

Allergologia et immunopathologia

www.elsevier.es/ai



LETTER TO THE EDITOR

FEF_{25-75} should be carefully considered in allergic rhinitis

To the Editor,

We have read with particular interest the study of Munoz-Lopez and Rios-Alcolea. However, we would like to highlight some noteworthy issues about the clinical relevance of FEF_{25-75} in interpreting spirometry, mainly in patients with allergic rhinitis:

- impaired FEF₂₅₋₇₅ values, such as <65% of predicted, may suggest an early bronchial involvement in patients with recent onset of allergic rhinitis²;
- (2) impaired FEF₂₅₋₇₅ values may suggest the presence of severe bronchial hyperreactivity³;
- (3) impaired FEF₂₅₋₇₅ values may suggest a positive response to bronchodilation test, such as an initial bronchial airflow limitation⁴;
- (4) impaired FEF₂₅₋₇₅ values may suggest an underlying bronchial inflammation as assessed by FeNO measurement.⁵

Therefore, a simple spirometry, performed in subjects with allergic rhinitis, could provide relevant information about possible bronchi impairment. In fact, to find a FEF₂₅₋₇₅ value less than 65% of predicted should alarm the clinician to think that the patient with allergic rhinitis should be better evaluated. However, even though it is to note that FEF₂₅₋₇₅ is not recommended by the ERS/ATS guidelines on interpretation of spirometry for the diagnosis of asthma, FEF₂₅₋₇₅ is a spirometric parameter that should be considered. Obviously, this consideration implies that patients with allergic rhinitis have to perform lung function measurement by spirometry. Unfortunately, the current economic trend and the poor availability of specialist facilities make this possibility very difficult. Therefore, a simple and very cheap way to identify subjects with allergic rhinitis to be candidates to perform lung examination could be offered by the evaluation of breathlessness perception assessed by the visual analogue scale (VAS). In fact, evidence has been provided that a VAS value <3 about dyspnoea perception could easily detect patients to undergo spirometry.6 In addition, poor or absence of response to medical treatment could give advice for the need to perform spirometry. Thus, history of bronchial symptoms, mainly cough, perception of dyspnoea, and lung function may advisably give relevant information about the nose-bronchi link.

In conclusion, we would like to underline the relevance of adequately considering the FEF $_{25-75}$ parameter in the management of allergic patients, as impaired values (such as <65% of predicted) may suggest a bronchial involvement in allergic rhinitis.

References

- Munoz-Lopez F, Rios-Alcolea M. The interest of FEF₂₅₋₇₅ in evaluating bronchial hyperresponsiveness with the methacholine test. Allergol Immunopathol. 2012;40:352-6.
- Ciprandi G, Cirillo I, Klersy C. Lower airways are affected also in asymptomatic patients with recent onset of allergic rhinitis. Laryngoscope. 2010;120:1288-91.
- Ciprandi G, Tosca MA, Signori A, Cirillo I. Bronchial hyperreactivity in patients with allergic rhinitis: FEF₂₅₋₇₅ might be a predictive factor. Allergy Asthma Proc. 2011;32:4–8.
- 4. Simon MR, Chinchilli VM, Phillips BR, Sorkness CA, Lemanske RF, Szefler SJ, et al. Forced expiratory flow between 25% and 75% of vital capacity and FEV₁/forced vital capacity ratio in relation to clinical and physiological parameters in asthmatic children with normal FEV₁ values. J Allergy Clin Immunol. 2010;126:527–34.
- Ciprandi G, Tosca MA, Castellazzi AM, Cairello F, Salpietro C, Arrigo T, et al. FEF₂₅₋₇₅ might be a predictive factor for bronchial inflammation and bronchial hyperreactivity in adolescents with allergic rhinitis. Int J Immunopathol Pharmacol. 2011;24: 17-20.
- Ciprandi G, Quaglini S, Giunta V, Cirillo I. VAS assessment of bronchodilation test might select rhinitis patients for a screening spirometry. Inv J Allergy Clin Immunol. 2010;20:419–24.
- G. Ciprandi a,*, I. Cirillo b
- ^a Allergy and Respiratory Diseases Clinic, IRCCS-Azienda
 Ospedaliera Universitaria San Martino, Genoa, Italy
 ^b Navy Medical Service, La Spezia, Italy
- * Corresponding author.

E-mail addresses: gio.cip@libero.it, giocip@unige.it (G. Ciprandi).