Reviewer's report

Title: Predictors and outcome of patients with acute respiratory distress syndrome caused by miliary tuberculosis: a retrospective study in Chongqing, China

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Reviewer: Surender K Sharma

Reviewer's report:

There are problems in the study design which doesn’t allow for meaningful conclusions from the present manuscript. The data on patients with miliary tuberculosis not developing ARDS is now provided and compared to those developing ARDS. However, there is no information about ATT intake prior to the values of liver enzymes given (at admission), viral hepatitis markers (A,E,C), activity of disease among those with hepatitis B (~10% among cases were positive and no data given for controls), use of other potential hepatotoxic drugs and alcohol intake. Hence, no inference should be drawn from associations of raised AST and ALT (due to miliary TB as discussed) with development of ARDS as shown in tables 2,3 and 4. Further, conclusion has been drawn that DM, ALT, AST, D-dimer, hemoglobin, and albumin were independent predictors of ARDS development; however, no data is given for DM in the table 2 where the parameters are compared. The details of diagnosis of miliary TB in the control group is also lacking.

In the treatment outcome assessment it would have been useful to have a brief mention of criteria’s followed for invasive/ non-invasive ventilation. For eg., it’s given that 40 patients in the group died; however only 38 patients required invasive ventilation. Did all patients die of TB-ARDS or there were other complicating factors like superadded infections, deep venous thrombosis, etc in the course of the illness (indeed the APACHE III score at ICU admission is similar in survivors and non-survivors). Multivariate analysis of outcome factors has not been done.

In the light of the above, I suggest a reject decision for the manuscript.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests