

CORRESPONDENCE

Sputum periostin in patients with different severe asthma phenotypes

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We read with interest the article by Bobolea et al. (1) on the utility of sputum periostin level in phenotyping severe asthma. The conclusions of their data seem to be quite promising and inspiring. However, we hold concern about the technical aspects of their study.

In the data presented in the article, the concentrations of the sputum periostin levels fall within the range of 0.1–152 pg/ml. However, as described in the methods, the detection limit of the periostin assay is 180 pg/ml. In the same time, referring to the manufacturer's product details for the periostin assay employed by the authors (DuoSet ELISA; R&D Systems), the lower limit of working range is 375 pg/ml. Therefore, we suspect the sputum periostin level is below the limit of working range of the assay.

Additionally, periostin is reported to exist in multiple splice variants (2) and some antiperiostin antibodies may not necessarily detect all the isoforms (3). Therefore, there is a potential for confounding results due to different composition ratio of isoforms (4).

Considering such technical limitations, we have to say that the results published in the article should be interpreted with great caution.

Izuhara et al. described that the ELISA kit they developed has very low detection limit equivalent to 20 pg/ml (5). If the

authors employ such a highly sensitive assay, they could validate their result to extend their promising data into further research and clinical practice.

Author contributions

All authors contributed to the paper.

Conflicts of interest

The authors declare that they have no conflicts of interest.

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Reply

Dear Editor,

We read the correspondence of Kimura et al. (1), and we immediately realized that there was a mistake in the periostin units, or better said a misspelling, which occurred in the final version of our manuscript (1).

The concentrations of the sputum periostin levels measured in our patients' samples fall within the range of 0.1–152 ng/ml, and not pg/ml, as it appears throughout the article and

in figure 1. These values are within the usual range reported by other authors (2).

Also, the detection limit of the periostin assay employed (DuoSet ELISA; R&D Systems) is currently of 375 pg/ml, as indicated by Kimura et al., but the prospect of the manufacturer has been modified ever since we performed the assays, almost two years ago. At that time, the detection limit was in fact of 180 pg/ml (or 0.18 ng/ml), as it appears

in our article (the standard curve ranged from 0, 18 to 12 ng/ml).

So, unfortunately, we cannot validate a highly sensitive assay able to detect such low levels of periostin as the one developed by Izuhara et al. (3), but instead we have to report a misspelling of the measurement units.

Conflicts of interest

The authors declare that they have no conflicts of interest.

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