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LETTER TO THE EDITOR

Are we still missing important amount of data through meta-analyses?: a letter to the editor regarding the article by Soltani et al. published in the European Spine Journal about spontaneous spinal epidural hematomas in children

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Dear Editor:

I have read the review article about spontaneous spinal epidural hematomas in children written by Soltani et al. [1] and published in the October 2019 issue of the *European Spine Journal*, with great interest. The authors presented their review using "Preferred Reporting Items for Systematic Reviews and Meta-Analyses" (PRISMA) guidelines, even though they had not mentioned it in the materials and methods section of their article. They had made a thorough search of the literature using multiple databases. However, I have noticed that many other pediatric cases with spontaneous spinal epidural hematoma are missing.

My colleague and I made a topic review about pediatric cases with spontaneous spinal epidural hematoma published in Child's Nervous System in 2016 [2]. When I compared data of Soltani et al. and ours, there were some disparities. They found a total of 31 relevant articles about spontaneous spinal epidural hematomas in children. Five of those 31 articles have recently been published. Ten of them had not been mentioned in our previous work. Sixteen of the remaining articles were mentioned in both papers. They missed previous 61 pediatric cases of spontaneous spinal epidural hematoma including the one of ours. Despite their rigorous effort to depict the clinical picture of a rare instance, the authors had missed important amount of data that might have changed their conclusions. To overcome such circumstances, possible pitfalls of meta-analyses and systematic reviews should be reviewed and discussed by all fields of science. Once identified, those problems could be overcome by machine learning. Machine learning has become popular nowadays in many areas of science including spine. Machine learning algorithms would overcome search-related defects, once it learns the systematic thinking of the problem.

Compliance with ethical standards

Conflict of interest The author declares that he has no conflict of interest.

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