Review of: "Sputum Interleukin-32 in childhood asthma: correlation with IL-1β"

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Potential competing interests: No potential competing interests to declare.

Asthma is a chronic inflammatory disease of the airways regarded as an important health problem in children. The association between the level of IL-32 in induced sputum and asthma was reported in this study. IL-32 and IL-1β levels were measured in the supernatant of induced sputum obtained from 59 asthma patients (mild: 20 patients; moderate: 20 patients; severe: 19 patients) and control using ELISA. Sputum IL-32 mRNA expression was also estimated by RT- PCR.

Comments to the Authors

Title

In the abstract part, the authors mentioned “This study aims to characterize IL-32 in the inflammatory process in patients with severe asthma.”; In the introduction part, the authors mentioned “This prompted us to measure IL-32 levels in induced sputum supernatants from asthmatic patients and to analyze the relationship of IL-32 with asthma severity”. In the conclusion part, the authors also mentioned “The level of IL-32 in induced sputum may be associated with asthma severity”. So, title is suggested to revise, make it consist with the objective and conclusion.

Abstract

‘Objective’ is suggested to add in this structured abstract (before “This study aims to characterize IL-32 in the inflammatory process in patients with severe asthma.”)

Methodology

All participants were 59 Patients 20 Mild Asthma 20 Moderate Asthma 19 Severe Asthma and 20 control. The sample size was small, please clarify how to choose the representative sample.

“The major diagnostic criteria for asthma were as follows: medical history of episodic breathlessness, wheezing, cough, and chest tightness; spirometric features of airway obstruction with positive bronchial reversibility test and/or a positive result of methacholine challenge test.”. This sentence was about diagnostic criteria suggested to put it behind ” The diagnosis and severity of asthma were established according to the current Global Strategy for Asthma Management and Prevention (GINA) report” .

“Patients with severe (n = 19), moderate (n = 20) and mild (n = 20) asthma were scored according to GINA 2014 were included”. There was a grammatical problem with this sentence, suggested to correct it.

“a positive skin prick test (**3 mm** in diameter in the presence of positive histamine and

negative diluent controls)”. 3mm here may be ≥3mm, please confirm it.

Result

Table1 showed the distribution of mean age (year) was different between groups (p <0. 028), furthermore, the mean age was the oldest in severe asthma group. The result on the relationship between IL32 and asthma may be caused by age or other factors. It is recommended to do a multivariate analysis, such as multivariate regression analysis, to obtain the adjusted result of the relationship between IL32 and asthma.

“……with healthy non-asthmatics controls (3.26 ± 0.72 pg/ml) “ suggest to delete ‘healthy’, because the control group was not confirmed to be healthy, only asthma was excluded, not other diseases.

The expression of IL-32 in severe asthma (21.79 ± 2.56 pg/ml) is higher than the values” suggested ‘is ‘ change to ’was’.

“……no correlation was observed between IL-32 and BMI (Kg/m2) “. BMI may not be very appropriate here, the standard of BMI are different in children of different ages.

3. Discussion

“These results indicate a relationship between in the airways and disease severity.’

But figure 1 showed IL-32 levels had no statistical difference between mild and moderate groups.