Reviewer’s report

Title: Shorter Daily Dwelling Time in Peritoneal Dialysis Attenuates the Epithelial-to-Mesenchymal Transition of Mesothelial Cells

Version: 3 Date: 29 April 2013

Reviewer: Manuel López-Cabrera

Reviewer’s report:

General:
In this manuscript the authors show that mesothelial cells derived from peritoneal dialysis-effluents may have different phenotypes. These results are in agreement with previous data published by others. They show that 47% of the patients drained cells with EMT, 28% with non-EMT, and 15% with a mixed population. The different types of cell morphologies were validated by the expression of cytokeratin 18. They demonstrate that patients receiving persistent PD therapy (dwelling time of 24 h/day) had significantly higher EMT tendency, when compared with shorter dwelling time, and this tendency was not suppressed by one exchange/day with icodextrin solution. There are some comments that should be addressed to improve the manuscript.

Comments:

1.- It is not clear from the materials and methods section how many samples of effluent-derived mesothelial cells were analyzed in each patients. This reviewer is concerned about the stability of the phenotype of mesothelial cells. That is: was the phenotype of MCs stable in different samples from the same patient taken in short time periods apart?

2.- It is not clear why the authors employed only morphology and cytokeratin 18 as EMT markers. Other epithelial and mesenchymal markers could be used to reinforce the EMT process.

3.- In vitro experiments of exposure of mesothelial cells to PD fluid with different dwelling times would improve the work and would provide mechanistic insight.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

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