



Editorial Comment: Epidemiology of Spinal Cord Injury in Adults in Sweden, 2016-2020: A Retrospective Registry-Based Study

Charlotta Josefson¹, Tiina Rekand^{1,2}, Åsa Lundgren-Nilsson¹, Katharina S. Sunnerhagen¹

¹Department of Clinical Neuroscience, Sahlgrenska Academy, Institute of Neuroscience and Physiology, Gothenburg University, Gothenburg, Sweden; ²Department of Neurology, Haukeland University Hospital, Bergen, Norway

Neuroepidemiology. 2024 Aug 13:1-9 Online ahead of print.

DOI: 10.1159/000540818 | ACCESS: 39137737

Nilson Marquardt Filho¹, Marcio A. Averbek^{1,2}

¹Departamento de Urologia, Hospital São Lucas, Pontifícia Universidade Católica do Rio Grande do Sul - PUCRS, Porto Alegre, RS, Brasil; ²Coordenador de Neurourologia do Núcleo de Disfunções Miccionais do Hospital Moinhos de Vento, Porto Alegre, RS, Brasil

COMMENT

This is a retrospective registry-based study over 4 years at the National Quality Register for Rehabilitation Medicine in Sweden, which included 26 units around the country and evaluated the epidemiological characteristics of the Swedish spinal cord injury (SCI) population from January 2016 to December 2020. The data analyzed were gender, age, etiology, level of injury, neurogenic bowel, bladder dysfunction, complications during rehabilitation and the need for positive airway pressure or ventilator. Mean age was 56 years (male = 66%). Tetraplegia was more common among traumatic SCI (TSCI) than non-traumatic SCI (NTSCI). The incidence was 11.9–14.8 per million for TSCI and 8.9–11.8 per million for NTSCI. At discharge, 8% of patients needed a breathing aid. Of those who were ventilator-dependent at discharge, 75% had a TSCI. Disturbed bowel and bladder functioning were noted in 58% of patients at discharge. The median time spent at the unit was 40 days, but it was approximately 2 weeks longer for those with a TSCI.

SCI is a major cause of long-term disability, with a higher prevalence among males (1,2). The main complications among these patients were pyelonephritis (14.5% of TSCI cases and 4.5% of NTSCI cases) and pressure ulcers (10.2% of TSCI cases and 3.3% of NTSCI cases). Sweden has a lower incidence of SCI and its complications in comparison to Western Europe and globally (3), maybe due to increased awareness initiatives. With falls being the primary cause of TSCI and a high age at beginning, the Swedish SCI population has a pattern resembling that of other Scandinavian countries.

CONFLICT OF INTEREST

None declared.

REFERENCES

1. GBD Spinal Cord Injuries Collaborators. Global, regional, and national burden of spinal cord injury, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019. *Lancet Neurol.* 2023;22:1026-47. doi: 10.1016/S1474-4422(23)00287-9. Erratum in: *Lancet Neurol.* 2024 Apr;23(4):e8. doi: 10.1016/S1474-4422(24)00095-4.
2. Halvorsen A, Pettersen AL, Nilsen SM, Halle KK, Schaanning EE, Rekand T. Epidemiology of traumatic spinal cord injury in Norway in 2012-2016: a registry-based cross-sectional study. *Spinal Cord.* 2019;57:331-8. doi: 10.1038/s41393-018-0225-5.
3. Singh A, Tetreault L, Kalsi-Ryan S, Nouri A, Fehlings MG. Global prevalence and incidence of traumatic spinal cord injury. *Clin Epidemiol.* 2014;6:309-31. doi: 10.2147/CLEP.S68889.

Correspondence address:

Márcio Averbeck, MD, PhD

Hospital Moinhos de Vento

R. Ramiro Barcelos, 910

Moinhos de Vento

Porto Alegre, RS, 90560-032, Brasil

E-mail: marcioaverbeck@gmail.com

ARTICLE INFO

 **Márcio Averbeck**

<https://orcid.org/0000-0002-8127-7153>

Submitted for publication:

January 01, 2025

Accepted:

January 10, 2025

Published as Ahead of Print:

February 15, 2025