



In Spinal Cord this month . . .

Prevention of urinary tract infections in SCI patients

Possible measures that can be taken to prevent the common series complication of urinary tract infections in SCI patients are clearly set out and discussed by Galloway (p 198) in a Review Article. In addition to several known measures, there is a plea for continued research preferably with multi-centre trials on new concepts, including vaccination, immunotherapy, the use of receptor analogues and bladder interference.

Motor cortical mapping for proximal upper extremity muscles following SCI

Brouwer and Hopkins-Rosseel (p 205) have utilised the techniques of focal transcranial magnetic stimulation to map out motor cortical representation of relaxed limb muscles innervated by roots rostral to the neurological lesion in SCI patients. Their study does not support previous reports of expanded motor cortical representations. Their work demonstrates that further studies are required concerning the association of pathology and specific rehabilitation procedures relation to motor cortical expansion.

Correlation between the neurological changes and urodynamic function in SCI patients

An invaluable research study by Wyndaele (p 213) clearly shows that clinical neurological examination of a patient with a serious spinal cord lesion is helpful in diagnosing lower urinary tract function but even so this provides insufficient information for the precise and accurate classification of such functions. Without doubt, urodynamic tests are essential to obtain full necessary information.

Assisted reach and transfer of individuals with tetraplegia

Practical difficulties for those who are tetraplegic are to transfer and to carry out forward arm reach and Allison and Singer (p 217) provide a full report on an ingenious prototype orthosis which could well overcome such problems.

Demineralisation in those who are spinal paralysed

Studying bone demineralisation in SCI patients, Szollar *et al* (p 223) have made a number of interesting observations including the fact that osteoporotic changes are different in such patients compared to those which occur, for example, pertaining to age and in relation to the menopause. Significant femoral bone mineral loss was not found until about 10 years after the spinal injury.

The osmolality of hydrophilic urethral catheters

Waller *et al* (p 229) show the importance of friction and urethral epithelial sticking of urethral catheters which can cause urethral trauma and conclude from their study that the osmolality hydrophilic character of the second generation Lo Fric type of catheter is less likely to damage the urethra.

Muscle damage resulting from wheelchair propulsion

Muscle enzyme and myoglobin studies were carried out by Ide *et al* (p 234) to assess the degree of muscle damage which may occur after wheelchair propulsion by a number of

college-age healthy men on a wheelchair treadmill. They consider that their findings have important lessons for wheelchair racing athletes and also regarding ordinary day to day wheelchair propulsion.

The employment of Australian patients with a spinal cord injury

A selective study by Murphy *et al* (p 238) of the employment achievement of spinal cord injury individuals indicated the several, complex factors present in many of their patients, several of which had a significant effect on their employability. Consideration is given to the type and degree of impairment and of pre-injury secondary education and vocational training and pre-injury employment. These features are discussed in relation to the availability of expert post-injury vocational services with the direct aim to allow such people to obtain interesting gainful employment.

Obesity and spinal cord injury

Tetraplegic individuals understandably have several serious practical 'quality of life' problems and, as is shown in the paper by Blackmer and Marshall (p 245), if in addition such people are very obese there are a number of extra problems and these include complications which can seriously affect their rehabilitation.

Correlation between K complex, periodic leg movements and myoclonus during sleep in paraplegic adults after an acute physical activity

In a study by Mello *et al* (p 248) of the above features in a number of adult paraplegic individuals, it is shown from their findings that physical activity can affect or modulate the incidence of K complex and that there appears to be a positive correlation between periodic leg movements and K complex, the conclusion being that sleep can be consolidated by physical activity.

Epidemiology of traumatic spinal cord injuries in Jordan

We are fortunate in receiving articles on the epidemiology of spinal cord injuries from many different countries and the article by Otom *et al* (p 253) provides an invaluable insight into the situation in that country where there are reported to be an annual incidence of 18 per million per year. The main causes for traumatic SCI are given and it is noted that great stress is placed on their prevention.

Autonomic hyperreflexia associated with recurrent cardiac arrest

The frequency and importance of autonomic hyperreflexia is well appreciated and in the Case Report by Colachis and Clinchot (p 256) there is an example of this condition occurring in relation to recurrent ventricular fibrillation and cardiac arrest but who fortunately with appropriate treatment made a full recovery.

Phillip Harris
Editor