Reviewer’s report

Title: Annexin A1 in plasma from patients with bronchial asthma: its association with lung function

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Reviewer: Joerg Mattes

Reviewer’s report:

This manuscript is potentially suitable, but more data is needed as well as major changes are required. In addition to below comments, the authors should focus on improving clarity of methodology and result section as well provide some hypotheses how their results which appear somewhat counterintuitive could be interpreted.

1) mouse model: AHR results and BALF/histology quantification should be shown. Also did the model display Th2 activation? Finally Annexing A1 should be measured in mouse plasma.

2) subjects numbers, why =50 and n=25, this needs to be justified statistically, or the numbers be changed to concur with a power calculation.

3) the abstract is not written well, the results contain a statements that are duplicated, no subject numbers are shown, the moths are not well described (eg plasma? definition of asthma and exacterbation, mouse model details, etc)

4) the conclusion and the title are not supported by the results presented, for making an argument as a potential biomarker more analysis is required, eg ROC curves etc.

5) the statistical tests used should be indicated in legends. For skewed data show median and IQR not mean and SD/SEM.

6) for fig 1 show scattered not aligned dot plot. what else is shown? median and IQR?

7) the fact that healthy and exacerbated asthmatics have same annexin levels is counterintuitive (though explainable) and the discussion does not really address this well. For instance the sentence on page 15 really does not make sense to me.

8) figure 1: are these the same asthmatics but different times (or at least some of them?), this would need to be addressed statistically (matched samples)

9) figure 2: numbers? asthmatics and controls? and exacerbated? totally unclear. correlation coefficients should be calculated for each group and use different symbole for each group [eg share, circle, triangle OR colour] (is this spearman? then write "healthy: rs=....., p=....., n=...".). there are many undetectable levels, different to figure 1 where there are not many
with "0ng/ml". is lung function pre bronchodilator? do you have % change and can correlate this?

10) figure 3: need ahr etc, see above; the method of quantification is not described sufficiently

11) figure 7: legend does not make sense, eg "compared to control subjects"; I assume this were cells from healthy cultured in different conditions? explain exactly the experiment. what does "3" really relate to? 3x western blot of the same supernatant? 3x culture of same cell? 3x cells? it would not be appropriate to just perform a densitometry of the same plot 3x, repeat experiments needed.

12) throughout English and spelling and grammar needs to improve.

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.

No

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
Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited

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None

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