

ANNOUNCEMENT

During the thirteenth International Stoke Mandeville Games, which will be held in Tokyo from the 8th to the 12th November, after the Olympic Games, a Scientific Meeting will be held on 10th November in the Olympic village.

The main subjects are:

- (i) The initial treatment of traumatic paraplegia and tetraplegia.
- (ii) The care of the urinary tract in the acute and late stages of paraplegia.
- (iii) Problems of the physical rehabilitation of paraplegics and tetraplegics.

The President of the Meeting will be Professor T. Amako, M.D., of the Department of Orthopaedic Surgery, Faculty of Medicine, Kyushu University, Fukuoka, who extends a warm invitation to all colleagues to attend the Meeting in Tokyo.

Two aircraft (KLM and AIR FRANCE) have been chartered to take the paraplegic competitors and escorts to the International Stoke Mandeville Games in Tokyo.

Members of the International Medical Society of Paraplegia wishing to take part in the Scientific Meeting in Tokyo may join one of these flights, subject to seats still being available, at a cost of £200 return from any one of the following places of embarkation: Amsterdam, Hamburg, Paris, or London. Departure dates will be the 4th and 5th November, with a stay of about ten days in Tokyo. Members of the Society can be accommodated in the Village with the teams for the Stoke Mandeville Games.

Those Members interested in joining one of these flights should write immediately to Miss Joan Scruton, Secretary, National Spinal Injuries Centre, Stoke Mandeville Hospital, Aylesbury, Bucks., England.

ABSTRACTS FROM PAPERS

TRAUMATIC DISLOCATION OF THE CERVICAL SPINE. ARMY EXPERIENCE AND RESULTS: Col. BRAV, E. A., Lt.-Col. MILLER, J. A. & Major BOUZARD, W. C. (1963), *J. Trauma*, 3, 6, 569.

A study of about 300 clinical records between 1947 and 1958; 191 records were sufficiently complete for evaluation. Eighty-three former patients replied to the questionnaire and sent recent radiographs. Only 3.6 per cent. showed normal alignment, 42.2 per cent. anterior bone-bridging indicating natural stabilisation.

'It became evident that many patients had good symptomatic and functional results in spite of what we considered unsatisfactory roentgenograms.' And 'all the patients with demonstrated spinal instability had good results'. Eleven Patients had cord-involvement.

On conservative treatment (skull—or halter traction followed by a Minerva plaster for several months) the authors comment that, unless traction is maintained for at least six weeks, redislocation is frequent.

They still recommend early laminectomy in cases of cord-compression, but find 'primary'—within three months—fusion indicated in only 5 per cent. of cases. Another 10-15 per cent. might require secondary fusion after the end of conservative treatment. They have seen no operative deaths and only five mild complications.

This paper deserves to be read in detail, although it deals fully only with cases without neurological involvement.

FRACTURES OF THE CERVICAL SPINE IN ANKYLOSING SPONDYLITIS:

WOODRUFF, F. P. & DEWING, S. B. (1963), *Radiology*, **80**, 1, 17.

The authors report on 20 cases, 16 from the literature and 4 of their own, in whom fractures occurred in a cervical spine rigid through ankylosing spondylitis.

In 7 cases there was no neurological involvement, in 4 cases neurological signs were slight.

Nearly one-half of the patients died from 3 hours to 20 months after their injury. All of these had complete or almost complete tetraplegia.

Treatment consisted mainly in traction. Delayed laminectomy after 6 months for persistent instability in a tetraplegic was followed by death 20 months later.

The authors, radiologists, confirm that 'there can be gross misalignment of bone in the radiograph with minimal or no cord-impairment. There can also be great damage to the cord with little or no radiologic deformity.'

They emphasise that slight trauma may cause severe injury and that traction ought not to extend the neck in what often are extension injuries.

COMPLICATIONS DURING LAVAGE THERAPY FOR RENAL CALCULI:

FOSTVEDT, G. A. & BARNES, R. W. (1963), *J. Urol.* **89**, 3.

Renacidin has been introduced into urological practice for the treatment of renal calculi. It consists of a mixture of acids and their anhydrides which, when made up into solution, will dissolve certain inorganic constituents of renal calculi.

It offers several theoretical advantages over the operative treatment of renal calculi in paraplegics, since it avoids surgical treatment and all its accompanying hazards.

However, it is an extremely dangerous form of treatment and several mortalities have been recorded directly attributable to its use.

This paper describes four cases in which death resulted from this therapy, two of the patients were paraplegics, a third had poliomyelitis and a fourth multiple sclerosis. All the patients had an elevation of their temperature to 101-102 for one or two days following treatment but did not appear to be otherwise ill, until they suddenly collapsed and died. Autopsy was performed on three of the cases and revealed fulminating infection with multiple abscesses, areas of necrosis, calcareous sludge and undissolved calculi in the kidney undergoing lavage. The opposite kidney was normal enough to sustain life. Pulmonary oedema was found in all cases. In one case there was a small perforation of the renal pelvis with sludge in the retroperitoneal space.

The authors recommend that if this therapy is to be used the following precautions should be taken: Frequent wash outs of the kidneys with saline, blood cultures and serum electrolyte studies. If infection develops this should be promptly treated with the appropriate antibiotic, and there should be a prolonged interval between courses of treatment.

ETIOLOGICAL FACTORS IN UROLITHIASIS: A CLINICAL ANALYSIS OF

275 CASES: ALBUQUERQUE, P. F., FORSTER, R. & ZANANDREA, R. (1963), *J. Urol.* **89**, 3, 325.

The authors review the factors responsible for the formation of renal stones in 275 patients seen in their urological service between 1945 and 1961. Uric acid stones were found in 49 cases, alkaluria was present in 49 cases, hypercalciuria in 52 cases, hyperparathyroidism in 16 cases, only 7 cases were attributed to obstruction and recumbency, and the etiological factor was undetermined in 106 cases.

They briefly discuss their method of investigation which consisted in all cases of urine analysis, culture and determination of the pH. An I.V.P. was performed routinely and special studies of uric acid ammonium and calcium excretion were performed only when indicated.

They found that the uric acid stones were always associated with the pH. constantly

being below 6—in which uric acid is not very soluble. They treated this by making the urine alkaline with sodium citrate and sodium bicarbonate.

This was in contrast to the 45 cases in which alkalinuria was thought to be responsible for the renal calculus formation. The alkalinuria in the majority of cases being caused by the excessive intake of citrus fruits and not to infection with proteus organism. The urine was rendered acid in these cases by simple correction of the diet.

The high incidence of uric acid stones in which the treatment is diametrically opposite to that of the commonly seen 'alkaline' stones in paraplegics should serve as a warning against the routine treatment of all paraplegic stone formers with acidifying agents.

BOOK REVIEW

CLINICAL PRACTICE AND PHYSIOLOGY OF ARTIFICIAL RESPIRATION.

By SPALDING, J. M. K. & CRAMPTON SMITH, A. (1963), 144 pp., 30s. Oxford: Blackwell.

The Respiratory Unit at the Radcliffe Infirmary, Oxford, has made considerable contributions both from a theoretical and practical viewpoint to the management of patients requiring mechanically assisted ventilation. This book is based on the treatment at that Unit of 153 patients, of whom 105 are alive and 48 are dead. It is divided into three sections. The first describes the practice of artificial respiration with a simple account of the equipment. The second describes largely original work that has been carried out by Dr. L. H. Opie, Dr. W. E. Watson and the authors on the physiology of artificial respiration and the third describes in detail some of the conditions that may be treated by this technique.

The physiological section is of great interest, since it describes the modifications that take place in the control of the circulation and respiration, both by the pathological processes which are being treated such as severe polyneuritis, and by the artificial conditions imposed by mechanical ventilation.

The authors studied the circulation by observing the response of the peripheral veins to the Valsalva manœuvre. They have shown that this is abnormal in patients with a high cord transection, and suggest that such abnormality may result in a diminished venous return. A point of criticism is whether the puffing of air at 40 mm. pressure down the trachea in a paralysed patient produces the same physiological effect as the Valsalva in normal subjects who can contract their abdominal muscles against a closed glottis.

In the final section on the management of specific conditions, a fuller description of the management of such conditions as chest injuries would be welcome.

The book contains a great deal of valuable information, and will be of great interest to clinicians and physiologists.