Reviewer's report

Title: Validation of the Absolute Renal Risk of Dialysis/Death in Adults with IgA Nephropathy Secondary to Henoch-Schonlein Purpura: a monocentric cohort study.

Version: 1 Date: 20 February 2013

Reviewer: Seung Hyeok Han

Reviewer's report:

The authors provided a long-term observation of secondary IgAN due to HSP at a single center. They applied the absolute relative risk score based on clinical factors such as proteinuria, hypertension, and pathologic score to the outcome analyses. I have several major concerns listed below.

- Although ARR score was validated in previous studies, it is not clear why baseline eGFR is not included here. It is obvious that decreased baseline kidney function is the most important risk factor in predicting the future renal outcomes.

- In this regard, please provide data for multivariable Cox analysis adjusted for eGFR.

- I wonder if baseline proteinuria was an independent predictor. It is clear that baseline proteinuria decreased from baseline to the last follow-up and approximately 60% patients had proteinuria < 0.3 g/day at the last follow-up (Table 1). Coppo et al. suggested that proteinuria at the onset in HSPN patients reflects acute inflammation and potentially reversible damage, thus decreasing its predictive value on long-term renal survival (AJKD 47: 993-1003, 2006). If baseline proteinuria were not an independent predictor, the authors should reconsider inclusion of baseline proteinuria in ARR score. If this is the case, ARR score mainly depends on pathologic findings, particularly sclerosis or fibrosis, which is considered ‘point of no return’. This weakens the strength of ARR score because such pathologic lesions are well-known predictor of long-term outcome and are well correlated with eGFR.

- They set primary outcome as dialysis or death. Were deaths related to kidney disease? Given the slowly progressive nature of IgAN or HSPN, it can be easily expected that elderly patients at the time of diagnosis will eventually die irrespective of kidney disease progression. For example, the authors clearly stated that patients over 50 years of age had higher ARR score than younger patients. I don’t think it is fair that such deaths are counted as outcome measures. The authors should individually analyze data by either dialysis or death. It would be much clearer that a 50% decline in eGFR or a doubling of the baseline creatinine is included as a primary endpoint.

- I suggest to provide a comprehensive table showing demographic, clinical and laboratory data and outcomes according to the ARR score (0 to 3).
- Because they analyzed only HSPN patients and comparative analysis between HSPN patients and IgAN patients was not conducted, it is not proper to conclude that overall prognosis in adult patients was worse for HSPN.

- It is not clear how factors were selected in the multivariable Cox models and which factors were adjusted for.

- In discussion, the authors should be careful in interpreting the presence of crescents. According a paper by katafuchi et al, which the authors cited in the manuscript, the presence of crescents was an independent predictor only in patients with severe IgAN, whereas such association was not seen in patients with preserved kidney function. In addition, there is concern that crescents per se are not signs of irreversible damage in patients with HSPN, thus may not be predictive of long-term outcome. Because mean eGFR of the study subjects was 82 ml/min/1.72m2, which suggest that their baseline kidney function was quite good, it is unlikely that crescents could predict long-term outcomes.

**Level of interest:** An article of limited interest

**Quality of written English:** Not suitable for publication unless extensively edited

**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'.