Reviewer’s report

Title: The effect of trauma and alcohol on the relationship between level of cytokines and depression among patients entering psychiatric treatment

Version: 1 Date: 20 Feb 2018

Reviewer: Ann Manzardo

Reviewer's report:
The authors have addressed the majority of my concerns regarding methodology and interpretation. The objectives and outcomes of the study are suitably defined and probably reflect valid relationships; however, the work would benefit from further editing to provide a simplified, uniform message with better organization and transparency. Further, heterogeneity in the study population likely reduced statistical power and significant findings thus the authors may be over-interpreting the individual effects. For example, the focus on nuanced interactions between depression levels and AUD or trauma of marginal statistical difference have little value. The authors should focus on clear and consistent findings. Differences between the present work and prior studies likely reflect individual differences in the sample set and can be explained as such. There is no need to marry a hypothesis that is not supported.

The tables need to be transparent at a glance. Cytokine units should be clear (without all of the zeros) and a legend should explain all p-values. It took some effort to realize what was being compared.

Effects of gender are not specifically addressed as a topic of discussion which is a limitation. The case-control comparison is gender-matched but only in males which is a little odd considering the relative prevalence of females in the sample. Presumably, control samples were samples of convenience, but the outcomes still seem consistent and logical for both genders.

The work will add to the literature particularly in the case of trauma which is rather novel and should really be the central focus of the work.
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

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