Reviewer’s report

Title: Spinal epidural hematoma without significant trauma in children: Two case reports and review of the literature

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Reviewer: Maurizio Domenicucci

Reviewer's report:


This work described two case of acute pediatric spinal epidural hematoma with a pertinent review. The topic is interesting, but the study presents with some critical issues.

- from the title, the two cases are described and classified as "spontaneous". However, this definition has to be considered inappropriate, as reported in recent literature1: "We did not define any groups under the term "spontaneous" because, in the literature, this term is used to describe patients with idiopathic SEH as well as those with coagulopathy, female patients who were pregnant, patients undergoing treatment with antiplatelet drugs, those with vascular malformations, or patients with a combination of these conditions, leading to some confusion in terminology.". Indeed, the first of the cases is considered to be "idiopathic", without any known etiology, while the other one may be a consequence of an arteriovenous malformation.

- The introduction is replaced by a "Background" reporting some improper conclusions (Pag. 4).

- Line 6: "It is mostly observed in adults during the fourth and fifth decades," whereas it has been recently1 reported that "The age distribution curve in decades was bimodal with peak prevalence in the 2nd and 6th decades.". This finding allows to distinguish the etiology in young and adult patients separately, and should be discussed in this work.

- Line 25: "Early surgical decompression likely leads to good outcomes" whereas it has been stated in literature that "Coagulopathy, greater size (length) of SSEH, and preoperative complete spinal dysfunction were found to contribute to poor postoperative functional recovery (p &lt; 0.05).". Regardless of etiology, pre-operative status and size of hematoma, early surgical intervention is not the only factor able to influence the outcome.

- Paragraphs on Materials and Methods and Results are lacking. Section about Discussion and Conclusions include all previous issues. Pag. 6 e 7 of Discussion and Conclusions, comprising the cited tables, describe results of the review in relation to "Appendix 1", which is not cited in the work.

- Despite the literature reported, conclusions do not suggest new insights about etiology and treatment of pediatric epidural hematomas.
In conclusion, even though the topic is undoubtedly interesting, the way through which the work has been built is poor, it does not perform an accurate review of the literature and does not distinguish pediatric features of this pathology from those of the general population. In such a presentation, publication is not advised, even if it might occur with a huge review of the work.

References

1) - Domenicucci M et al.: Spinal epidural hematomas: personal experience and literature review of more than 1000 cases. J Neurosurg Spine; 27(2):198-208, 2017


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Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

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