

Comment on the paper “Epidemiology of worldwide spinal cord injury: a literature review”

Mohamed H Elshahidi

Faculty of Medicine, Mansoura
University, Mansoura, Egypt

Dear editor

I read with interest the article by Kang et al,¹ in which they reviewed the literature to summarize current evidence about spinal cord injury worldwide. Although the topic is interesting and important, some considerations of their review design are discussed.

First, the authors have searched Embase, PubMed, Medline, and Web of Science. Although these databases index many of the published research, there are also other databases that should be considered. For example, Index Medicus for the Eastern Mediterranean Region (IMEMR) and African Index Medicus contain articles published in journals that are not indexed in some of these main databases. This affects the review's ability to screen all available evidence in order to end up with a more accurate and sound summary of the literature. Also, this may lead to some limitations (database bias).²

Second, the review restricted its search process to articles published in English. Since the review addresses the topic from a worldwide point of view, it should have considered articles published in other languages. This may lead to language bias.²

Third, the quality of the included studies has not been assessed. Since studies use different methods, their methods may affect the reporting of their results. Thus, it is important to consider the quality of the included studies in order to investigate the effect of it on the reported results. Ignoring this may lead to quality bias.²

Fourth, the databases were searched using a limited “pool” of keywords. Since the review is addressing the epidemiology of spinal cord injury (either traumatic or non-traumatic), some more keywords should have been used to increase the access of the search query to as many relevant articles as possible. For example, the following keywords could be used: incidence, frequency, prevalence, traumatic myelopath*, spinal cord contusion, post-traumatic myelopath*, spinal cord transection, spinal cord laceration.

For example, I have searched PubMed, Web of Science, Embase, Scopus, IMEMR, and African Index Medicus using the previously mentioned keywords. I limited the search for Iran, as an example. After title and abstract screening, five papers pertaining to the review topic have not been included in it.³⁻⁷ Two of them were published in Persian.

Disclosure

The author reports no conflicts of interest in this communication.

Correspondence: Mohamed H Elshahidi
Faculty of Medicine, Mansoura University,
El Gomhouria Street, Mansoura, Dakahlia
Governorate 35516, Egypt
Tel +20 102 518 5264
mohamedelshahidi@students.mans.edu.eg

References

1. Kang Y, Ding H, Zhou H, et al. Epidemiology of worldwide spinal cord injury: a literature review. *Journal of Neurorestoratology*. 2017;2018(6):1–9.
2. Glossary | Cochrane Bias [Internet]. Available from: <http://methods.cochrane.org/bias/glossary>. Accessed February 16, 2018.
3. Derakhshanrad N, Yekaninejad MS, Vosoughi F, Sadeghi Fazel F, Saberi H. Epidemiological study of traumatic spinal cord injuries: experience from a specialized spine center in Iran. *Spinal Cord*. 2016;54(10):901–907.
4. Rahimi-Movaghar V, Moradi-Lakeh M, Rasouli MR, Vaccaro AR. Burden of spinal cord injury in Tehran, Iran. *Spinal Cord*. 2010;48(6):492–497.
5. Yousefzadeh-Chabok S, Behzadnia H, Kouchakinejad-Eramsadati L, Hosseinpour M, Alijani B, Taghinejadi O. Incidence of Spinal Cord Injury in Traumatic Patients Admitted to a Trauma Referral Center in Guilan. *Iranian Journal of Neurosurgery*. 2015;1(1):39–42.
6. Fakharian E, Tabesh H, Masoud SA. [An epidemiologic study on spinal injuries in Kashan]. *J Guilan Univ Med Sci*. 2004;13(49):80–85. Available from: <http://journal.gums.ac.ir/article-1-683-en.html>. Accessed April 27, 2018. Persian.
7. Sharif-Alhoseini M, Rahimi-Movaghar V. Hospital-based incidence of traumatic spinal cord injury in Tehran, Iran. *Iran J Public Health*. 2014;43(3):331–341.

Authors' reply

Yi Kang^{1,2,*}

Han Ding^{1,2,*}

Hengxing Zhou^{1,2}

Zhijian Wei^{1,2}

Lu Liu^{1,2}

Dayu Pan^{1,2}

Shiqing Feng^{1,2}

¹Department of Orthopaedics, Tianjin Medical University General Hospital; ²Tianjin Neurological Institute, Key Laboratory of Post-Neuroinjury Neuro-repair and Regeneration in Central Nervous System, Ministry of Education and Tianjin City, Tianjin, People's Republic of China

*These authors contributed equally to this work

Correspondence: Shiqing Feng

Department of Orthopaedics, Tianjin Medical University General Hospital, 154 Anshan Road, Heping District, Tianjin 300052, People's Republic of China

Tel/fax +86 22 2718 3812

Email sqfeng@tmu.edu.cn

Dear editor

First, I would like to thank Mohamed H Elshahidi for his excellent suggestions for the article. After careful consideration, we decided to respond to these comments.

As for language bias, English is the most widely used language. Most spinal cord injury articles are published in English. On the one hand, articles published in other languages are difficult to search; on the other hand, it is difficult to understand the content, even details. Some other language articles were indeed neglected; we will do our best to overcome this problem and try to conduct more comprehensive work in the future.

The comments regarding database bias, article quality bias, and keywords are relevant, which may have resulted in incomplete retrieval of articles. These issues were neglected in our previous work. In future work, we will pay attention to these details and improve them.

Thanks again to Mohamed H Elshahidi for his careful reading of our article and constructive suggestions. We will try our best to improve these issues and perfect our work in future research.

Disclosure

The authors report no conflicts of interest in this communication.

Dove Medical Press encourages responsible, free and frank academic debate. The content of the Journal of Neurorestoratology 'letters to the editor' section does not necessarily represent the views of Dove Medical Press, its officers, agents, employees, related entities or the Journal of Neurorestoratology editors. While all reasonable steps have been taken to confirm the content of each letter, Dove Medical Press accepts no liability in respect of the content of any letter, nor is it responsible for the content and accuracy of any letter to the editor.

Journal of Neurorestoratology

Publish your work in this journal

The Journal of Neurorestoratology is an international, peer-reviewed, open access online journal publishing original research and review articles on the subject of Neurorestoratology. To provide complete coverage of this revolutionary field the Journal of Neurorestoratology will report on relevant experimental research, technological advances,

Submit your manuscript here: <https://www.dovepress.com/journal-of-neurorestoratology-journal>

and clinical achievements. The manuscript management system is completely online and includes a very quick and fair peer-review system, which is all easy to use. Visit <http://www.dovepress.com/testimonials.php> to read real quotes from published authors.

Dovepress