Reviewer’s report

Title: Efficacy and safety of Mycophenolate Mofetil treatment on IgA nephropathy: a systematic review

Version: 1 Date: 30 July 2014

Reviewer: Hong Zhang

Reviewer’s report:

General comment:

In this meta-analysis of 273 people with IgA nephropathy included in 7 available trials, Chen and colleagues found that a relatively short term of MMF use might be beneficial in IgAN patients with proteinuria, while no statistical difference was found in the whole therapeutic effect of MMF on reducing proteinuria and protecting renal function, as well as incidence of side effects compared with controls. Moreover, MMF was thought superior to cyclophosphamide in better therapeutic effects and less adverse reactions. On the basis of the above findings, the authors concluded that short term of MMF use may be beneficial in IgAN patients.

The current study has potential interest for the treatment strategy in IgAN, however, my major criticize is the sample size is limited and the studies are highly various, as high quality meta-analysis should benefits from large volume of data in high quality trials.

Major Compulsory Revisions

Materials and Methods:

1. The authors state that undertook a systematic review of the literature according to the approach recommended by the PRISMA guidelines. However, the manuscript in its current form is missing many elements from the PRISMA checklist (e.g., Protocol, handling of Risk of Bias data, use of PRISMA flowchart). The authors should include a PRISMA checklist in the Supplemental Material: http://www.prisma-statement.org/statement.htm. Please add the study protocol with the detail search strategy as a supplemental material, and update the search results.

2. Because the KIDGO guideline suggest not using immunosuppressive therapy in patients with GFR<30 ml/min per 1.73 m2 unless there is crescentic IgAN with rapidly deteriorating kidney function, please clarify how many studies included the patients with GFR<30 ml/min per 1.73 m2?

3. The included studies were highly heterogeneous, the authors should also describe how they plan to adjust for differences in those studies and patients characteristics across studies.

Results
1. The authors should consider using the PRISMA template for Figure 1: http://www.prisma-statement.org/statement.htm. Please put the Additional file 1 “characteristics of the included studies” as table 1, then provide mean GFR, mean proteinuria and mean SBP (if available) in Table 1. The risk of bias results and funnel plots should be presented in the Supplemental appendix.

2. Outcome (paragraph 1): does the therapeutic effect means the composite endpoint of complete remission significant remission and partial remission? If so, please give a clear definition, if not, please specify the endpoint event for RR separately.

3. Figure 2: it is a subgroup analysis of study duration, the between-group heterogeneity is not applicable, and the authors should give a meta-analysis of all included RCTs to assess the heterogeneity.

4. As the limited number of RCTs available, it would be more informative if the authors could add the observational studies and conduct a subgroup analysis of observational studies.

Discussion

1. Please discuss the potential for this bias and its effect on your conclusions that a relatively short term of MMF use may be beneficial, and explain why short term of MMF use may be beneficial.

2. The authors should consider the analysis of heterogeneity source from other respects, for example race, baseline renal function, drug doses or others in the discussion?

Minor Essential Revisions

1. Make sure to give the abbreviation and complete description the first time it appears, not the second time, see ESRD (Introduction first paragraph).

2. Materials and Methods: in the first paragraph Cochrane Library was spelled repeatedly.

3. Add the databases starting data separately in the text (material and methods first paragraph), for example MEDLINE (1946- October 2013) and update your research results.

4. Please add the number of literature search form each database in Figure 1, also the duplicate number in Figure 1 if available.

5. Please consider revising the description from “with placebo (steroid)”, what it means? Does it mean “with placebo or steroid”???

6. Suggest the authors consult a native English speaker to polish the manuscript.

Discretionary Revisions

1. Outcome measures should be in front of the Statistical analysis.

2. For your revisions, please carefully follow the PRISMA Checklist.

Level of interest: An article of importance in its field
Quality of written English: Needs some language corrections before being published

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