Ultrasounding the Heart

SIR,—Your leading article (19 January, p. 83) does a service in drawing attention to the increasing use of ultrasound in diagnosis. Though there is now universal recognition of its importance and safety as a method of investigation, only a small number of hospitals are equipped to provide such a service. I hope that the Department of Health and Social Security will soon decide on a policy to equip all district hospitals with the means for providing this useful aid to diagnosis.—I am, etc.,

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Cranial Arteritis in Old Age

SIR,—May I add to Dr. W. J. Nicholson's excellent article (5 January, p. 33) by saying that in cranial arteritis the erythrocyte sedimentation rate may not rise until the patient is blind in one or both eyes. Prednisolone should be started immediately (10 mg three times daily for two days and then 5 mg three times daily) if there is any suspicious cranial symptom, such as headache and skin sensitivity related to any arterial distribution, however small, and the neurologist informed.—I am, etc.,

T. STUART-BLACK KELLY

Bath

Staphylococcal Septicaemia and C.N.S. Involvement

SIR,—The incidence of staphylococcal septicaemia has declined in recent years. We report three such cases treated at Ruchill Hospital, Glasgow, between January 1971 and February 1972. Each posed a diagnostic problem.

Case 1—A 14-year-old girl was admitted semi-comatose with meningitis, mitral incompetence, splinter haemorrhages, and petechiae. *Staphylococcus aureus* was cultured from blood and cerebrospinal fluid (C.S.F.). She responded initially to parenteral penicillin and cloxacillin but relapsed and died a week later. Necropsy showed acute ulcerative endocarditis of the mitral valve, pulmonary oedema, and emboli disseminated in the brain, spleen and kidneys.

Case 2—A 44-year-old woman presented with a right hemiplegia and motor aphasia and was thought to have herpes simplex encephalitis. Clinically she had herpes labialis, an apical systolic murmur, and a papular rash. Brain biopsy and C.S.F. were normal, but blood culture yielded *Staph. aureus*. She recovered with antibiotic therapy.

Case 3—A four-year-old boy was admitted with bilateral orbital cellulitis, meningitis, bilateral periorbital oedema, chemosis, and profuse seropurulent conjunctival discharge. The proptosed, tender right eyeball showed limitation of movement. A clinical diagnosis of cavernous sinus thrombosis was made. The C.S.F. was purulent but sterile. Penicillin-resistant *Staph. aureus* were cultured from blood and conjunctival discharge. The patient recovered with cloxacillin and cephaloridine therapy but had a residual right partial ptosis and paresis of the right external rectus muscle.

Kucers *et al.*¹ reported 33 cases of staphylococcal septicaemia from Australia. Ten presented with endocarditis and six with meningitis; three patients with cerebral embolism died. Harrison *et al.*,² reviewing the neurological presentation of bacterial

endocarditis in the Oxford region (1955-65) showed that 37 of 116 patients were admitted principally with neurological features. The mortality in this group was higher (67%) than in those without these complications (45%). He stressed the importance of bacterial endocarditis in the differential diagnosis of common and uncommon neurological syndromes. Our second patient, thought to have herpes simplex encephalitis, underwent brain biopsy before the blood culture result was known.—We are, etc.,

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¹ Kucers, A., and Bennett, N.McK., *Medical Journal of Australia*, 1964, 1, 217.

² Harrison, M. J. G., and Hampton, J. R., *British Medical Journal*, 1967, 2, 148.

Atmospheric Pollution with Anaesthetics

SIR,—I was very interested to read the article by Dr. L. Strunin and others on "Atmospheric Pollution with Halothane in Out-patient Dental Anaesthesia" (24 November, p. 459).

It is unfortunate that concentrations of halothane in operating theatres are so difficult to measure without using very elaborate and expensive methods that are not normally available in most hospitals. This, however, does not apply to trichlorethylene, which can be measured with a Draeger Sniffer equipped with the appropriate detector tube for trichlorethylene. This gives a direct reading by a colour change in the same manner as a Breathalyzer, is calibrated to detect concentrations of trichlorethylene from 10 parts per million upwards, and is reasonably cheap (about £30 plus detector tubes at 38p each).

Using such a device in the operating theatres in the Plymouth Group, I have found concentrations of trichlorethylene comparable to those of halothane reported in the above paper—that is to say, 25 parts per million (135 mg/m³) during a dental case in which the patient's head was towelled up, 50 parts per million (270 mg/m³) in a case in which the patient's head was untowelled and the sample taken near the anaesthetist's head while he was holding up the patient's chin, and 25 parts per million (135 mg/m³) overall in an unventilated operating theatre after a simulated operating session of about three hours. All with 1.5% trichlorethylene from a Boyle's machine and a gas flow of 8 l./min.

No wonder anaesthetists sometimes feel sleepy at the end of the day! This equipment can be obtained from Draeger Normaleire Ltd., Blyth, Northumberland, and I feel its use is a very convincing way of demonstrating to all staff that the pollution problem is real.—I am, etc.,

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Problems with the Papillary Muscles

SIR,—I read with interest your leading article on this subject (5 January, p. 3), but

was disappointed to see that there was no mention of the use of echocardiography. The echocardiographic appearances of both the anterior and posterior mitral leaflets in patients with ruptured chordae tendinae are well recognized.^{1,2} There has also been a report of the findings in patients with papillary muscle dysfunction following myocardial infarction.³ Impaired left ventricular function and dilatation are easy to detect with an echocardiogram and we have found that the examination has not distressed patients, even when they are severely ill.—I am, etc.,

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¹ Duchak, J. M., Chang, S., and Feigenbaum, H., *American Journal of Cardiology*, 1972, 29, 260.

² Sweatman, T. W., Selzer, A., and Cohn, K. E., *American Journal of Cardiology*, 1970, 26, 661.

³ Burgess, J., Clark, R., Kamigaki, M., and Cohn, K., *Circulation*, 1973, 48, 97.

Home Graduates Only

SIR,—In the advertisement columns of a recent issue of the *B.M.J.* (19 January, p. xxiii) under "Partnerships Available" there were 32 advertisements. Thirty of them mentioned graduation from a British university as being a qualifying condition for applying for the post. Only two mentioned that vocational training would be an advantage. Are the present occupants of general practice more concerned with the place where their applicants received their basic medical education than with any education directed to increase the expertise of the applicant in the specialty of general practice?—I am etc.,

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University of Leeds

Reactions to Immunization

SIR,—The campaign of Mr. Jack Ashley, M.P., for compensation of children presumably damaged as a result of inoculation gives cause for serious thought in the interest of both patients and doctors.

Years ago, when some of the dangers associated with inoculating unsuitable children were recognized, I formulated a series of questions which I asked of every parent. These comprised the following: (1) Has the child always been healthy and never suffered from fits or convulsions, asthma, or eczema? (2) Has he been near any infectious disease lately and is he under any form of medical treatment? (3) Is there any history of asthma, eczema, hay fever, or fits in the family? It will be appreciated that if these questions are asked slowly and clearly it takes up quite a lot of working time. My suggestion is that in every clinic or doctor's surgery where inoculations are performed a good-sized notice on the lines I employed should be clearly displayed and the clerk or receptionist made responsible for seeing that it is read. Where satisfactory replies cannot be obtained, it is advisable to avoid giving either smallpox vaccination or whooping-cough injections. As a rule tetanus and diphtheria injections can be quite safely given. Mistakes are most likely to occur when one is dealing with rather illiterate immigrants or in overcrowded clinics