Reviewer's report

Title: Urine IL-18, NGAL, IL-8 and serum IL-8 are biomarkers of acute kidney injury following liver transplantation

Version: 1 Date: 2 August 2012

Reviewer: Yucheng Yan

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Major Compulsory Revisions

1. In methods, serum and urine were collected average around 21hrs. However the author didn't tell us the elevated time point the serum creatinine reported post operation and didn't tell us the average time point for serum creatinine increased more than 50% in AKI group. If the serum creatinine increased around or less than 24hrs post surgery. What's the benefit of these new biomarkers than serum creatinine?.

2. Please add the trends of serum creatine change post operation, whereas not only the .a value. The author should tell us the post-operative serum creatinine in table 2 is the value of which time point. .

3. What's the reason of higher creatinine in non-AKI group than AKI pre-operative? Is there any possibility the is some other factors exist in AKI group, such as malnutrition (low albumin) and inflammation could affect the biomarkers level after surgery?

4. In result, the ROC-AUC were 0.833 for urine NGAL, 0.682 for serum IL-6, 0.773 for urine IL-8, and 0.742 for serum IL-8. However in the figure legend on the last page, the author mentioned P values were 0.3671 for urine NGAL,0.6682 for serum IL-6, 0.0949 for urine IL-8, 0.0803 for serum IL -8. It seems unreasonable. Why the large AUC for urine NGAL got P>0.05?

5. As this is a study in the transplantation and some markers investigated are pro-inflammatory cytokines, we should consider if there are some rejection factors involved in the results. Please add the information of immunosuppression agents after surgery.

Minor Essential Revisions

1. In authors' part, there is no author marked unit 3.

2. In the background, the author mentioned "To date, there have been no reports of using other established AKI biomarkers in OLT patients" except serum or urine NGAL. However it's not updated. Urine L-FABP has been reported as a diagnostic marker of AKI after OLT. Please refer to "Li Y, et al. Urinary neutrophil gelatinase-associated lipocalin (NGAL) and L-type fatty acid-binding protein (L-FABP) as diagnostic markers of early acute kidney injury after liver
3. In methods, please add the surgical approach and the time of anhepatic phase data in both groups as these are considered related with AKI after OLT.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

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'