Reviewer’s report

Title: Ibuprofen plasma concentration profile in deliberate ibuprofen overdose with circulatory depression treated with therapeutic plasma exchange: a case report

Version: 0 Date: 14 May 2017

Reviewer: Paolo Cotogni

Reviewer’s report:

The paper of Geith et al. has the aim to describe a case of a patient with an ibuprofen overdose due to a suicidal ingestion with providing the profile of his ibuprofen plasma concentrations by repeated blood sampling over a period of 5 days.

Major comments.

The case investigated by the Authors is interesting because of many reasons. Firstly, in the medical literature there are few severe cases present with refractory circulatory failure; secondly, this is first report of a severe ibuprofen intoxication treated with therapeutic plasma exchange; thirdly, this paper provides serial ibuprofen plasma concentrations over a period of 5 days; finally, despite circulatory failure was refractory to aggressive fluid resuscitation and the onset of an acute kidney failure, the patient survived and was discharged 12 days after ICU admission.

The case report is well described and the paper well written.

The results are intriguing and may help to increase the interest on the evaluation of the ibuprofen protein-binding capacities in the overdose setting.

Besides, this case report may promote an open discussion about the use of TPE to treat a patient with this kind of drug overdose because of high costs, potential side effects, and limited availability of TPE.

Minor comments.

From a clinical point of view, may be interesting for the reader to briefly describe the pathophysiology of causal link between the ibuprofen overdose and the onset of the shock status.

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

Yes

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

Yes

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

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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

Acceptable

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