



FEV₁ and MRI ventilation defect reversibility in asthma and COPD

Hana Serajeddini^{1,2,4}, Rachel L. Eddy^{1,3,4}, Christopher Liciskai², David G. McCormack² and Grace Parraga^{1,2,3}

Affiliations: ¹Robarts Research Institute, Western University, London, ON, Canada. ²Division of Respiriology, Dept of Medicine, Western University, London, ON, Canada. ³Dept of Medical Biophysics, Western University, London, ON, Canada. ⁴Contributed equally as first authors.

Correspondence: Grace Parraga, Robarts Research Institute, 1151 Richmond St N, London, Canada, N6A 5B7. E-mail: gparraga@robarts.ca

 @ERSpublications

MRI ventilation defect post-bronchodilator reversibility was not always concordant with FEV₁ reversibility in asthma and COPD. MRI VDP may provide enhanced sensitivity to small airway response to inhaled medication. <http://bit.ly/2qKnwID>

Cite this article as: Serajeddini H, Eddy RL, Liciskai C, *et al.* FEV₁ and MRI ventilation defect reversibility in asthma and COPD. *Eur Respir J* 2020; 55: 1901947 [<https://doi.org/10.1183/13993003.01947-2019>].

This single-page version can be shared freely online.

To the Editor:

The underlying pathophysiological determinants of asthma and COPD are related in complex ways. Importantly however, post-bronchodilator forced expiratory volume in 1 s (FEV₁) reversibility may occur in approximately 50% of COPD patients [1], whilst epidemiological [2] and magnetic resonance imaging (MRI) studies [3] suggest that, in asthma patients, FEV₁ reversibility may diminish over time. As compared to patients with asthma or COPD alone, patients with co-existing asthma and COPD report worse clinical outcomes [4] and increased healthcare costs [5] and burden [4, 5].