IN MEMORIAM

Prof. dr. F. D. du Toit van Zijl is op 26 Januarie 1971 skielik aan sy woning in Rondebosch, oorlede.

Prof. Francois Daniël du Toit van Zijl het in 1925 sy M.B., Ch.B. aan die Universiteit van Kaapstad verwerf, in 1931 in Edinburg, Skotland, F.R.C.S. geword en in 1933 sy Meestersgraad in die Chirurgie aan die Universiteit van Kaapstad behaal.

Sedert 1933 was hy algemene praktisyn op Malmesbury totdat hy twee jaar later in Kaapstad begin spesialiseer het en aan die Somerset-hospitaal verbonde was. In 1949 was hy as deeltydse hoogleraar aan die Universiteit van Kaapstad aangestel.

In 1955 is hy aangestel as die eerste hoogleraar in die Chirurgie en Dekaan van die Fakulteit van Geneeskunde aan die Universiteit van Stellenbosch. Gedurende hierdie tydperk het hy besonder belang gestel in die vestiging van die paramediese dienste, en dit was grootliks as gevolg van sy inisiatief en ywer dat 'n B.Sc. in Fisioterapie kursus in 1969 aan die Universiteit van Stellenbosch ingestel is. Prof. Van Zijl was ook vir die afgelope ag jaar ere vise-president van die Suid-Afrikaanse Fisioterapie Vereniging.

Ons sal hom altyd onthou vir sy kalm optrede wat in alle gevalle vertroue ingeboesem het by diegene wat met hom in aanraking gekom het.

Ons het 'n goeie vriend en steunpilaar verloor en wens ons innige meegevoel te betuig met mev. Issie van Zijl en haar seun.

ABSTRACTS

ABSTRACTS FOR THIRD QUARTER, 1970

Acta Neurol. Scand., 46, 3, 1970:

PEDERSON, E. *et al:* GABA Derivative in spasticity.

Summary: A further study of CIBA 34, 647 Ba in spastic (non-traumatic) paraplegia. The patients in this group suffered mainly from multiple sclerosis, and the effectiveness of CIBA 34, 647 Ba in controlling spasticity and flexor spasms was again confirmed. In this series, however, side effects were noted — in particular loss of muscle power. It was suggested that caution should be exercised in using this compound for mobile patients and in such cases should only be used when the spasticity was of greater severity than the paresis.

Am. J. Physiol., 219, 2, Aug., 1970:

OSCAI, L. B. and HOLLOSZY, J. O.: Weight Reduction in Obese rats by exercise or food restriction: effect on the heart.

Summary: Both groups of rats, treated by exercise or (sedentary) food restriction, lost 26 per cent of their initial body weight over 18 weeks. The food restricted animals' heart weights were, however, significantly reduced, whereas those of the exercised animals were not. It was suggested that exercise can prevent the reduction of heart weight associated with loss of bodyweight.

Develop. Med. Child Neurol., 12, 4, Aug., 1970:

1. GUBBAY, S. S., LOBASCHER, M. and KINGERLEE, P.: A Neurological Appraisal of Autistic Children: Results of a Western Australian survey.

Summary: 56 per cent of the children examined showed unequivocal evidence of organic brain disease, whilst a total of 84 per cent showed evidence suggestive of this. It was felt that primary autism is probably rare, and that autism more usually appears as one feature of widespread brain damage.

2. MACKEITH, R. C.: Annotation: Who Guides the Therapist? Recommended reading.

J. Appl. Physiol., 29, 2, Aug., 1970:

1. KUTA, I., PARÍZKOVÁ, J. and DÝCKA, J.: Muscle Strength and Lean Body Mass in old men of different physical activity.

Summary: Thigh circumference and average muscle strength were significantly higher in most active men in the 7th decade, as compared with inactive men. By the 8th decade, the total and lean body weight were also higher in active men, and their muscle strength was equivalent to that of inactive men 10 years younger. The decrease in muscle strength with ageing was, however, more marked in the most active men.

J. Neurol., Neurosurg., Psychiat., 33, 4, Aug., 1970:

1. Wiederholt, W. C.: Stimulus Intensity and Site of Excitation in Human Median Nerve Sensory Fibres.

Summary: In the past it has been accepted that large diameter nerve fibres have lower thresholds and faster conduction velocities than small diameter nerve fibres. More recent studies have, however, been contradictory, some workers (Hodes *et al*, 1965; Drechsler and Lastovka, 1968) concluding that, in human motor nerves, low threshold fibres conduct more slowly than high threshold fibres. The author undertook a further study attempting to explain these discrepancies as different interpretations of the effective point of nerve excitation at different stimulus intensities. It was found that as stimulus voltage increased, both latencies and amplitude of nerve action potentials decreased, whilst conduction velocities remained unchanged. The decreased latency was interpreted as movement of the effective point of excitation away from the stimulating cathode. It was also found that, in the human median nerve, the fastest conducting sensory fibres do have a lower threshold than slowly conducting fibres.

2. JONES, R. F., BURKE, D., MAROSSZEKY, J. E. and GILLIES, J. D.: A New Agent for the Control of Spasticity.

Authors' summary: In a preliminary controlled trial, CIBA 34, 647-Ba, a gamma aminobutyric acid derivative, was found to be more effective than placebo in reducing spasticity due to spinal injuries. In an uncontrolled trial, it also appeared more effective than diazepam. The intensity of spasticity was measured electromyographically by the amplitude of the stretch reflex at various velocities, and the results were correlated with those obtained by clinical assessment. 34, 647-Ba was effective in both complete and incomplete spinal cord lesions and it is suggested that it has an action at the spinal level. No significant side-effects were encountered.

3. LAITINEN, L. V. Neurosurgery in Cerebral Palsy.

Summary: This paper summarizes the results of neurosurgery in 58 selected patients with cerebral palsy. Stereotaxic subthalamotomy was performed on 55 patients and gave good results in 65 per cent of the cases. The best results were obtained in the case of rapid involuntary movements or intention tremor, whilst rigidity and spasticity were little affected. Three patients underwent a longitudinal spinal myelotomy, which was effective in relieving spasticity and thus assisting further rehabilitation, although temporary incontinence was observed in two patients and a probable sensory deficit in the third.

It was stressed that reasonable intelligence was an essential prerequisite for neurosurgery. No patients of low intelligence benefitted from the steriotaxic surgery, probably because of their inability to co-operate in post-operative rehabilitation.

J. Neurosurg., 33, 1, July, 1970:

LOESER, J. D.: History of Skeletal Traction in the Treatment of Cervical Spine Injuries.

Summary: An interesting historical survey of various methods of dealing with cervical fractures and fracture-dislocations from 4000 B.C. to the present day.

J. Physiol., 209, 3, Aug. (2) 1970:

NEWSOM DAVIS, J. and SEARS, T. A.: The Proprioceptive Reflex Control of the Intercostal Muscles During their Voluntary Activation.

Summary: The mechanical load on the intercostal muscles was increased or decreased by applying a pressure source to the airway so that respiratory movement could be resisted or assisted.

A "silent period" was observed on sudden unloading, which was thought due to withdrawal of monosynaptic excitation from the muscle spindle.

On loading, it was found that a short inhibitory response was followed by an excitatory response. It is postulated that the inhibitory response is due to autogenic inhibition arising from tendon organs, whilst the excitatory response arises from muscle spindle stimulation. The initial inhibitory response was unexpected, since a servomechanism has been assumed to exist, and the authors propose that it is a result of conditioning in relation to previous experience.

The authors talk of "inspiratory" and "expiratory" intercostal muscles, but add no explanation of these terms.

J. Physiol., 210, 1, Sept., 1970:

REIS, D. J. and WOOTEN, G. F.: The Relationship of Blood Flow to Myoglobin, Capillary Density and Twitch Characteristics in Red and White Skeletal Muscle in a Cat.

Summary: Both blood flow and myoglobin concentration were found to be higher in red muscles than in white, varying directly with each other. Blood flow was, in fact, three times greater in red than in white limb muscles. Contraction time was 2-3 times longer in red than in white muscles, again varying directly with the fractional blood flow. However, the direct linear relationship was lost during sleep or excitement, suggesting that skeletal muscle metabolism is adapted for its activity during quiet alert behaviour.

Neurol., 20, 7, July, 1970:

SCOTT, R. M., BRODY, J. A., SCHWAB, R. S. and COOPER, I. S.: Progression of unilateral tremor and rigidity in Parkinson's disease.

Summary: This survey of a large number of cases which originally presented with unilateral symptoms showed that the majority eventually had bilateral involvement. This was so whether the patients had been treated medically or surgically. Those which remained unilateral tended to have a history of a definite illness or accident preceding the onset of symptoms.

Physiol. Reviews, 50, 3, July, 1970:

CATTON, W. T.: Mechanoreceptor Function.

Summary: A very well-documented monograph summarizing types of mechanoreceptors — both cutaneous and proprioceptive — and characteristics of mechanoreceptor function. This monograph is well worth reading by physiotherapists interested in neurophysiology and, more specifically, in techniques based on activation or deactivation of receptors.

OTHER ARTICLES OF INTEREST

Amer. J. Occup. Ther. 24, 5, July-Aug. 1970:

DEVORE, G. and SMITH, H.: A New Method for Measuring Motion of Flexor Tendon Grafts.

WERNER, J. L. and OMER, G. E.: Evaluating Cutaneous Pressure Sensation of the Hand.

Scientific American, July, 1970:

DEAN, G.: The multiple Sclerosis Problem.

S.A. Med. J. 44, p.1011, 1970:

KAPLAN, I.: The Management of Hand Injuries.

S.A. Med. J. 44, p.1028, 1970:

LIPMAN, L.: Management of the Autistic Child.

S.A. Med. J. 44, p.1054, 1970:

VAN DER MERWE, G. W. and VAN ROOYEN, R. J.: Anatomiese en Fisiologiese Eienskappe van die Vrou van Belang by Sport.

J. Neurophysiol., 33, 4, July, 1970:

THATCH, W. T.: Discharge of Cerebellar neurons related to two maintained postures and two prompt movements, I Nuclear cell output.

Discharge of cerebellar neurons related to two maintained postures and two prompt movements II Purkinje cell output and input.

Ned. Tijdschrift voor Fysiotherapie, 587-591, 1970:

MOL, W.: Het meten van de spierkracht.

Ibid, 592-594, 1970:

VAN DER REE, M.: Fysiotherapie bij patiënten met rheumatoids artritis.

Ibid, 599-603:

VIS, A. J. J.: Ortopedisch zwemmen.

BOOK REVIEW

PERIPHERAL MANIPULATION by G. D. Maitland, A.U.A., Associate of the University of Adelaide; Member of the Chartered Society of Physiotherapy and the Australian Physiotherapy Association; Part-time tutor in Physiotherapy, University of Adelaide. Obtainable from Butterworth & Co. (S.A.) (Pty.) Ltd., P.O. Box 792, Durban. Price R6.00.

This book is of very great value as a complement to his book *Vertebral Manipulation,* and also as there is the present interest in mobilisation and manipulation. The procedures of passive movements in the past did not respect pain sufficiently, and combined often with poorly performed techniques, they fell into disuse. Now Mr. Maitland uses very carefully graded oscillatory movements frequently in the painless part of the range. His approach is so much more scientific and his careful examination of the joints, whether spinal or peripheral, makes this particular aspect of Physiotherapy very interesting and rewarding.