Reviewer's report

Title: Inflammation and corticosteroid responsiveness in ex-, current- and never-smoking asthmatics

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Reviewer: Nikoletta Rovina

Reviewer's report:

In the work of Telenga et al. the authors aimed to show the differences in blood and sputum inflammatory profiles between ex-, current and never smokers, as well as the short- and long-term effect of ICS.

It is a well designed and presented study. The authors showed that the inflammatory profile is different between ex- and current smokers, and that long-term ICS treatment response was comparable between the three groups of the study.

This work is of interest in its field mainly because it reveals some useful information in relation to former smoking and the evolution of inflammation after smoking cessation. It shows that the amount of smoke exposure might be a significant determinant of the evolution of airway inflammation. Of interest is the information that airway inflammation after several years of smoking cessation (7 years) resembles the airway inflammation of current smoking. Furthermore, the data concerning the ICS treatment indicate that long-term ICS treatment might provide benefit in the groups of ex- and current smokers, since the authors proved a comparable response to that of never smokers.

The major strength of the study is undoubtedly the well characterization of the patients and their airway inflammation. This work confirms previous observations, but also adds useful information in the field of airway inflammation in smoking and ex-smoking asthmatics.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests