Reviewer’s report

Title: Case Report: Magnesium Sulphate and Ophthalmic Artery Doppler velocimetry in patients with severe pre-eclampsia.

Version: 0 Date: 27 Aug 2017

Reviewer: F. da Silva Costa

Reviewer's report:

1. Do you believe the case report is authentic?

   Yes

2. Do you have any ethical concerns? Please consider if local Institutional Review Board approval or ethical approval was obtained (if appropriate) and if the patient (or their parent or guardian in the case of children under 18) gave written, informed consent to publish this case and any accompanying images. A statement to this effect should appear in the manuscript.

   Comments: No

3. Does the Introduction explain the relevance of the case to the medical literature?

   Introduction could be improved focusing on the vascular aspects of MgSo4 action

4. Does the article report the following information? Where information is missing, please specify.

   a. The relevant patient information, including:

      - De-identified demographic information (age, gender, ethnicity)
      - Main symptoms of the patient
      - Medical, family and psychosocial history
      - Relevant past interventions and their outcomes

   b. The relevant physical examination findings
c. Important dates and times in this case (if appropriate, organized as a timeline via a figure or table); if specific dates could lead to patient identification, consider including time relevant to initial presentation, i.e. initial presentation at $T = 0$, follow up at $T = 1$ month.

d. Diagnostic assessments, including:
   - Diagnostic methods
   - Challenges (e.g., financial, language/cultural)
   - Reasoning and prognostic characteristics (e.g., staging), where applicable

e. Types and mechanism of intervention

f. A summary of the clinical course of all follow-up visits

Comments: This is not a case report, but the report of a small series. Thus, all above is not applicable

5. Is the interpretation (discussion and conclusion) well balanced and supported by the case presented?

Comments: It is not clear how the Doppler indices comparison was performed. I believe it was based on the comparison of Dopplers before treatment with the last measurement 60 min after medication. This should be very clear. A "tendency" line could be added to all graphs and it will help interpretation. I don't think it is correct to claim a "tendency" to increased RI and PI with only 6 cases.

Discussion should go deeper trying to explain the mechanisms of action of MgSO4 and how it could be checked via ophthalmic artery Doppler
6. Is the anonymity of the patient protected? Please consider any identifying information in images such as facial features or nametags, whether the patient is named etc. If not, please detail below.

   Yes

7. Is the Abstract representative of the case presented?

   Comments: Yes

8. Does the case represent a useful contribution to the medical literature?

   Comments: Yes

9. Additional comments for the author(s)? There is a duplication of table 1. The second one looks better.

   Level of interest
   Please indicate how interesting you found the manuscript:

   An article of importance in its field

   Quality of written English
   Please indicate the quality of language in the manuscript:

   Needs some language corrections before being published

   Declaration of competing interests
   Please complete a declaration of competing interests, considering the following questions:

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   2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

   3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?
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5. Do you have any other financial competing interests?

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If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

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