Letter to the Editor

Response to – Adverse events associated with the use of cervical spine manipulation or mobilization and patient characteristics: A systematic review

We wish to thank Dr. Tuchin for his letter to the Editor in response to our paper. However, we dispute his contention that our reporting of cervical artery dissection in 57% of reported cases may give the reader “a very distorted picture on risks of dissection”. The data speaks for itself. Although cervical arterial dissections (CeAD) is one of the most serious adverse events (AE), in our review we appraised all described AE and not only CeAD. Furthermore, as we described in our discussion, we did not address causality in our review (Kranenburg et al., 2017).

As we pointed out in our introduction and discussion, major AE seem to be rare and appear to be under-reported. The fact that AE following cervical spine manipulation or mobilization are under-reported makes determination of the exact incidence rates impossible to accurately determine. We agree that the risk is very low when compared to other interventions for neck pain and headaches, but that should not absolve clinicians from considering risks and benefits in the use of cervical spine manipulation. We acknowledge that factors such as a latency periods make it harder to identify and report AE. Due to this delay of symptoms, the manipulating professional might not even be aware of the AE following his/her treatment. Nevertheless, we strongly advise all manipulating professionals to report AE properly with detailed patient characteristics and treatment information. Particularly, since the patient and treatment characteristics in those reports may be of great value to identify patients at risk.

We did not feel the issue of whether published papers mistakenly stated it was a “chiropractic treatment” or a “chiropractic manipulation” was worth commenting on. The aim of our review was to examine the association between serious AE following manipulation and patient characteristics. It was not our intention to cast blame on any one profession for the occurrence of such AE. However, we stand by the accuracy of Fig. 3 in our paper. In contrast to what Dr. Tuchin seems to suggest, we collected all data from the full-text articles and not from the titles or abstracts. The paper by Hufnagel et al. (1999), describes 10 CeAD cases following ‘chiropractic manipulation’ performed by ‘non-chiropractors’. However, in that paper the professionals were summarized and it was not clear which professionals were involved in the 10 individual cases. Consequently, we identified all professionals in those cases as “unknown” and assigned them appropriately in Fig. 3.

Finally, we agree that more detailed clinical information in case reports of AE is important. Our review examined the association between the occurrence of AE and cervical spine manipulation or mobilization, and our focus was to examine for particular patient characteristics that might be more strongly associated with AE. Our findings suggest an urgent need for better attention being paid to patient characteristics that might be more strongly associated with occurrence of such AE.

References


H.A. Kranenburg*a,b,c,e, M.A. Schmitt*f, E.J. Puentedura*d, G.J.R. Luijckx*g, C.P. Van der Schansa,b

a Research Group Healthy Ageing, Allied Health Care and Nursing, Hanze University of Applied Sciences, Groningen, The Netherlands
b University of Groningen, University Medical Center Groningen, Department of Rehabilitation, Groningen, The Netherlands
c Research Centre Innovations in Care, Rotterdam University of Applied Sciences, Rotterdam, The Netherlands
d University of Nevada Las Vegas, School of Allied Health Sciences, Department of Physical Therapy, Las Vegas, NV, USA
e University of Groningen, University Medical Center Groningen, Department of Neurology, Groningen, The Netherlands

* Corresponding author. Hanze University of Applied Sciences Groningen, PO Box 3109, 9701DC, Groningen, The Netherlands.
Tel.: +31505953867.
E-mail address: h.a.kranenburg@pl.hanze.nl (H.A. Kranenburg).