

puerperium is a time of special danger, as the rapid involution of the uterus may tear apart adhesions which wall-off abscess cavities thus leading to spreading peritonitis.

In view of these risks I feel therefore that a small but definite place exists for termination of pregnancy in certain patients with active Crohn's disease. Sterilization is, of course, a different matter, as alternative methods of contraception will often suffice or vasectomy may be performed on the husband.—I am, etc.,

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- 1 Lloyd-Jones, R. L., and Soltau, D. H. K., *Journal of Obstetrics and Gynaecology of the British Empire*, 1958, **65**, 811.
2 Borcham, P. F., and Soltau, D. H. K., *British Medical Journal*, 1970, **2**, 541.

shown³ to depress testicular weight in experimental animals.

The data are insufficient for meaningful statistical analysis. However, though the study is incomplete, we consider it unwise to state that at low doses anabolic steroids have no side effects.—We are, etc.,

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1 *British Medical Journal*, 1971, **1**, 104.

2 Williams, J., *The Guardian*, 23 August, 1972, p. 12.

3 Boris, A., Stevenson, R. H., and Trmal, T., *Steroids*, 1970, **15**, 61.

prescribe under the Health Service a "borderline preparation" he should be able to do so without the irritating deterrent of possible challenge by and justification to the local medical committee. Could not some acceptable formula be agreed with the Department of Health whereby E.C.10 prescriptions for nutritional supplements such as vitamins, protein, iron, and other minerals could be routinely allowable provided they were endorsed by the general practitioner with a brief clinical indication such as "probable protein deficiency—for operation"; "iron deficiency anaemia"; etc.? This would give greater freedom to the doctor but would still deter him from frivolous prescribing, and would be in the interests of the patient and of the Health Service economy.—I am, etc.,

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Anabolic Steroids in Athletics

SIR,—Self-administration of anabolic steroids by athletes is common, especially at international level. The efficacy in improving performance is not in doubt.¹ In view of the oft-repeated statement in the popular media that taken in low doses these drugs have no side effects² we feel it urgently necessary to make known some preliminary observations on a clinical trial currently taking place of their use in healthy young adults.

Ten experienced male weight-lifters, aged 19-25, who were all either contemplating the use of anabolic steroids or else had used them before, took part in a double-blind crossover trial comparing methandienone (Dianabol) with a placebo of identical appearance. The doses given were 10 mg per day (five subjects) and 25 mg per day (five subjects). The recommended dose is 2.5-15 mg per day. It is thought that doses up to 300 mg per day have been taken by some athletes. Each half of the crossover trial lasted six weeks. The men were seen and examined at fortnightly intervals, at which time blood was taken for alanine transaminase and cholesterol estimations. Side effects were seen on both dosage regimens, as follows.

Blood Pressure.—Eight subjects had rises of blood pressure, usually of the order of 5-10 mm Hg (but two men, both low dose, had rises from 130/85 to 150/110 and from 120/70 to 160/90 respectively; neither had a family history of hypertension). Though fluctuations occurred in the placebo-treated men, a paired *t* test shows the difference to be significant at the 10% level for systolic pressures and at the 5% level for diastolic pressures.

Prostatism.—One man (high dose) suffered from urinary frequency and discomfort on micturition. A midstream specimen of urine produced no significant bacterial growth.

Acne.—Two men (one high dose, one low dose) had facial acne.

Biochemical Change.—One man (high dose) was found to have an alanine transaminase of 75 units per ml after six weeks of methandienone. His pretrial alanine transaminase was 13 units per ml.

Sexual Activity.—One man (high dose) had a marked diminution of libido.

Miscellaneous.—Four subjects (three high dose, one low dose) suffered from dizziness, headache, and faintness or lethargy or both.

All side effects disappeared after stopping treatment. No side effects were seen in any subject while on the placebo. Though testicular function was not studied it should be mentioned that methandienone has been

Was it a Drug?

SIR,—Dr. A. A. Lewis suggests (2 September, p. 588) that most local medical committees would be delighted to allow prescriptions for modified foods such as salt-free butter for patients on low salt diet and starch-free foods for diabetics. I doubt whether the committees would have so liberal an attitude to something so vulnerable to abuse, since these modified foods still have the same appearance and taste as conventional foods. Dr. Lewis asks what lines of reasoning are followed by local medical committees when considering the propriety of a general practitioner's prescribing of a preparation on E.C.10. I suggest that a guiding principle may be: Will this form of treatment increase the probability of rapid cure or improvement of the patient's disease and at the same time contribute to overall economies in Health Service expenditure on the total treatment of the patient?

A familiar example of the long-sighted approach is seen in the case of the old man living alone on a small income whose diet is deficient in protein and vitamin. As you pointed out in your leading article, "Operating on the Elderly" (27 May, p. 480), such patients rarely show overt signs of malnutrition, but if they should come to operation their hospital stay is often prolonged because their protein and vitamin deficiency leads to delay in wound healing and increased liability to postoperative infection. If by correcting protein or vitamin deficiency before hospital admission for a "cold" operation postoperative stay in the ward is reduced the cost of dietary correction is well worthwhile. Ideally, the general practitioner should be able to tell his elderly, perhaps hypertensive patient to "eat more protein before you go into hospital—but don't have too much salt—and not too much carbohydrate. It's better not to be too overweight when you're having an operation." But dietetics is quite a complicated subject, especially for the men, and protein foods are expensive. Old people are often reluctant to change their eating habits, but a high-protein, low-carbohydrate, low-fat, low-sodium preparation in powder form is something the patient can and will take as a medicine—just as he will take vitamin capsules or iron tablets when prescribed.

When a general practitioner judges it to be good medicine and to be in the overall interests of the Health Service economy to

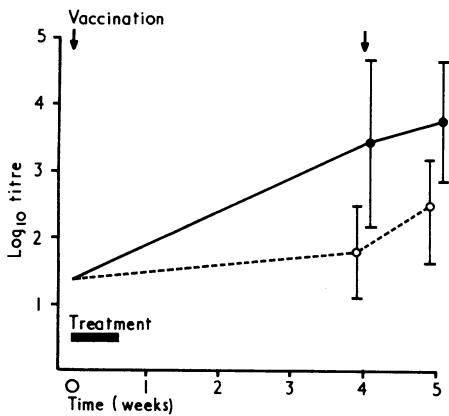
Immunosuppression by Co-trimoxazole

SIR,—We read with interest the article by Drs. P. M. Gaylarde and I. Sarkany (15 July, p. 144) about the effect of co-trimoxazole (trimethoprim-sulphamethoxazole) on phytohaemagglutinin-induced lymphocyte transformation. We would like to report here some of the results of our study on the possible immunosuppressive effects of co-trimoxazole in man, as these, in our opinion, would further indicate that the phenomenon reported by Drs. Gaylarde and Sarkany could be relevant clinically.

Despite the observation that human folate reductase is inhibited by concentrations of trimethoprim 10,000-times greater than are required to inhibit the bacterial enzyme,¹ it seemed possible that trimethoprim or co-trimoxazole could affect human cells actively proliferating, such as cells engaged in immunological responses. In mice trimethoprim has been shown to have an immunosuppressive effect comparable to that of azathioprine when tested by prolongation of skin allograft survival.² In a preliminary study trimethoprim was found to suppress the induction of contact hypersensitivity in man to dinitrochlorobenzene.³ The present study was undertaken to determine the possible effect on the antibody response of the combination of drugs in the form and dosage widely used in human medicine.

Forty healthy male volunteers from the Finnish defensive forces were vaccinated according to the routine vaccination schedule against tetanus and boosted four weeks later. Serum samples were taken before the first inoculation and four and five weeks later. Twenty individuals were given sulphamethoxazole 400 mg and trimethoprim 80 mg twice daily by mouth. The treatment was begun immediately after vaccination and lasted for four days. Twenty other individuals served as untreated controls. Tetanus antitoxin titres were determined by passive haemagglutination⁴ modified for microtitration. The sera were first absorbed with sheep red cells to remove heterophilic antibodies. The titrations were done blindly.

The results (see Fig.) show the rise of antitoxin titre in drug-treated (dotted line) and control groups (solid line) (13 and 10 individuals, respectively). Only those individuals whose initial tetanus antitoxin titres were $\leq 1:25$ are included. The mean titre in the drug-treated group is highly signifi-



cantly ($t = 4.185$, $P < 0.001$) lower than in controls.

The finding that co-trimoxazole in dosages commonly used for curing bacterial infections in man partially suppresses antibody response warrants more detailed investigation. Whether the effect is due to the combined drug or trimethoprim alone also remains to be investigated.—We are, etc.,

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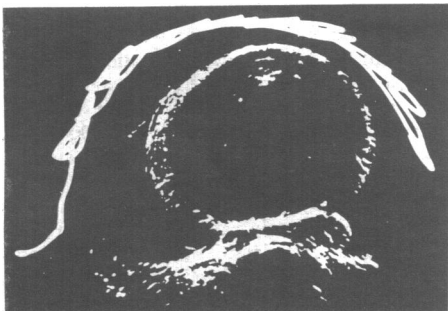
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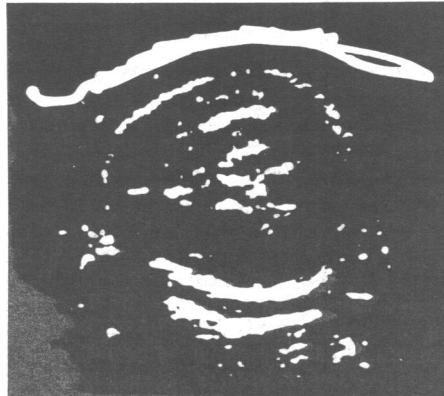
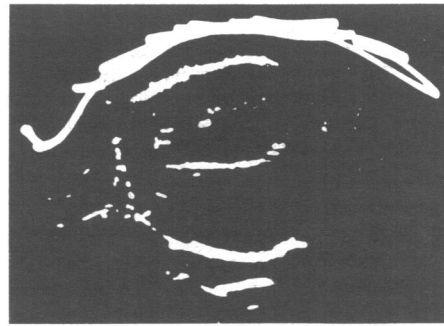
Ultrasound in Diagnosing Hydrocephalus

SIR.—Ultrasonic scanning with both B and A displays has been shown to be of value in many obstetric problems. Recently in the Walsgrave Maternity Hospital, Coventry, we have used the technique to diagnose fetal hydrocephalus.

Fig. 1 shows the sonogram of a grossly hydrocephalic fetus. This is the typical appearance when neither the lateral ventricular echoes nor the midline echo is obtain-



able. The transverse diameter of this head was 14 cm at the 34th week of pregnancy. Figs. 2 and 3 show sonograms in a patient who was referred for ultrasonic scanning at the 38th week of pregnancy after a radiograph had shown a hydrocephalic fetus. The biparietal diameter was 11.5 cm. However, the lateral ventricular and midline echoes were clearly visualized, though the ventricles appeared to be slightly dilated. In discussion



with paediatric colleagues it was decided that the baby had a reasonable chance of recovery and development. A lower segment caesarean section was performed when the head failed to descend into the pelvis in labour, and a healthy girl was delivered weighing 3,670 g. The circumference of the head was 41 cm and there was a simple occipital encephalocele. There were no other abnormalities and the limb tone seemed normal.

The encephalocele was excised after 12 days. It contained no brain tissue but the cerebellum was absent. On the 10th day the head circumference was 42.5 cm. By the 51st day it had increased to 49 cm, and a Spitz Holtzer valve was inserted. Since the operation the baby has remained well and her limb movements appear normal.

Thus it would seem that ultrasonic scanning can be used to differentiate between hydrocephalus of gross and mild degree in that if the midline echo or the lateral ventricular echoes are visualized the prognosis is favourable. This method of investigation should be further pursued in departments having suitable apparatus.—I am, etc.,

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Diagnosing Secondary Syphilis

SIR.—While Dr. I. Rose (19 August, p. 473) is to be congratulated on his acumen in diagnosing his recent case of secondary syphilis, there are some dangers inherent in the over-confident diagnosis of secondary syphilis without confirmatory serological tests.

In the past few years several patients have presented in this department, often in great distress, having been told they had syphilis when, in fact, they had a more banal condition such as tinea versicolor, pityriasis rosea, lichen planus, seborrhoeic eczema, or a skin

reaction to ampicillin prescribed for a sore throat in a case of what was later found to be glandular fever. By the time of examination many of the patients had already informed sexual contacts, family, or employers with all the resulting brouhaha.

The diagnosis of secondary syphilis is not simple, and apart from clinical examination adequate special investigations such as demonstration of *Treponema pallidum* from the lesions and at very least corroborative standard serological tests for syphilis must be carried out.—I am, etc.,

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Surgical Preadmission Clinic

SIR.—We would like to compliment Mr. D. L. Crosby and his colleagues (15 July, p. 157) on their contribution to the important problem of long surgical waiting lists. However, we would like to examine critically some of their premises and conclusions.

A long surgical waiting list cannot be defended on the ground that it will ensure that a proportion (23% in the Cardiff series) of patients placed on it will either cure themselves or go elsewhere and so reduce the demand for admission. The patients in Mr. Crosby's series who had a spontaneous cure included those with submandibular salivary adenitis, pilonidal sinus, mastitis of puberty, and anal skin tags. Many of these conditions can be managed conservatively and perhaps should not find their way on to a surgical waiting list.

Day-stay surgery or short-stay surgery are probably more effective in reducing waiting lists than a preadmission clinic. An alleged purpose of a preadmission clinic is to detect abnormalities that otherwise might not be detected until the patient had been admitted. In our experience, the proportion of patients in whom something unexpected is detected on admission is about 2%, and it was similar in the Cardiff series. It could be argued that complicating conditions could best be detected at the primary outpatient consultation or when the decision to admit for operation is made.

Does a preadmission clinic improve economic efficiency in the use of hospital facilities? Extra visits to an outpatient department add to staff and servicing costs. They may also cause the patients trouble and expense. These have to be weighed against the possible saving in hospital beds. A preadmission clinic decreases the number of days a patient spends in hospital, since the preadmission stay is shortened. If there is a short waiting list and some essential screening tests are done in the primary outpatient clinic it is still possible to admit patients on the day of operation or at least the day before.

Mr. Crosby and his colleagues do not state what use was made of the empty beds gained from the shorter preoperative stay. If they were unused little money was saved. We are currently studying the problems of increasing the efficiency of surgical admissions and we have employed the technique of preadmission examination. We find it saves little in time or money compared with the more usual form of admission. The greatest advantage has been that the house