Reviewer's report

Title: Outcome of corticosteroid administration in autoimmune pulmonary alveolar proteinosis

Version: 1 Date: 21 April 2015

Reviewer: Matthias Griese

Reviewer's report:

The paper “Outcome of corticosteroid administration…” reports on a retrospective study cohort of subjects with autoimmune PAP from specialized centres in Japan. The authors generate a clear message, i.e. steroid treatment is not only harmless, but harmful in this group of subjects, who already have an immune defect.

There are some points which need clarification:

1. A major downside of the paper is that there was no control group of PAP patients observed, which were treated similarly but with steroids. This should be more clearly discussed.

2. There are some anecdotal cases which already have noted more side effects with steroids in GMCSF related PAP, e.g. involving receptor GMCSF related mutations (Griese et al, BMC Pediatr. 2011), including aspergilloma or other infections, which should be mentioned in the Discussion or Introduction.

3. The numbering of the figures is not concordant between body of manuscript and figures (3B = 4, and so on).

4. Discussion page 15, para 3: As cause and effect are not clear these statements should be cautioned. Can it be excluded that steroids worked, i.e. induced improvement of PAP, then were reduced/stopped, followed by further resolution of infiltrates? This is not a prospective observation therefore causal conclusions are very difficult and must be done carefully.

5. Discussion page 15, last para: Please list the diagnoses given initially in 28 of 31 patients with PAP; what were the diseases mixed up with PAP in these tertiary care hospitals? May need more discussion to understand.

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

'I declare that I have no competing interests’