



In Spinal Cord this month . . .

Violence related spinal cord injuries

During the 1980s violence was found to be the main cause of spinal cord injury in most large urban areas as is reported by Carroll (p. 341). She makes a careful analysis of the situation in the small rural USA State of Arkansas and found that the groups most at risk are first, black males and then black females. Indeed violence was the commonest cause of spinal cord injury among black females. She feels that her findings should help to determine a prevention strategy in order to reduce this serious health crisis of the young, black male population.

Estimation of social adjustment following spinal trauma

In their first article, Glass *et al* (Spinal Cord (1997) 35: 320–325) asked the question 'Who is more realistic – the patient or spouse when estimating social adjustment after a spinal cord injury?' and they provided a statistical justification in their paper. In the second article (p. 349) these authors examine the response structure of spinal injury respondents in the UK and in the USA to the demographic affective state and the Modified Katz Social Adjustment Scale (MKSAS). They pay particular attention to the medicolegal effects on social adjustment.

Cervical vertebral fracture: orthopaedic issues

This 'Clinical Case for the Month' is led by Barros with participation by five 'senior medical experts' (p. 358). The patient described is a 19 year old man with complete traumatic tetraplegia at C6 level and the exercise for the experts, including Dr Barros, is to decide on the optimal management of this particular patient. The views provided by these experts demonstrates the variety of approaches for the treatment of such a patient and indeed other readers of Spinal Cord may have their own ideas on the management. Could it be possible that 'all roads lead to Rome?'

Diagnosis, therapy and prognosis of the neuropathic urinary bladder due to an acute spinal cord injury

There can be a place for patients who are still in the phase of spinal shock after an acute spinal cord injury which includes bladder paralysis for an expert clinical examination and somatosensory evoked potential studies to help to predict possible recovery of urinary bladder function. Curt *et al* also state in their invaluable article (p. 368) that such examinations do not indicate urodynamic impairment and indeed urodynamic examinations should be mandatory both for the diagnosis and for the treatment of the neuropathic bladder.

The pathogenesis of bone mass loss in patients with spinal cord injury

Szollar *et al* (p. 374) report on their technique to measure bone mineral density in the lumbar spine and in the femoral neck in spinal cord injury patients and in control subjects by using dual energy x-ray absorptiometry. The authors review the published literature on the subject and have agreed with the findings of other workers concerning the femoral region, but the work by Szollar *et al* gives new findings concerning bone mineral density in the lumbar spine region.

The value of treadmill walking for paraplegic patients

The assessment of ambulation training for individuals who have paraplegia can pose certain practical problems if it is carried out 'in an open field' as is pointed out by Felici *et al* (p. 383). However, in their communication they provide interesting data which shows that treadmill training for such patients has several practical advantages and indeed improves RGO/ARGO (orthotic) walking capability.

Clinical neurological and functional recovery in spinal paralysed patients

Musulmanoglu *et al* (p. 386) have studied the motor, sensory and functional recovery of 52 patients with various aetiologies for degrees of spinal paralysis by using the classification set out in the ASIA Standards for neurological and functional assessment, on admission, at discharge and 12 months following discharge. They concluded that rehabilitation was effective in their patients but noted that 71.7% of their study group, in fact, had incomplete neurological lesions.

A study of vasocative substances during autonomic dysreflexia

Several aspects of the pathophysiology of autonomic dysreflexia (AD) have been investigated by Zhou *et al* (p. 390) who have observed the contribution during AD of vasoactive substances, including norepinephrine (NE), epinephrine, renin, angiotensin II and atrial natriuretic polypeptide (ANP) in 30 patients; 15 of whom were paraplegic and 15 tetraplegic. Details of their technique to produce AD is provided in their article. The main findings were that AD resulted from sympathetic overaction caudal to the spinal cord lesion and the increase of vascular sensitivity to NE; the adrenal glands and the renin-angiotensin system did not respond to a rise in blood pressure; and that ANP may be very important in maintaining homeostasis during AD besides the involvement of the parasympathetic nervous system.



Constipation in spinal cord injury patients

A very common, not well understood, complex and often poorly managed feature of many individuals with spinal cord injury is that of constipation. This challenge has been taken up by Harari *et al* (p. 394) who have made a special study of 161 patients. The pathophysio-

logy, symptoms and syndromes are discussed with reference to polytherapy, including polypharmacy. Practical points and some solutions to the problems are provided and the authors conclude their paper by stating that their findings suggest that difficulty with bowel evacuation can be predicted on the basis of a patient's clinical profile.

Phillip Harris
Editor