

Presence of Australia Antigen in Chronic Liver Diseases

| Disease | Number of cases | Number and Percentage of Cases Au-Ag Positive | |
|---------------------------------|-----------------|---|-----------------|
| | | Complement Fixation | Immunodiffusion |
| Chronic Hepatitis* | | | |
| Aggressive | 22 | 16 (72.2) | 11 (50.0) |
| Persistent | 18 | 3 (16.6) | 2 (11.1) |
| Cirrhosis | | | |
| Posthepatitis | 17 | 6 (35.2) | 4 (23.5) |
| Cryptogenic | 43 | 13 (30.2) | 8 (18.6) |
| Alcoholic | 11 | 1 (9.9) | 1 (9.9) |
| Other Chronic Liver Diseases .. | 15 | 1 (6.6) | 1 (6.6) |

*Classified according to De Groot *et al.*²

The reasons for these findings are not clear. It is uncertain whether in Au-Ag negative cases the antigen is undetectable by means of the techniques presently available or whether other aetiological factors such as infective hepatitis virus or paramyxoviruses may be implicated. Our data, however, seem to emphasize the importance of serum hepatitis virus in the pathogenesis of chronic aggressive hepatitis and cirrhosis in southern Italy.—We are, etc.,

M. CARRELLA

C. DEL VECCHIO-BLANCO

M. COLTORTI

Institute of Clinica Medica I,
University of Naples,
Naples, Italy

¹ Prince, A. M., *Gastroenterology*, 1971, **60**, 913.
² De Groot, J., *et al.*, *Lancet*, 1968, **2**, 626.

Aluminium Containers

SIR,—Aluminium and aluminium salts have generally been considered as inert. There are scanty references to the possible dangers from aluminium. Spira¹ has written numerous papers on fluorosis and pointed out that toxic amounts of fluoride can be produced from aluminium cooking utensils. Dr. V. Parsons and others (30 October 1971, p. 273) noted the association of raised concentrations of aluminium in bone in patients with long-standing uraemia treated by dialysis and discussed its significance. Drs. H. Thurston and J. D. Swales (20 November 1971, p. 490) considered that the toxic effects of aluminium upon growth depended on phosphate depletion: their current work is on the effect of administering food containing aluminium hydroxide to animals. Jenkins and Blagdon² described the use of improved containers for long-term low temperature storage of blood and considered that aluminium containers are safe and satisfactory. It is obvious that they assume that aluminium is inert. However, they point out that a number of canisters were submitted to the Department of Health and Social Security for chemical tests, and that in the contained water after sterilization aluminium was present equivalent to 250 µg/500 ml. Recently Professor G. M. Berlyne and his colleagues³ in experiments on rats have shown that aluminium salts can be harmful particularly when administered to those with kidney damage.

I would stress that it is no longer safe to regard aluminium and aluminium salts as at present used as inert. There are possible dangers from the widespread practice of using aluminium containers for cooking and canning foods, as well as in various medicaments. Further toxicological analysis should be carried out, and in particular on

blood stored at low temperature, to prevent possible harmful intravenous administration of aluminium compounds.—I am, etc.,

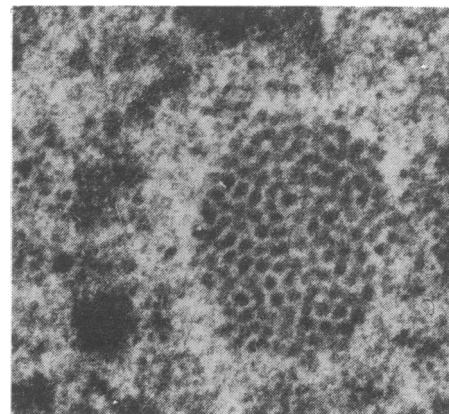
SIDNEY SHAW

Department of Haematology,
Charing Cross Hospital,
London W.C.2

¹ Spira, L., *Journal of Laryngology and Otolaryngology*, 1943, **58**, 151.
² Jenkins, W. J., and Blagdon, J., *Journal of Clinical Pathology*, 1971, **24**, 685.
³ Berlyne, G. M., *et al.* *Lancet*, 1972, **1**, 564.

Subviral Particles in Paget's Breast Carcinoma

SIR,—In the course of our ultrastructural studies of human breast cancers some essential features emerged from the study of Paget's carcinoma. These were (1) the extensive contact between normal and malignant cells through connecting desmosomes and common milk canaliculi; (2) the presence of abnormal desmosomes between malignant cells; (3) the presence of enormous tumour cells (up to 10 times the diameter of neighboring normal cells) which surround and engulf normal epithelial cells. The normal cells so incorporated appear well preserved and present many vesicles indicative of pinocytosis, suggesting that they derive nourishment by appropriating the cytoplasmic juices of the tumour cells; (4) the presence in the nuclei of some tumour cells of tubular and granular structures 220 to 250 Å in diameter, similar to those observed in human sarcomas and in collagen diseases¹ and interpreted as aberrant paramyxovirus nuclear capsids or subviral particles from an unknown virus,²



Paget's breast carcinoma; subviral particles in the nucleus.

or as ribonucleoprotein strands of a human oncogenic virus of type C or some related class.³

The apparently peaceful coexistence of normal and tumour cells suggests that tumour cells are already compatible with the tissue from which they derive at the time of their first appearance. We submit that tumour cells arise and gain acceptance because they are in some important respects similar to normal cells—with which they even share some desmosomes and milk canaliculi.—We are, etc.,

C. SIRTORI,
E. MORANO

G. Gaslini Institute, Genoa,
Ospedale S. Andrea, Vercelli,
Italy

¹ Fraire, A. E., Smith, M. N., Greenberg, S. D., Weg, J. G., and Sharp, J. T., *American Journal of Clinical Pathology*, 1971, **56**, 244.
² Jensen, A. B., Spjut, H. J., Smith, M. N. and Rapp, F., *Cancer*, 1971, **27**, 1440.
³ Györkey, F., Sinkovics, J. G., and Györkey, P., *Cancer*, 1971, **27**, 1449.

Asystole after Verapamil

SIR,—In their study of the immediate effects of intravenous verapamil in cardiac arrhythmias (11 March, p. 660) Dr. L. Schamroth and others noted no adverse clinical effects to the administration of a dose of 10 mg. I should like to report an instance where asystole occurred within one minute of the injection of 7 mg of the drug.

A 57-year-old man with a history of six previous episodes of supraventricular tachycardia was referred two hours after the sudden onset of palpitations, and supraventricular tachycardia was confirmed on the electrocardiogram. His general condition was satisfactory, his pulse rate was 160 a minute, his blood pressure 90/70 mm Hg, and there were no signs of heart failure. Prior to this attack he had been taking a prophylactic daily dose of 600 mg of practolol. He was given 20 mg of practolol intravenously which had no effect on his heart rate or blood pressure. In view of the reported efficacy of verapamil in converting this arrhythmia, 10 mg were drawn up in a syringe half an hour later and intravenous injection at the rate of 1 mg/minute was started with blood pressure and E.C.G. control. After 7 mg had been administered, the patient reported he was feeling very faint; he was clammy and his systolic blood pressure had fallen to 70 mm Hg. Administration of the drug was stopped and one minute later, asystole suddenly occurred. After three vigorous thumps on the chest electrical activity was restored with reappearance of the supraventricular tachycardia. The ventricular rate was still 160 a minute; however, the pulse was impalpable at the wrist, the blood pressure was unrecordable, and the patient, who had briefly regained consciousness following the period of asystole, became unconscious once more, and his pupils started to dilate. Immediate D.C. shock reverted the arrhythmia to sinus rhythm with first degree heart block at a rate of 60 a minute, and consciousness was restored. The conduction defect lasted 10 minutes, and the level of the blood pressure gradually rose to 120/80 mm Hg half an hour later.

The dangerous situation encountered here might have been due to an abnormal individual response or to the fact that verapamil was given in addition to practolol. A large number of the patients studied by Dr. Schamroth and colleagues were also digitized, but we are not informed as to

whether verapamil was ever given in addition to other antiarrhythmic agents. This is obviously an important point that requires further elucidation before the use of the drug becomes widespread, especially where facilities for immediate resuscitation are not available.—I am, etc.,

M. E. BENAIM

Royal Victoria Infirmary,
Newcastle upon Tyne

Diabetic Amyotrophy

SIR,—I was distressed that Drs. E. B. Casey and M. J. G. Harrison (11 March, p. 656) made no mention whatever of the peripheral circulation in their patients. In New York 30% or more of patients seen for peripheral arterial insufficiency have diabetes. Varying pictures of muscle wasting, with or without clinically demonstrable neuropathy, are extremely common. As the authors rightly point out, muscle wasting due to ischaemia rarely recovers spontaneously, and I have found it invariably to affect the distal muscles most severely. However, chronic poorly compensated arterial blocks can certainly give rise to pain and muscle wasting. Such arterial insufficiency may often be clinically masked in the diabetic by a relatively warm leg due to an accompanying autonomic sympathectomy.

I believe Drs. Casey and Harrison's paper is incomplete with absolutely no reference to the presence of peripheral pulses, colour, temperature, trophic lesions, etc., or possibly even blood flow studies, as they have not excluded impaired circulation as a contributory or primary factor in some of their patients. With much talk of shortened curricula and increasing electives for students, as well as increasing specialization in postgraduate work, it seems a pity that a paper from two such excellent institutions fails to mention an extremely common and very likely relevant clinical association.—I am, etc.,

ADOLF SINGER

Mount Sinai School of Medicine and
City Hospital Center at Elmhurst,
New York, N.Y., U.S.A.

Head Injuries in Children

SIR,—Dr. J. H. Burkinshaw's argument (5 February, p. 378) for a rational approach to skull x-rays in children's head injuries should be welcomed, as much by the injured and their radiographers and doctors whose valuable time will be saved as by the State whose money will be better spent on other things, including, one hopes, fuller assessment of the more severe head injuries with earlier recognition of traumatic deafness and facial paralysis. However, the idea should be extended to all age groups of head injury and to nasal trauma.

In both groups far too much attention has been paid to the "shopping" attitude of patients and particularly their attending and anxious relatives who ask for "an x-ray" without much notion of what it can be expected to contribute. When one considers that the nose has only to support itself, and that only recently acquired deformities need early treatment, it is obvious that the "doubtful" clinical fracture can be watched (if there is much swelling) or ignored. As things are, in most hospitals a lateral radiograph of all traumatized noses is taken, often

grossly overpenetrated, and more often showing no abnormality, as in laterally displaced fractures obvious even to the patient (being taken in the wrong plane). Correction of nasal fractures certainly does not depend on pre- or postoperative x-rays, being under visual and tactile control. Indeed overzealousness in elevating minor nasal bone "tip" fractures simply accentuates the inevitable "hump" deformity.

Plaintiffs often try to get an old deformity manipulated in a bruised nose—here the compensatory turbinal hypertrophy associated with an old septal deviation should put one on guard.

We need to lead and support our junior colleagues to bring about the necessary change in lay and legal thought. As the first stage I suggest my practice: x-ray only the noses of road traffic accidents involving third parties, cases of alleged assault, and employees injured at work; and then in two planes—vertical as well as lateral, so that one can really demonstrate something in Court from first principles.

Later, one can intimate to the police in criminal cases that the patient is available for forensic photography—more striking as a rule—until a stipulated operation time. In the correction of any bodily injury we destroy "evidence" and it is for others, if any, to provide permanent record. It should be enough for us to describe the pre-operative deformity and state that it was, or was said to be, of recent origin.—I am, etc.,

K. W. R. MURPHY

E.N.T. Department,
Ministry of Health,
Bahrain, Arabian Gulf

Transmission of Serum Hepatitis Virus

SIR,—In their recent paper Dr. J. Wallace and others (11 March, p. 663) found a significantly higher incidence of Australia (Au) antigen in blood donations from male prisoners than in those from a non-institutionalized population, but stated that there was no obvious explanation for this.

One possible explanation would be the increased frequency of tattooing which one might reasonably expect among the prisoners, and this practice has an obvious potential for the transmission of serum hepatitis virus.—I am, etc.,

G. C. FERGUSON

General Hospital,
Northampton

Preregistration Chaos

SIR,—I could scarcely believe my eyes when I read your leader on "Preregistration Chaos" (11 March, p. 642). Do you really believe that a newly qualified doctor is a consumer in the National Health Service? I had always thought that he was beginning his career as a public servant, and that the patient is the consumer.—I am, etc.,

J. M. NAISH

Department of General Medicine,
Frenchay Hospital,
Bristol

** The leader implied that preregistration doctors were "consumers" of essential training, not of medical services.—ED., *B.M.J.*

Handicapped Children and Family Stress

SIR,—I feel I should correct what may have been a misunderstanding in the leading article "Handicapped Children and Family Stress" (5 February, p. 329).

It states that "The Birth of an Abnormal Child: Telling the Parents"¹ was written with Down's syndrome particularly in mind. In fact, our concern, in writing the paper, was with all handicapped children. The reference to Down's syndrome was included only to illustrate the kind of abnormality which is not always immediately apparent, and the distress to the parents which might arise from the delayed diagnosis.—I am, etc.,

LYNDA WILLIAMS

Secretary to the N.A.M.H. Working Party

National Association for Mental Health,
London W.1

¹ National Association for Mental Health Working Party, *Lancet*, 1971, 2, 1075.

A Practical Electrocardiograph

SIR,—Dr. J. B. Donald writes (18 March, p. 751) about the possibility of instant E.C.G.s in emergency resuscitation. I have found the Visicard 8 battery-operated oscilloscope to be excellent in such situations, since it will distinguish asystole from ventricular fibrillation. It does not give a permanent tracing. The instrument is very light in weight.

It is produced by Linton Instrumentation, Aysol, Harlow, Essex.

—I am, etc.,

J. G. LEWIS

Edgware General Hospital,
Edgware, Middx.

The Case of Ilya Glezer

SIR,—Ilya I. Glezer is a biologist whose work on the nervous system is internationally known and esteemed. His book, jointly with Dr. Samuil Blinkov, was translated into English in 1968 and is a standard work of reference. We are concerned because he has apparently been held under arrest since 7 February, 1972, in the Lefortovo Prison, a K.G.B. institution. Since then his mother has had no news of his whereabouts, and so far no charge has been brought against him, although a search warrant at the time of his arrest charged him with writing a letter to the government of the U.S.S.R. and distributing it. His arrest may, however, be connected with the fact that on 8 January, 1972, he applied for permission to emigrate to Israel. This would not be considered a crime here and ought not to be regarded as criminal in any country. Seventy Jews in the U.S.S.R. have signed letters calling for Glezer's release. We wish to add our voice to theirs.—We are, etc.,

H. MERSKEY

J. A. V. BATES

W. BLACKWOOD

J. B. CAVANAGH

J. A. N. CORSELLIS

G. CURZON

A. M. HALLIDAY

P. W. NATHAN

P. D. WALL

National Hospital for Nervous Diseases,
London W.C.1