

CORRESPONDENCE

The bronchodilation test in seasonal vs perennial allergic rhinitis

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The impact of allergic rhinitis (AR) on asthma and the abnormal lung function in children with allergic rhinitis is an important issue. In Ciprandi et al. (1) study, the authors demonstrated that FEV1 increased after bronchodilation test in comparison to basal values and to controls' levels. Over 20% of the patients had a positive reversibility ($\geq 12\%$ basal levels) test. The patients group in the study comprised 78 patients with perennial AR and 122 patients with seasonal AR (according to skin prick test results- Table 3). Positive bronchodilation test was mainly found in patients with perennial AR 48.7% (38/78) compared to only 4% (5/122) in patients with seasonal AR. Owing to this big difference, we suggest that the authors cannot relate them as one group in relation to bronchodilation test results. Indeed, in ARIA 2008, it was recommended that specifically all patients with persistent allergic rhinitis, asthma should be routinely investigated by history and, if needed, using pulmonary function tests assessing the reversibility of airflow obstruction under inhaled short-acting β_2 -agonists (2). Second, it is important to assess the relationship between the severity of the AR (mild/moderate to severe) and the bronchodilation test results. This might help us to better define a group of patients with a high risk of developing asthma, thus being a better candidate for a more aggressive therapy and close clinical follow-up.

Another important question is whether nasal treatment, as in patients with asthma can improve lung function in children with allergic rhinitis. In order to answer this question, we conducted a study that demonstrated that children with persistent AR to dust mite without underlying asthma had impaired lung function especially diminished FEF₂₅₋₇₅. After treating these patients with nasal corticosteroids for 3 months and loratidine once a day for 10 days, their lung function improved including their FEF₂₅₋₇₅, FEV1 and FEV1/FVC levels (3). Thus, decreasing the inflammation in the nose might prevent the development of inflammation of the lower airways presumably by reducing the systemic allergic reaction (4). It seems important to better define the group of patients with AR that will have abnormal lung function and eventually will develop asthma. Defining such a group in an early stage might offer us an opportunity to try and change their natural history to develop asthma maybe by allergen immunotherapy.

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