Reviewer's report

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

Version: 1 Date: 3 July 2010

Reviewer: Noel Gibney

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Major compulsory revisions:

This study reports results obtained from analysis of a prospectively collected database of 916 patients who received their first orthotopic liver transplant (OLT) at three medical centers between April 15, 1990, and June 30, 1994. After exclusions 688 patients were studied. This actual number of patients studied should be included in the abstract. The database was analyzed for factors associated with the development of acute kidney injury (AKI).

The manuscript is well written and of appropriate length. Statistical analysis is valid. The figures and tables are provided as internet links. "Transplant" is spelled incorrectly in Fig 1 and should be corrected. Fig 1 is somewhat confusing and the legend should be expanded to more fully describe this figure.

The findings that the absolute level of renal function pre-OLT was not a risk factor for AKI post-OLT and patients whose renal function declined while awaiting OLT were protected from AKI are surprising. Unfortunately, this data is between 16 and 20 years old. This important fact is missing from the abstract and should be included.

Currently, patients receiving OLT tend to have more severe hepatic and renal dysfunction and higher MELD scores than in the early 1990’s. In addition, there have been significant perioperative and intraoperative advances since these patients received their liver transplants. These differences limit the value of this study and the ability to apply the conclusions to the management of current day patients receiving OLT.

In this respect it is unusual that the authors do not indicate why it has taken so many years to analyze and present this information. There should be more discussion and explanation of the difference in eras.

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

Quality of written English: Acceptable
Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I have no competing interests