Reviewer's report

Title: Case Report: shock septic from multidrug resistant descending necrotizing mediastinitis - intensive multimodal approach IgM enriched immunoglobulins and Polymyxin B hemoperfusion

Version: 1 Date: 15 Oct 2017

Reviewer: Tibor Fulop

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:

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

Yes/No

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 yes
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: yes
   - 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: [see comment below]

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

Comments: Discussion needs shortening modest amount of re-writing

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? Yes

Comments:

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

Comments: needs major revision for proper and accurate English. Suggest obtaining help form a professional English writer for revision
9. Additional comments for the author(s)?

Overall conceptual questions:

1. the rationale for immunoglobulin preparation with IgM enrichment not sufficiently explained

2. Discussion could be shortened and more focused

3. Table 1 has several empty columns in it - please, delete empty columns

Minor clarifications needed:

- page 3, line 23: "mediastinum in 249 patients [1]" [this would be how many percent ??]

- always list after key parameters (e.g., CRP, procalcitonine) the normal range [in the text]

- inaccurate expression of medication doses: e.g., "Linezolid 1,2gr/Die" [properly: "linezolide 1,200 mg/day"]

- "polimixin B immobilized fiber cartridges" ; do you mean: "immobilized polymyxin-B cartridges"?

Inappropriate use of capitalization in contemporary English:

Septic Methicillin-resistant

Enterococcus Raffinosus, Carbapenem-resistant Acinetobacter Baumanii Shock resistant Bacteria and treated with a IgM enriched immunoglobulin preparation and Direct hemoperfusion caucasian intensive Care Unit Rehabilitation Institute [unless this would be he factual name of the institution] Septic shock Systemic Inflammatory

Response Syndrome case of Mediastinitis was were difficult Unclear medical terms or expression difficult to understand; also 2.8 and 3.8 tooth avulsion a Pneumonia with pleural effusion basing on Chest Rx for with such lesion appeared of liquid consistency with aerui contextual nuclei medical therapy, so, on hold of the result of endotoxin level
Several minor typos: e.g. resistent, "extend form median to left", colture, procalcitonin, "body temperature 40°"

Some abbreviations still not explained upon first mentioning (MOF, SOFA)

On several occasion, improper use of comma (","),or leaving extra space before commas

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

An article whose findings are important to those with closely related research interests

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

Not suitable for publication unless extensively edited

**Declaration of competing interests**
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