Reviewer’s report

Title: Eosinophils in anti-neutrophil cytoplasmic antibody associated vasculitis

Version: 0 Date: 02 Oct 2018

Reviewer: Adrian Schreiber

Reviewer's report:

The manuscript by Hellmark et al. "Eosinophils in anti-neutrophil cytoplasmic antibody associated vasculitis" describes eosinophils in patients with ANCA-associated vasculitis.

The authors present data, that patients with AAV i) have higher peripheral blood neutrophil and eosinophil counts, ii) demonstrate dysregulated cell surface marker expression on peripheral blood eosinophils, iii) show a reduced ROS production in peripheral blood eosinophils, and iv) stronger ANCA-induced release of extracellular traps.

The observation of disturbed eosinophil functions in patients with ANCA-vasculitis is of interest. However, the presented study has some drawbacks, which make it somewhat hard to follow the conclusion of the authors completely.

1) In figure 1 the authors discuss neutrophil and eosinophil counts, however, only percentages are presented here. I would suggest to present the actual numbers of cells here.

2) The authors present in figure 4 data on ROS production in eosinophils from patients with AAV. As ROS production is closely linked to NETs generation (in neutrophils) and the authors study EET production ANCA IgG stimulation in eosinophil ROS production would be interesting.

3) The data on EET is interesting. However, no true data is presented here, only statistics. To be able to follow the conclusion, the authors should present at least some real data (figures…) on EET in the manuscript.

4) It would be very interesting to study EET in patients with EGPA as an eosinophil-dominated disease (if possible).

Minor points:

1) On page 8 row 52 the authors discuss corticosteroid treatment dosages. However, no detailed information of the exact drug is given. It should be changed and calculated to a corticosteroid dose equivalent.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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