Reviewer’s report

Title: A novel differential diagnostic model based on multiple biological parameters for immunoglobulin A nephropathy

Version: 2 Date: 1 April 2012

Reviewer: Francois Berthoux

Reviewer’s report:

The manuscript has improved considerably, however there is still a Major point to correct before final acceptance:

The name and the goal of the study is “multiple biological parameters” and the parameter “manifestation” which is purely clinical should be suppressed in Tables 1, 3, 4, and 5. In Table 2, you should produce the comparisons in both sets between IgA and non-IgA and especially for the clinical manifestations using appropriate statistics. Obviously, there is a well-known predominance of males in IGAN and a dominant presentation of nephrotic Sd in non-IGAN!

The most important biological parameter is sIgA which is linked to the pathogenesis of IGAN, and this should be developed in the discussion; the others are TP, Alb, CH, LDL-c, sIgG and even Ca which are linked to the predominance of nephrotic Sd in non-IgA. It is important to discuss the discriminant effect of CA 19.9, CA15.3, DB and Fibrinogen!!

For Tables 6, 7, and 8, the model should be adapted starting from the clinic: gender(male: yes or no) and manifestation (nephrotic Sd: yes or no) and adding one by one the biological parameters by order of significance (ROC curves): sIgA first and check the improvement of prediction(used the net reclassification index of Pencina) and so on. This will improve further this paper.

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:

no conflict of interest