and the electrocardiograph showed a low voltage pattern with a sinus bradycardia of 48/min. The serum lithium was 1·9 mEq/litre. Tests for thyroid antibodies were negative. The chlorpromazine and lithium were withdrawn and treatment with L-thyroxine begun. Within three months the patient was clinically euthyroid, and thyroxine was discontinued. There has been no clinical deterioration in the subsequent two months.

In the absence of other causes of hypothyroidism and the lack of deterioration since discontinuing thyroxine we consider that our patient exhibits lithium-induced hypothyroidism similar to that described by Dr. Candy. We think that this had its onset soon after starting lithium therapy. The two unusual aspects of our patient are that the radioiodine uptake was reduced and that he did not have a goitre. Other recorded instances of this condition have emphasized these two features and attribute the hypothyroidism to inhibition of hormone production with a concomitant increase in T.S.H. secretion causing the goitre.[1] It would seem likely that minor degrees of lithium-induced hypothyroidism are more common than was hitherto considered and any undue weight gain in patients on such treatment should arouse this suspicion.—We are, etc.,

C. R. BIRCH
D. J. JOLLEY
G. G. HAY
I. W. DYMOCK

University Hospital of South Manchester, Manchester

1 Granville-Grossman, K., *Recent Advances in Clinical Psychiatry*. London, Churchill, 1971.

Dilatation of Colon in Crohn's Disease

SIR,—I would like to report a case of toxic dilatation of the colon occurring in Crohn's disease. Nine previous cases have been described[1-4] and 14 other possible ones,[5,6] but the diagnostic criteria were not convincing.

A married woman aged 22 was admitted to hospital because of worsening symptoms from her chronic colitis, which had been present for two years. She had been treated with bowel sedatives, dietary supplements, and tetracosactrin 0·2 mg twice a week. She took Minovlar as an oral contraceptive. She improved with bed rest until the 10th day after admission, when she developed increasing lower abdominal pain with distension and tenderness. The pulse rose to 110/min and the blood pressure fell at one time to 90/50. Erect and supine abdominal *x*-ray pictures showed pathological dilatation of the colon. She recovered with intensive medical measures over the next 24 hours, and one week later underwent total colectomy with ileorectal anastomosis. Histological examination showed appearances of Crohn's disease.

I am grateful to Mr. J. L. Dawson for permission to publish details of a patient under his care, and to Drs. C. W. Elston and B. C. Morson for their opinions on the sections.—I am, etc.,

A. W. CLARK

King's College Hospital, London S.E.5

1 Schachter, H., Goldstein, M. J., and Kirsner, J. B., *Gastroenterology*, 1967, **53**, 136.
2 Javett, S. L., and Brooke, B. N., *Lancet*, 1970, **2**, 126.
3 Fielding, J. F., and Truelove, S. G., *British Medical Journal*, 1972, **1**, 310.
4 Brooke, B. N., *British Medical Journal*, 1972, **1**, 310.
5 Hawk, W. A., and Turnbull, R. G., *Gastroenterology*, 1966, **51**, 802.
6 Farmer, R. G., Hawk, W. A., and Turnbull, R. G., *American Journal of Digestive Diseases*, 1968, **13**, 501.
7 McGovern, V. J., and Goulston, S. J. M., *Gut*, 1968, **9**, 164.

Contraception and Infertility

SIR,—Dr. J. Slome (23 September, p. 770) may be amused to learn that he caused the general-practitioner joint author (K.L.O.) of our "Second Opinion, Please" article (9 September, p. 637) to rush out to buy a bottle of glycerin, the contents of which he has been happily transferring to various surfaces using Spencer-Wells forceps. However, we must admit that our use of the phrase "plug of mucus" was misleading. "The mucus occupying the cervical canal" would have been better.

Whatever instrument is used to remove mucus it must be clean, dry, and warm. When I (K.L.O.) started performing postcoital tests in my surgery disposable syringes were not available, and working with a sterilizer not an autoclave it was very difficult to get any tubular instrument both clean and dry. Experiments followed with the extremely limited range of instruments available and it was found that enough mucus for microscopy was retained between the blades of a Spencer-Wells forceps closed but not clamped.

That pregnancy may not result for a couple in whom no abnormality can be demonstrated is a well-known fact. A general practitioner tries always to tell the truth, but the whole truth would often be confusing and sometimes unkind. Certainly to inform the wife at that stage of the investigation that she might do better were she to change her supplier of spermatozoa would have been unhelpful.

The growing number of post-termination infections leading to tubal blockage referred to in our paper relates to legal terminations carried out since 1968. We do not, of course, suggest that there were fewer infections after illegal abortions before 1968, because there are no reliable figures on either the numbers of such abortions or the incidence of postabortion infection. However, since a proportion of all terminations will be complicated by infection it seems reasonable to suppose that the steady rise in the number of legal terminations will be accompanied by a corresponding rise in the number of blocked tubes. An important aspect of this problem is that early termination is much less likely to be complicated by infection than late termination, so when this operation is indicated it should be performed without delay. Outpatient termination on a day-case basis has been carried out for some time at King's College Hospital[1] and at Lewisham Hospital.[2] The infection rate is low and hopefully the incidence of tubal blockage will be equally so. The best prophylaxis, of course, remains the prevention of unplanned pregnancy by adequate contraceptive measures in the first place.—We are, etc.,

K. LESLIE OLDERSHAW

London S.E.15

MICHAEL BRUDENELL

King's College Hospital, London S.E.5

1 Lewis, S. C., Lal, S., Branch, B., and Beard, R. W., *British Medical Journal*, 1971, **4**, 606.
2 Loung, K. C., Buckle, A. E. R., and Anderson, M. M., *British Medical Journal*, 1971, **4**, 477.

Placental Haemangioma

SIR,—With reference to Dr. L. B. D. Courtney's letter (23 September, p. 769), we have seen a similar haemangioma of the placenta (chorioangioma) recently. A 24-year-old primigravida presented with acute hydramnios at 28 weeks. Four weeks earlier she had been observed to be large for dates. She proceeded directly to a vaginal delivery of a male infant weight 1,130 g who survived for twelve hours. Projecting from the fetal surface of the placenta was a tumour 3 cm in diameter, which was confirmed by histology as a haemangioma. It can be seen on the sonogram (Fig. 1) as a protrusion from the placenta close to the midline alongside the fetal trunk. The gross hydramnios is also apparent.

The human placental lactogen levels in this patient were 8·5, 5·6, and 3·5 μg/ml at 19, 24, and 26 weeks respectively (Fig. 2). We know of no previous recorded instance of placental function tests in relation to these malformations, and it is difficult to envisage how such a comparatively small tumour can exert influence on placental function. However, it may be speculated that the initial ele-

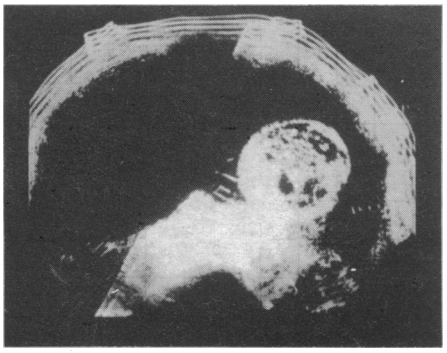

FIG. 1—Sonogram. Transverse B-scan 2 cm below umbilicus.

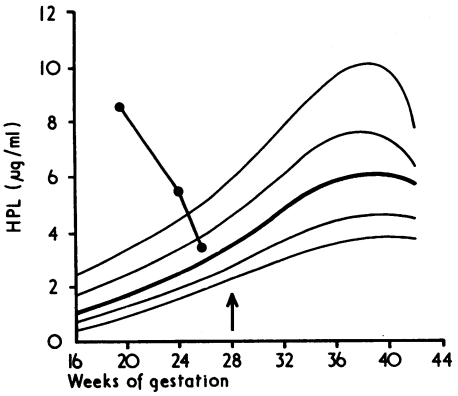

FIG. 2—Patient's human placental lactogen levels (normal range ± 2 S.D. also shown). The arrow refers to time of delivery.

vated levels of human placental lactogen might have been due to the tumour itself and that the fall was due to interference with the blood supply by the increasing pressure of polyhydramnios. This decline in placental function may have contributed to the onset of premature labour.—We are, etc.,

P. A. R. NIVEN
H. J. TERRY
A. T. LETCHWORTH
T. CHARD

St. Bartholomew's Hospital,
London E.C.1

Conscientious Objection to Abortion

Sir,—The injustice caused to patients by the present interpretation of the abortion law has been brought to the attention of the profession and the public. However, the injustice inflicted on a minority of the profession has been given scant attention.

In the eight years since graduating from a London teaching hospital I have managed to do the "right jobs," get the required fellowship and membership, and even obtained the B.T.A. (Been To America). However, I now discover that to have a conscientious objection to abortion on demand precludes one from continuing to practise in the specialty in this country. The head of department of a teaching hospital stated to me at a recent appointments board that there was now no place for a gynaecologist with a conscientious objection to abortion on demand to practise within the National Health Service and "you should cut your losses and emigrate." Other consultant advice has been to take up urology or venereology or to go into general practice "if you really want to stay in the United Kingdom."

Apart from not wishing to leave my home and family, I do not see why I should waste eight years of training and experience and change to another specialty. Mine is not an isolated experience and I have personal knowledge of six other doctors in a similar case who have either left the country or have been forced to enter general practice. Is the profession aware of this situation and does it really approve? Surely even those who have a liberal view of the abortion law must recognize the place of conscience in the practice of good medicine. I have no desire to impose my personal views on my patients or my colleagues; neither do I want them to impose theirs on me. If the profession and the public cannot see the serious implications of this situation I would do better to emigrate.—I am, etc.,

ROBERT L. WALLEY

St. Peter Port,
Guernsey, C.I.

The Artist's Eye

Sir,—Dr. Ann J. Gower's (2 September, p. 586) misapprehension about the frequency of developmental colour deficiency is a common one. At the same time, there are certain vital points often omitted in carrying out the Ishihara or any other "pseudo-isochromatic" test. The first is the light by which the test is viewed. We may condemn any test in tungsten lighting owing to its strong imbalance on the red side, unless heavily filtered. Daylight (which must not include direct sunlight) is ideal—if only it were consistent in brightness and in spectral quality. The old photographic rule not to take pictures within two hours of sunrise or sunset arises from the heavy bias to the red end owing to atmospheric filtering out of the blue rays. Electric light however, is consistent in its brightness and its spectral composition is acceptable if properly balanced. This can be done by heavy filtering of tungsten lighting (holding back the longer wavelengths to balance with the blue end) or by choosing a specially computed fluorescent tube.

Most fluorescent tubes have been made to give different effects (such as warm sunlight) but there is one, called "Natural Daylight," which gives a reasonable approximation to diffused daylight. It is available in a suitable form for a colour vision test in the Veri-Vide Colour Matching Cabinet (Leslie Hubble Ltd., Woodhouse Eaves, Leicester) and as the Macbeth Daylight Lamp. Both cost in the region of £35 and are portable. A xenon-discharge lamp was designed for me and meets Crawford's specification.[2] It is of scientific value but is too costly and is not portable for clinic work.

Whatever lighting is used it should not reflect off the test into the eye. This is best prevented by having the light strike the plate at 45° and reading the plate at right angles to the eye. Less satisfactorily (because of foreshortening of the plate) these angles can be reversed. Different dyes have different reflective properties, and colour-defective people have come to learn that if they make use of this they can see a difference between what other people tell them are different colours—though it is really not a difference in hue but in other light properties of the dye. Hence they must not be permitted to tilt the book, their head, or the lamp about till they can see the reflections. Book, lamp, and head must all remain steady.

Finally, it is misplaced sympathy to say, "Oh, he's nearly got it right." A pilot who lands his plane correctly 9 times out of 10 should still not be allowed that one chance in ten of getting it wrong. As Pickford says,[3] the problem is not that they can sometimes get it right but they may sometimes get it wrong.—I am, etc.,

W. O. G. TAYLOR

Heathfield Hospital,
Ayr

1 Lakowski, R., *British Journal of Physiological Optics*, 1966, 23, 186.
2 Taylor, W. O. G., *Annals of Ophthalmology (Chicago)*, 1970, 2, 184.
3 Pickford, R. W., *Individual Differences in Colour Vision*, London. Routledge and Kegan Paul, 1951.

SIR,—It is interesting that your leading article (19 August, p. 434) and correspondents come up with differing estimates of the incidence of defects in colour discrimination even if a standardized test is used. Note that the correct term is "colour defect" not "colour blindness." The accepted figures are, as you say, 7-8% of males and 0·4-0·5% of females.

The National Childs Bureau gives 6% of boys but over 1% of girls, the latter being twice the accepted figure. Dr. R. H. G. Charles (30 September, p. 826), confining himself to boys, finds many more defective at a grammar school than at a secondary modern school. These discrepancies are so great that either the test is being severely mishandled or they are real. Dr. L. J. Bacon (30 September, p. 826) quite rightly makes a plea for earlier discovery of defective colour vision. A test for young children and the handicapped has recently been produced by C. Davis Keeler, of 21-27 Marylebone Lane, London W1M 6DS, entitled the Guy's Hospital colour vision test for young or handicapped children. It is hoped that its general use may not only enable the common defects to be found earlier in life—that is, at school entry—but will also enable more valid comparisons to be made between groups of children such as the handicapped, the educationally subnormal, those of different races, and so on.—I am, etc.,

P. A. GARDINER

Guy's Hospital,
London S.E.1

The Porn Industry

SIR,—I enjoyed Dr D. R. Cargill's most entertaining letter (14 October, p. 113) but I feel that it should not go unchallenged. He suggests that Neville Heath's sadistic murders were due to the brutal floggings he either received or administered at his public school. No doubt Heath would have readily agreed to such an interpretation, for he was a pathological liar and a confidence trickster who had been previously in trouble for claiming military rank to which he was not entitled and who introduced himself to his second victim as Group Captain Rupert Brooke. I have no evidence that he ever attended a public school and indeed most of his crimes are more commonly associated with those who wished they had or falsely claimed they did.

When one attacks a vice (I shall not use