Author’s response to reviews

Title: TITLE: Risk factors for acute kidney injury following orthotopic liver transplantation: the impact of changes in renal function while patients await transplantation

Authors:

Jose I Iglesias (jiglesias@verizon.net)
John A DePalma (nyy2244@aol.com)
Jerrold S Levine (jslevine@uic.edu)

Version: 4 Date: 7 October 2010

Author’s response to reviews: see over
Jose I Iglesias, DO, FACP, FASN  
Associate Clinical Professor of Medicine  
University of Medicine and Dentistry of New Jersey  
Department of Nephrology  
Ocean Renal Associates  
11 Paulette Lane Howell NJ 07731  
Jiglesias@verizon.net  
732-202-0588  
Fax 732-202-9158  

Editorial Office BMC Nephrology  
10/10/10  

RE: Manuscript for BMC Nephrology, Category Clinical Research paper  
Dear Sirs  

We are submitting the revisions (please see below under comments to reviewers) the manuscript entitled Risk factors for acute kidney injury following orthotopic liver transplantation: the impact of changes in renal function while patients await transplantation. The NIDDK-LTD was established to study the demographics, clinical and laboratory characteristics, and outcomes of patients evaluated for and undergoing OLT. The NIDDK-LTD contains extensive pre- and post-OLT data for 916 recipients from 3 clinical centers: Mayo Clinic, Rochester, Minnesota; University of Nebraska Medical Center, Omaha, Nebraska; and University of California, San Francisco, California. The current study was designed as a retrospective cohort study. Of 916 patients enrolled in the NIDDK-LTD, 688 patients were included in our analysis. The results presented in this paper have not been published previously in whole or part, except in abstract form. The coauthors and respective contributions are as follows: Jose Iglesias D.O. Conception, design, analysis and interpretation of data, drafting the article revision for critically important intellectual content. John DePalma DO data design, review of literature and data abstraction. Jerrold S. Levine M.D., Conception, design, analysis and interpretation of data, drafting the article revision for critically important intellectual content. Disclosures: Jerrold S. Levine, Research funding from Genzyme, Inc. We are extremely grateful for the insightful comments of the reviewers with such excellent experience and credentials in the field.  

Please note I have not resent the tables and figures as these have been accepted on previous submissions and are in your files if you need me to resend them please notify me by email at once.  

Sincerely,  
Jose I. Iglesias DO  FACP  

Reviewer: Giorgina Barbara Piccoli
Major points:
Point 1a)  
a comment on why crucial data (urine output) were not gathered should be of help in understanding the quality of the data collection. (for example, The data are gathered 20 yrs ago, when the attention to urine output was less systematic

These data unfortunately were not available in the NIDDK-LTD database. This fact is stated in the Definitions subsection of the Methods.

"We did not use urine output in defining AKI because of the unavailability of these data in the NIDDK-LTD database."
(page 6, 1st complete paragraph)

Point 1b)  
The sentence: analysis of peri-OLT kidney biopsies should probably be further explained, as this is probably not a general practice.

We agree with the reviewer that this is not standard practice. We meant for the biopsies to be obtained as part of a study protocol. The sentence has been modified as follows:

"Given the scarcity of organs available for simultaneous liver-kidney transplant, there is a need for additional prospective studies, which might include an analysis of peri-OLT kidney biopsies as part of the study protocol, to delineate the impact of pre-OLT renal dysfunction on renal function following OLT."
(page 20, last paragraph)

Question: how was BMI calculated?  
While no formula is devoid of biases and errors and none is validated in ascitic patients, the bias in calculating BMI on the actual body weight should be commented upon.

This is a valid point. We have included the formula for BMI in our Methods:

"BMI was calculated at the time of registration using actual body weight, including ascites, by the following formula:"
(last line of page 5 through 1st line of page 7)

We have also added the following sentence to the Discussion:

"However, it is important to note that the determination of BMI in patients with ascites is fraught with error, and no formula for BMI in these patients has been validated."
(page 17, 1st complete paragraph)

Personal comment.
The paper is based upon an old database, which probably do not reflect, as pointed
out by the referees, the present situations of OLT patients. While I agree with the Authors that there may be a lot to learn from older studies, it is not clear to me, even in the revised version of the paper, why we may still have a specific interest at looking to these data. Is the paper in a way a “model” for understanding the present behaviour of OLT patients and of patients with other forms of AKI. While the answer is presumably Yes, I think that this point should be extensively discussed, from the introduction to the conclusions, to ensure the reader that a lesson for the present may still be found in an old database.

In this regard, I wonder, as the authors commented on the differences between older and present OLT procedures, why not comparing the older data with newer ones?

We take the comment of the reviewer. To help in this regard, we have added the following sentences to our discussion:

"With those caveats in mind, we believe that the impact of pre-operative changes in renal function on the risk for peri-OLT AKI is a reflection of the cirrhotic milieu per se, rather than any specific level of hepatic dysfunction, as indicated by the MELD score. In addition, our have results may more general relevance and extend to surgical procedures other than OLT in patients with end-stage liver disease. Analyses of newer databases should help to resolve both of these points."

(page 19, end of incomplete paragraph at top of page)