Pathophysiology and management of pain following S.C.I.

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Synopsis

Neuropathic pain following spinal cord injury (S.C.I.) is the most intractable type of pain and strongly reduces the quality of life of affected individuals. In the last decade it has become clear that a complex interplay between immune cells and neurons triggered by neurotrauma plays a key role in S.C.I. neuropathic pain. The present paper will review the involvement of the immune system in S.C.I. neuropathic pain and discuss novel and recent findings on the effect of neuroprotective and anti-inflammatory therapies (van Neerven et al., 2010a; van Neerven et al., 2010b) on early S.C.I. neuroinflammatory processes, neuropathic pain as well as motor outcome after experimental S.C.I.

References

Van Neerven et al., 2010 Journal of Neurotrauma [Epub ahead of print]. Repetitive intrathecal $VEGF^{165}$ treatment has limited therapeutic effects after spinal cord injury in the rat

Van Neerven et al., 2010 Neuroscience Letters [Epub ahead of print]. Systemic but not local administration of retinoic acid reduces early transcript levels of pro-inflammatory cytokines after experimental spinal cord injury.