

Relationship between maximal spinal cord compression and neurological recovery

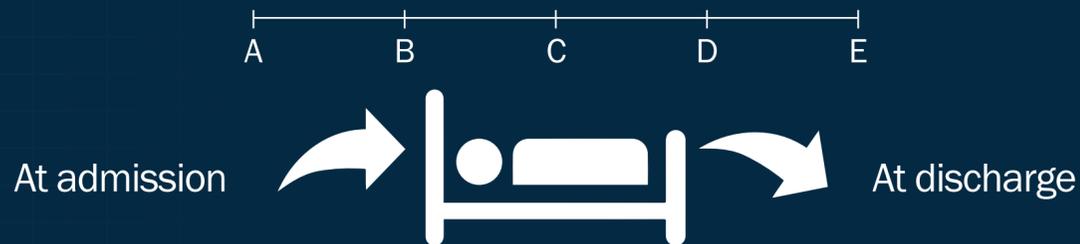
53 patients with traumatic thoracolumbar spinal cord injury



Preoperative mid-sagittal scans

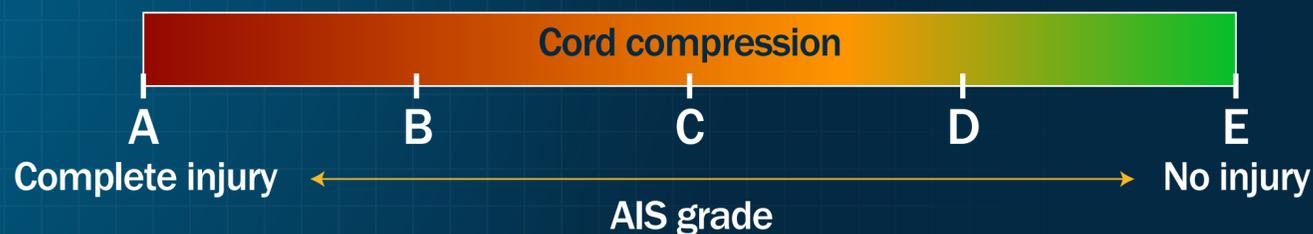
- Spinal cord compression analysis (T2-weighted MRI)
- Spinal cord swelling analysis (MRI)
- Osseous canal compromise analysis (MRI + CT)

Neurological recovery assessed by change in AIS* grade

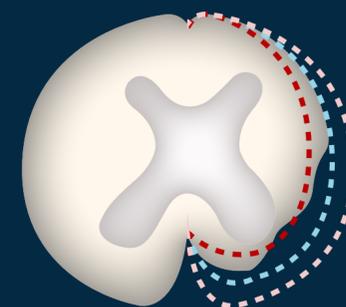


*AIS: American Spinal Injury Association Impairment Scale

Median spinal cord compression increased as AIS grade worsened ($p < 0.05$)



Chances of improvement in AIS grade were influenced by the degree of spinal cord compression



- ≥ 2 grade improvement
- 1 grade improvement
- 0 grade improvement

Greater spinal cord compression is associated with an increased likelihood of severe neurological deficits following thoracolumbar spinal cord injury.

Acute Thoracolumbar Spinal Cord Injury: Relationship of Cord Compression to Neurological Outcome
 Skeers et al. (2018) DOI: 10.2106/JBJS.16.00995

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