SIR,—We have read with interest the article by Mr. E. E. Rawlings and Mr. B. Balgobin (29 March, p. 727) and agree that their results of laparoscopic sterilization are depressing and raise doubts about the usefulness of this procedure. We feel, however, that there are several reasons for the high incidence of complications and that it would be a pity to decry the operation on the basis of such a small number of patients and without analysing more carefully the reasons for this high complication rate.

Firstly, though the operators were experienced gynaecological surgeons, we do not think they could be called experienced laparoscopists. In 1971, 121 laparoscopic sterilizations were performed by "three gynaecological teams," and if a team is presumed to consist of a consultant and registrar this means that each operator performs an average of only 20 laparoscopic sterilizations per year. This is simply not enough cases to achieve expertise. There is an oft-repeated aphorism that laparoscopy becomes easy after the first 100 cases; these operators might take five years to gain that experience (which is the time after which two of the teams gave up doing the operations).

The occurrence of four pregnancies (1·6%) after laparoscopic sterilization does not compare unfavourably with the frequently quoted incidence of 1% following open sterilization. The authors do not state whether the patients had dilatation and currettage carried out at the time of operation to exclude an early pregnancy, whether the tubes were found to have recanalized, or whether the wrong structures (for example, the round ligaments) had been cauterized and severed.

The high incidence of laparotomy in 1971 deserves further analysis. There were four cases of haemorrhage from the mesosalpinx; in our experience this can almost always be successfully arrested by cautery using the laparoscope. Laparotomy would not be the universally agreed treatment for severe postoperative pain (one case) or for pelvic abscess (two cases). All patients having laparoscopy should be warned of the possibility of a laparotomy in case of technical difficulty, but if patients are carefully selected it should not be necessary in many cases; an incidence of 2·4% does not seem too excessive.

It is not clear why their patients remained in hospital for an average of 3-4 days, but in this department about 650 laparoscopic sterilizations are performed annually on a day-case basis, and patients find this a great advantage. The economic advantage is obvious. We hope shortly to publish the results of one year's experience of day-case laparoscopy (about 700 cases), which we think will give a very different impression of the usefulness and patient acceptability of this operation.—We are, etc.,

MARCUS SETCHELL
JANET LAKE

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SIR,—The paper by Mr. E. E. Rawlings and Mr. B. Balgobin (29 March, p. 727) on this subject is timely and useful in that it draws attention to the problem of the teaching and practice of laparoscopic operations. In 1962, before the advent of fibreglass cables, Palmer[1] wrote that it was essential to have done 500 diagnostic laparoscopies before proceeding to laparoscopic surgery. After the introduction of fibreoptics he advocated at least 100 preliminary laparoscopies.[2] To this I would add that six months' apprenticeship in a unit performing 20 laparoscopies per week is an essential part of acquiring the trained hands needed for laparoscopic sterilization.

Shepard[3] in a large review showed that laparoscopic sterilizations were preferable to vaginal or abdominal procedures, both in between pregnancies and in conjunction with therapeutic abortion—1115 cases of abdominal tubal ligation with a mean complication rate of 5·6% and morbidity of 3·6%; 16 997 cases of laparoscopic diathermy division of the tubes with a mean complication rate of 1·3% and morbidity of 0·6%; and 3706 vaginal tubal ligations with a mean complication rate of 3·7% and morbidity of 6·9%. At the 1974 symposium on gynaecological endoscopy organized by the American Association of Gynaecological Laparoscopists it was reported by Phillips, Keith, and others that 146 976 laparoscopic sterilizations had a failure rate of 1·9 per 1000. In the year 1974 101 870 laparoscopies were performed by 872 operators with a laparotomy rate of 7·3 per 1000 and a total of eight deaths in the series. The acknowledged death rate for the contraceptive pill is 3-4/100 000 users. Where a laparoscopist had performed less than 100 sterilization cases his pregnancy rate was 4·6 per 1000, but those with more than 100 cases had a failure rate of only 1·6 per 1000. The extent of laparoscopic experience in Britain is as yet unknown, and there is now an urgent need for a survey of our total experience so that we can place the failures and complications in proper perspective. Most of the serious complications in the large American series of cases were due to bowel burns caused by the use of high-frequency unipolar diathermy.

It is now our avowed aim to ban high-frequency diathermy from operations, both for tubal sterilization and for division of adhesions, and to replace the instruments with isolated bipolar coagulation forceps which utilize a current of 6 V maximum, avoid conduction of current through the tissues, and heat the tubes to a maximum of 90°C. The forceps are applied in two places so that 1 cm of tube centred approximately 1·5 cm from the cornu is effectively coagulated, with limited damage to the mesosalpinx. While the metal element of the forceps is heating a continuous sound signal is heard from the electronically controlled unit. After 15 seconds the forceps automatically begin to cool, which takes about 20 seconds, and an interrupted signal is heard. When this sound ceases it is perfectly safe to move the forceps, which are now too cold to cause any damage to the bowel or other tissues by accidental contact. After this limited area of tube has been effectively coagulated a simple division of the tube is made by means of laparoscopy scissors. A prospective study is now under way in Oldham to assess the long-term effectiveness and safety of this new technique.

If gynaecologists have undergone the obligatory training in *endoscopy*, if they possess really good instruments and a light source of not less than 250 W, preferably more, plus the collaboration of an expert anaesthetist, then laparoscopic sterilization can be a rapid, safe, simple procedure requiring the patients' presence in hospital for only a few hours.—I am, etc.,

PATRICK STEPTOE

Oldham, Lancs

1 Palmer, R., *Comptes Rendus de la Société Française de Gynécologie*, 1962, **32**, 3.
2 Palmer, R., in *Gynaecological Laparoscopy*, ed. J. Phillips and L. Keith, p. 17. New York and London, Stratton I.M.C.C., 1974.
3 Shepard, M. K., *Obstetrical and Gynaecological Survey*, 1974, **29**, 739.

Medicine on Television

SIR,—Dr. R. W. Reid (29 March, p. 732) appears to be one of those who believes that a medical training is not necessary for the understanding of medical problems. This is certainly a view held, particularly by some intellectuals, and just occasionally one meets someone who justifies it. Others, including non-medical scientists, may have quite absurd notions about their deranged bodily functions. If this lay view is correct, then doctors are wasting many valuable years in their education and training, and there should be less expensive ways for the country to produce them. They could be "to a large extent" self-taught, as Dr. Reid incorrectly (and, one might say, irresponsibly) suggests they are already.

In none of the other professions he mentions has Parliament taken such trouble, for more than 100 years, to try to protect the public from those who are not "duly qualified." Just how it might protect millions of T.V. viewers from those who may not be able to distinguish good from bad medical advice is a serious problem which, one hopes, the Merrison Committee may have considered.

Indeed, Dr. Reid writes in his second paragraph about "right" and "wrong" medical advice. How does he know the difference, particularly where clinical problems are insufficiently susceptible to rigorous scientific determination of the truth? Is he qualified to distinguish the doctor giving the "right" advice from the other? How do he and Messrs. G. Massey and R. Bates (p. 732) know whether they have got even their facts right? In short, are they *qualified* for the responsibility they undertake and which Dr. Reid makes much of? If not, the charge of irresponsibility remains.

Doctors are, thank goodness, vigorously critical of each other. We are perfectly used to others joining in, but we do like to know their qualifications—that is no more than we ask of each other.—I am, etc.,

JOHN POTTER

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Serum Immunoglobulins in Herpes Virus Infections

SIR,—Alterations in serum immunoglobulin levels in the three main antibody classes in various viral infections, though described, are not consistent. Thus Zanussi and Medina[1] reported a significant increase of both IgA and IgM levels in infectious hepatitis, of IgM alone in mumps, and of IgG alone in postnatally acquired rubella. We have recently observed a very low total IgA level in a case of genital herpes simplex

Case No.	Age (Years)	Sex	Day of Illness	Presenting Features	Additional Observations	*Immunoglobulin Levels (% M.N.A.)		
						IgG	IgA	IgM
1	17	F.	14	Sore throat, cervical lymphadenopathy	Persistent H.S.V. excretion in urine. History of recurrent herpes.	155	220	210
2	19	F.	5	Genital herpes (persisting for 16 days)	H.S.V. isolated from genital lesions. Fourfold C.F. antibody rise to H.S.V.	66	34	62
3	5	M.	20	Erythema multiforme	Primary H.S.V. infection. Sibling with herpes labialis.	72	38	100
4	68	F.	N.K.	Atypical purpuric varicelliform rash	Carcinoma of cervix. Treated with cyclophosphamide 2 months previously; on steroids. >4-fold C.F. antibody rise to H.S.V.	68	24	20
5	14	M.	26	Probable herpes encephalitis	C.F. titre to H.S.V.: serum, 80/320 (acute/conv.); C.S.F., 12.	62	125	115

*Normal limits: IgG, 54-170% mean normal adult value (M.N.A.); IgA, 45-172%; IgM, 50-180%.
H.S.V. = Herpes simplex virus. C.F. = Complement fixation. N.K. = Not known.

infection showing a poor response to treatment with local idoxuridine. The occurrence of low serum IgA levels in recurrent herpes simplex infections has been previously reported by Tokumaru.[2] He also speculated on the association of complications with a deficiency of specific IgA. No correlation between the presence or absence of secretory IgA and recurrent herpes infections was, however, noted by other workers.[3,4] Our own finding and these reports prompted us to examine IgG, IgM, and IgA levels in a few more sera from patients with evidence (serological or by virus isolation) of current herpes infection.

In the few cases we have studied by a standard technique using Hyland Immunoplate III (see table) three out of five patients had considerably reduced serum IgA levels, one having in addition a low IgM level (Case 4). Interestingly, two of the three patients with low total IgA levels had generalized skin manifestations (erythema multiforme (Case 3) and an atypical varicelliform rash (Case 4)). The findings in the child with erythema multiforme might, however, reflect an age-associated immaturity of the IgA system.

This is a very small series of cases from which no definite conclusions can be drawn. We would, nevertheless, be very interested to hear whether other workers have made similar observations.—We are, etc.,

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1 Zanussi, C., and Medina, F., in *Gammapathies, Infections, Cancer, and Immunity*, ed. V. Chini, L. Bonomo, and C. Sirtori. Milan, Carlo Erba, 1968.
2 Tokumaru, T., *Journal of Immunology*, 1966, **97**, 248.
3 Douglas, R. G. jun., and Couch, R. B., *Journal of Immunology*, 1970, **104**, 289.
4 Centifanto, Y. M., Little, J. M., and Kaufman, H. E., *Annals of the New York Academy of Science*, 1970, **173**, 649.

Potentiation of Tardive Dyskinesia: Possible Drug Interaction

SIR,—Like others who use depot phenothiazines, I am concerned about the side effects—for example, tardive dyskinesias. Our Modecate (fluphenazine) clinic,[1] has 380 outpatients and there are 20 with this type of dyskinesia. The suggestion of Dr. P. M. O'Flanagan (1 February, p. 269) to use clonazepam will be gratefully evaluated.

Recently three patients who have been on fluphenazine decanoate developed extrapyramidal side effects (two with Parkinsonism and one with akathisia), which responded to benztropine. Some months later all three developed the classical features of tardive dyskinesia. Treatment of such dyskinesias is difficult; often it is worsened by anticholinergic anti-Parkinsonian drugs. One explanation may be that benztropine lowers the threshold for the appearance of these dyskinesias which, combined with the increased responsiveness of dopamine receptor sites due to the induction by the phenothiazine of denervation hypersensitivity,[2] produces this syndrome. There is, of course, a need for critical assessment of this possible interaction between benztropine and fluphenazine.

I would welcome correspondence with other research groups who have had similar experiences.—I am, etc.,

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Melbourne, Victoria,
Australia

1 Marriott, P. F., *et al.*, *Medical Journal of Australia*, 1973, **2**, 957.
2 Klawans, H., *American Journal of Psychiatry*, 1973, **130**, 82.

Exfoliative Dermatitis during Treatment with Pheneturide

SIR,—We wish to report a case of exfoliative dermatitis apparently due to pheneturide (Benuride).

A man aged 23 years, a long-standing epileptic, was maintained on phenobarbitone 60 mg three times a day and phenytoin 100 mg twice daily. Phenytoin was discontinued because the patient developed gum hypertrophy and was replaced by pheneturide 200 mg three times a day in addition to the phenobarbitone. Three weeks later he developed generalized pruritus and a vesicular eruption followed within a few days by exfoliation, lymphadenopathy, and enlargement of the spleen to 3 cm below the costal margin. The white cell count was $7{\cdot}2\times10^9$/l ($7200/mm^3$), 50% of which were eosinophils ($3{\cdot}6\times10^9$/l ($3600/mm^3$)).

The pheneturide was discontinued and he was put on prednisolone 40 mg daily. Within one week of starting prednisolone treatment the lymphadenopathy and pyrexia had disappeared, the spleen was impalpable, the rash had virtually resolved, and the eosinophil count had fallen to $2{\cdot}0\times10^9$/l ($2000/mm^3$).

Exfoliative dermatitis has not previously been described in association with pheneturide. Because this drug has been recently introduced it is important to be aware of this possible complication.—We are, etc.,

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GERALD ANDERSON

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Newport, Gwent

Undiagnosed Haematuria

SIR,—Your leading article (22 March, p. 647) is reasonably satisfactory, though in the group of patients in which early positive diagnosis is not obtained the point that further reinvestigation is essential was not adequately made.

I am writing, however, to point out that the statement that "the accuracy of cystoscopic diagnosis and biopsy has been transformed by the introduction of fibreglass illumination" is totally illogical. Fibrelit illumination is no better than conventional illumination, but many people consider it to be more convenient, though I personally would not agree; and it is seriously misleading to suggest that fibrelit endoscopic equipment is essential for modern urology. If there has been any improvement it is because the eye at the other end of the cystoscope is now better trained than it used to be.—I am, etc.,

ROGER HOLE

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Medicine in the Sun

SIR,—Dr. C. H. C. Thomas describes in his Personal View (22 March, p. 678) how a hospital's refusal to admit an unconscious patient finally drove him to emigrate "to sunnier climes." The land he chose to settle in is one where for 70% of the population the infant mortality is 140 per 1000. In a survey of 3000 African children in the Transvaal Richardson[1] reported kwashiorkor or marasmus in 6%. In the Cape Town townships of Zanga, Nyanga, and Gaguletu one doctor serves 108 379 residents.—I am, etc.,

R. M. MALINS

Bewdley, Worcs

1 Richardson, B. D., *South African Medical Journal*, 1973, **47**, 688.