In Spinal Cord this month . . .

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This is the first of a series of articles to be published in Spinal Cord on 'Profiles of spinal units and services' and Donovan (p. 565) provides an excellent outline of the history and ethos and the essential facilities and activities in this well established Institute, encompassing clinical, educational and research spheres.

Upper extremity neuroprosthesis

This, and the following three articles deal with the current research and on-going developments for orthoses for spinal paralysed individuals. Gorman *et al.* (p. 569) review the situation and give strict criteria and cogent indications for the use of upper extremity FES neuroprostheses and include an estimate of likely tetraplegic candidates who could probably benefit from such systems.

Clinical evaluation of the 'Walkabout' a new orthosis

New orthoses to assist spinal paralysed patients to stand and to ambulate, with the incorporation of ingenious biomechanical features are being developed, carefully tested and then reported on, and Middleton *et al.* (p. 574) give a clear statement of their new orthosis. One practical problem with some orthoses is their actual, regular use over long periods of time. In their study, these authors found that 15 of the patients were continuing to use the 'Walkabout' for more than 18 months.

The attitude of paraplegic individuals to the 'Walkabout' and the 'Isocentric Reciprocal Gait' orthoses

Harvey *et al.* (p. 580) bring out important, practical points in their paper, giving the results of a randomised cross-over trial of two different orthoses and concluding that there were no obvious differences between the two for therapeutic purposes. They also observed that few of the subjects wore either prosthesis more than once every 2 weeks.

An advanced reciprocating gait orthosis for paraplegic individuals

The use of 'Argo' type of orthosis for standing and for walking is carefully assessed and is discussed in the article by Jaspers *et al.* (p. 585). They stress that careful selection of patients is mandatory, as is proper information concerning the use of the orthosis. A number of practical problems were encountered with the use of the orthosis, and indeed, as a result of the study, the authors are recommending certain technical improvements.

The prevalence of pressure sores in paraplegic wheelchair users

In this study from Japan, Sumiya *et al.* (p. 590) report on the risk factors, causation and the quite high incidence of pressure sores in 218 paraplegic patients and provide guidelines for their prevention. With the accumulation of knowledge over recent times the authors conclude that the key factor is undoubtedly proper education of patients and their relatives from understanding medical, nursing and paramedical personnel to prevent the development of the serious complication of pressure sores.

The metabolic response to spinal cord injury

In their interesting and important report, Rodriguez *et al.* (p. 599) have undertaken an intensive nutrition assessment of 12 patients in relation to their acute metabolic response to SCI. They concluded that the negative nitrogen balance following SCI was obligatory, there can be a tendency to acutely over feed SCI patients and they recommended that serial metabolic cart (indirect calorimetry) measurements to accurately assess patients subsequent metabolic requirements.

The prophylaxis of urinary tract infections (UTI) in SCI patients

The challenge of possibly preventing UTI in patients with a neuropathic urinary bladder by the use of antibiotic therapy and, in particular, trimethoprim – sulfamethoxazole (TMP/SMX) is given in the paper, a preliminary study, by Reid and Howard (p. 605). Some of the problems associated with such antibiotic prophylactic therapy are discussed as are some of the benefits including a reduction in health care costs.

Bowel management in long term SCI individuals

This is an important study undertaken by Menter *et al.* (p. 608) in which the high incidence of bowel dysfunction is noted and is related to both aging and to the duration of the SCI. The bowel pathology and the symptoms varied with the type and extent of neurological injury but the authors conclude that increased surveillance and early dietary counselling and management probably do not favourably influence the outcome of bowel dysfunction.

Volume dependent self-catheterisation for patients with a neuropathic bladder due to multiple sclerosis (MS)

In an attempt to avoid unnecessary catheterisations in MS patients and to avoid incontinence, De Ridder *et al.* (p. 613) have utilised the PCI 5000 Bladdermanager

which provides patient feedback regarding bladder volume and changes the catheterisation schedule from time dependent to volume dependent. The authors conclude that the apparatus offers several benefits to MS as well as other SCI patients but they point out that theirs is a preliminary report and further studies are required.

The psychological impact on SCI patients requiring isolation because of MRSA infection

This is a pilot, cross-sectional matched controlled study carried out by Kennedy and Hamilton (p. 617) in which they found that SCI patients who require long periods of isolation because of MRSA infection do not, in fact, apart from 'anger' differ from the control group in FIM, anxiety and depression.

Functional skills of SCI patients after long term hospitalisation and rehabilitation

Because of the aggression in Croatia, about one third of the houses were destroyed and most of the territory was occupied, therefore, as is vividly described by Dzidic and Moslavac (p. 620) SCI patients usually required to remain in hospital for even more than 3 years. However, there was no reduction of the functional skills of the patients; the authors stress the importance of expert medical rehabilitation with training for the employment of their young spinal paralysed people.

Endovascular treatment of symptomatic vertebral haemangiomas

These highly vascular lesions can present a daunting challenge to the neurosurgeon but as is illustrated in the article by Jayakumar *et al.* (p. 624), neuroradiological endovascular particulate embolisation of the feeder arteries can have a dramatic effect in greatly reducing their vascularity. The authors also carried out a decompressive laminectomy in 11 of their 12 patients; and they all underwent radiotherapy. All but one of the patients showed neurological improvement.

Syringomyelia complicating meningitis

Tuberculous meningitis is still commonly encountered in developing countries and associated spinal arachnoiditis is quite prevalent. However, in the patient forming the case report by Kakar *et al.* (p. 627) there was the additional late complication of a cervical cord syrinx, causing tetraparesis. Fortunately this is responding well, to date, after treatment by a syringosubarachnoid shunt.

A posterior longitudinal ligament ganglion cyst causing lumbar radiculopathy

This is a case report by Baba *et al.* (p. 632) concerning the clinical presentation, the radiological, operative and the histological findings in a 26-year-old man. The condition is a rarity and, as is pointed out by the authors, is one type of many different cysts that may be encountered in the lumbar region of the spinal canal.

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