Reviewer’s report

Title: Eosinophils in anti-neutrophil cytoplasmic antibody associated vasculitis

Version: 2 Date: 07 Jan 2019

Reviewer: Adrian Schreiber

Reviewer's report:

The present manuscript by Hellmark et al. "Eosinophils in anti-neutrophil cytoplasmic antibody associated vasculitis" characterizes eosinophils in patients with AAV. First, the authors show that the percentage of eosinophils is decreased in both MPA and GPA patients compared to control groups. They further put in evidence that eosinophils from AAV patients have altered surface marker expression and ROS production. Last but not least, it appeared that eosinophils from AAV patients are more prone to release DNA (a process known as EEtosis) in comparison to healthy controls. The authors conclude that eosinophils might contribute to the inflammatory process associated to AAV.

We have raised several points in the manuscript which needed to be clarified to consider a publication in BMC Rheumatology. The authors have now addressed all concerns and have corrected the manuscript accordingly:

- The authors are now consistent with the percentage and the activation of eosinophils throughout the manuscript (points 1, 2, 3).
- The authors have added comments about eosinophils in EGPA patients (point 4).
- An additional figure for FACS plots and gating strategy has been added (point 5).
- Crucial information about neutrophil and eosinophil isolation are included now in the manuscript and an additional figure showing purified neutrophils and eosinophils stained with May-Grünwald Giemsa has been added (point 6).
- The authors have included NETs and EETs staining in figure 6 (point 7, 8).

Therefore, in my opinion, the revised manuscript provided by Hellmark et al. is now acceptable for publication in BMC Rheumatology.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes
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

Quality of written English
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Acceptable

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