

Prevalence of pain in spinal cord injury during inpatient rehabilitation: Data from the Dutch Spinal Cord Injury Database

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Background

- Chronic pain has a significant impact on quality of life in spinal cord injury (SCI)
- Two types: nociceptive and neuropathic pain
- Prevalence of SCI-related pain has a high variability in current literature

Aims

To identify:

- The prevalence of SCI-related pain during inpatient rehabilitation
- Severity of SCI-related pain
- A possible relation to different patient and lesion characteristics

Methods



Prospective cohort



Patients admitted for inpatient rehabilitation in the Netherlands



Nov 2013 – Aug 2019

Results

Sample size: 2700
Male: 64.0%
Mean age at admission: 57 ± 16.4
Traumatic SCI: 38.5%
Tetraplegia: 44.6%
AIS D: 60.9%

Prevalence at admission:

- Nociceptive pain: 40.2%
- Neuropathic pain: 30.6%

Prevalence at discharge:

- Nociceptive pain: 25.4%
- Neuropathic pain: 31.5%

Mean NRS at admission:

- Nociceptive pain: 4.40 ± 2.21
- Neuropathic pain: 4.94 ± 2.37

Mean NRS at discharge:

- Nociceptive pain: 4.26 ± 2.17
- Neuropathic pain: 4.50 ± 2.29

ORs for nociceptive pain

	OR at admission	OR at discharge
Female	1.17	1.43*
≤44 vs ≥75	1.14	0.97
45-54 vs ≥75	1.09	1.06
55-64 vs ≥75	0.92	1.07
65-74 vs ≥75	0.99	0.96
AIS A vs AIS D	1.07	0.88
AIS B vs AIS D	0.69	0.64*
AIS C vs AIS D	0.77	0.82
Traumatic	1.75*	1.6*
Tetraplegia	0.8	0.86

* p < 0.05

ORs for neuropathic pain

	OR at admission	OR at discharge
Female	1.52*	1.83*
≤44 vs ≥75	1.64*	1.76*
45-54 vs ≥75	1.29	1.84*
55-64 vs ≥75	1.21	1.77*
65-74 vs ≥75	1.04	1.46
AIS A vs AIS D	0.91	1.17
AIS B vs AIS D	0.79	1.05
AIS C vs AIS D	0.99	0.99
Traumatic	1.38*	1.45*
Tetraplegia	1.2	1.44*

* p < 0.05

Conclusions

- SCI-related pain is highly prevalent during inpatient rehabilitation
- Women and traumatic SCI are at risk of having nociceptive pain
- People with AIS B have a decreased risk of nociceptive pain
- Women, younger people, traumatic SCI or tetraplegia are at risk of having neuropathic pain.



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