Reviewer’s report

Title: The incidence, etiologies, outcomes, and predictors of mortality of acute liver failure in Thailand: a population-base study

Version: 0 Date: 12 Nov 2018

Reviewer: Zhou Zhou

Reviewer's report:

The present study discussed the statistical features of acute liver failure in clinical practice of Thailand. Here are some major concerns:

1. The authors collected the data between 2009 and 2013. Why would the authors select the data in this period? Is there any specific reason of this period? The authors need to provide a reason and discuss the possible changes in the current years.

2. Why are indeterminate cases of ALF so prevalent in the present study? Without knowing the nature of more than 50% of the cases studied in the current report, the conclusions may be skewed or incorrect. Cases selected in the current study may be drastically influenced by other factors. The authors need to provide the reason and justification that the conclusions will be solid.

3. Although mechanic ventilation support shows the most significant difference between the survived and non-survived patients within 30 days treatment, it should not be considered as predictive factor because it is not useful or even misleading to clinical practitioners. As the last resort of treatment, ventilator can be easily correlated to high fatality in any disease. However, it is not a useful indicator of fatality and the clinicians should not reduce its usage for treatment. Similarly, length of hospital stay and renal dialysis are not supposed to be a predictive factor either.

4. There is a lot of contradictory information in the current study. In table 1, male gender, COPD, Hepatitis B, Hepatitis C, non-acetaminophen drugs, vascular cause and urinary tract infection are extremely significant factors. However, they are not at all significant in Table 3. The authors need to explain the reason.

5. In Table 3, acetaminophen is extremely significant and the adjusted hazardous ratio is below 1. The authors need to explain this result and clarify acetaminophen is not protective to ALF.
6. In discussion, the authors compared the 30 day fatality rate in Thailand and United States/United Kingdom. Even though the authors did not jump to any conclusion, the authors should not put them side by side simply like this. The authors need to define the difference of population, medical care, special medical background of the patients, and especially the years when data were collected.

7. If available, the authors should add and analyze other regular treatment methods to the current study, including antibiotic usage, virus management, bleeding control, detoxification, cerebral edema control, etc.

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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