

Correspondence

Exhaled nitric oxide in prednisone-dependent asthma to identify the eosinophilic positive phenotype

To the Editor:

We read with great interest, but have some concerns regarding, the letter by Nair et al.,¹ in which the authors report a lack of correlation between sputum percent eosinophil count and fraction of exhaled nitric oxide (FENO) levels in patients with prednisone-dependent, eosinophilic asthma participating in a clinical trial of mepolizumab (anti-IL-5).²

The first issue is the inherent small number of subjects (n = 20), which detracts from the robustness of the study and the main conclusion of this letter regarding FENO. Second, it is unclear why FENO was not reported as a prespecified or *post hoc* outcome variable in the original study publication.

Third, one must question whether the subjects were truly dependent on oral prednisone. Had previous attempts been made to wean the patients from oral prednisone? Fig 1 supports the lack of true prednisone dependency by showing that FENO levels remained stable or actually decreased in most subjects weaned from prednisone regardless of treatment group, increasing in only 1 subject (FENO rose in 1 other subject who withdrew from the study before prednisone withdrawal). Fourth, while baseline characteristics were comparable (Table I), there is an obvious imbalance in baseline FENO and eosinophils between the placebo group and the active group (Figs 1 and 2, A). Therefore, the comparison between active mepolizumab and placebo on either parameter is questionable. Table I also appears to be inconsistent with the originally published data in both the

number of subjects with atopy and those with a history of smoking >10 pack-years.

Last, in contrast with the main conclusion of the authors' letter, a more adequately powered publication by Tseliou et al.³ has demonstrated that FENO can indeed be used to predict the inflammatory phenotype on the basis of eosinophils and neutrophils in patients with severe and moderate asthma, some of whom were prednisone-dependent, in agreement with previous studies.^{4,5}

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