

EDITOR'S PAGE

Residual pathways after spinal cord injury are not always clinically assessed



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Dear *Spinal Cord* reader,

It has become clear that more evaluation would benefit the neurologic diagnosis after SCI. Clinical assessment, though important, may not give an overall correct image of what is lost and what is preserved in the spinal cord after trauma. It would be worthwhile to develop this further as most probably management and outcome could benefit from such knowledge.

Review: two are presented in this issue. Emmanuel *et al.*, in an international collaboration, wrote a review on transanal irrigation of the bowel and conclude that careful patient selection, tailored stepped approach, directly supervised training and sustained follow-up are key to optimizing outcomes with the technique. Latifi *et al.* reviewed changes of leptin concentration in plasma in individuals with SCI. Increased levels can be due to fat distribution changes and sympathetic dysfunction. A higher level of spinal lesion corresponds with a higher plasma leptin concentration.

Locomotor/physiotherapy: Spooren *et al.* (two manuscripts) studied the Van Lieshout hand function test for Tetraplegia. Measuring the quality of arm-hand functioning, it is valid, reliable and responsive. However, there was need to improve it for interval level measurement. When applying the Rasch model, the requirements of an objective measure were satisfied. Reference values were established for different subgroups of tetraplegic patients at different stages during rehabilitation. The presented evaluation has proven to be able to detect improvement over time. Coutinho *et al.* provide normative data for the 20-Minutes Exercise to estimate the resistance capacity by manual wheelchair users with SCI and evaluate the effects of training and other therapeutic interventions. Arazpour *et al.*, using an advanced reciprocating gait orthosis with dorsiflexion found that it increased the fear of falling, but improved static postural stability, increased walking speed and endurance during the rehabilitation of people with SCI.

Neurological/diagnosis/classification: Edwards *et al.* showed that the motor evoked potential response to transcranial magnetic stimulation can identify residual pathways not apparent from clinical assessment alone. Liu *et al.* found that the training effectiveness of International Standards for Neurological Classification of SCI through self-study is reliable. However, some specialized knowledge could not be transmitted without more detailed discussions and case presentations. Takahashi *et al.* showed that high signal intensity (HSI) on T2-weighted MRI image was strongly associated with intramedullary stress. Threshold of intramedullary stress to present HSI related closely to symptoms of myelopathy.

Urology: Costa *et al.* found 40 cm long catheters (compared to 30 cm) for clean intermittent catheterization preferred due to subject confidence in bladder emptying, ease of catheter manipulation, and the ease to drain urine into a receptacle. Krebs *et al.* confirmed that after intermittent catheterization zero or small residual urine volumes remain and do not predispose for urinary tract infection. Sayilir *et al.* found differences between upper and lower cervical SCI cases in neurogenic bladder characteristics and treatment approaches.

Mortality: Rabadi *et al.* found that older age at the time of injury is a significant predictor for mortality following SCI, with patients more likely to die from cardiovascular deaths than in the general population. There is a need for preventative strategies, including cardiovascular risk factors, in order to decrease long-term mortality. Hyung Seok Nam *et al.* present how suicide was more frequent among Korean persons with SCI compared to able bodied peers, and closely related to psychosocial adjustment. The results support the need for active intervention to prevent suicide regardless of injury severity.

Case report: Nan Liu *et al.* present a case of postpartum hypogalactia in a woman with Brown-Séquard-plus syndrome and how this is clinically relevant.

L Illis, the previous editor of *Spinal Cord* reviewed the Handbook of Clinical Neurology.

Enjoy reading.

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