Re: Phenotyping of chronic obstructive pulmonary disease: heterogeneity and its clinical relevance

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We read the above article (published in *Curr Respir Care Rep* 2012 1:189–198) with great interest, and would like to make the following comments.

The review very correctly refers to the great potential of targeting therapy to specific COPD phenotypes, and indeed cites several valuable examples of targeted therapy. However, there is no mention of the two most important of these phenotypes, namely irreversible asthma and eosinophilic COPD. Approximately 35 % of COPD patients suffer from irreversible asthma, as evidenced by bronchial histology, normal carbon monoxide diffusion capacity, absence of emphysema on CT scan, strong association with allergic rhinitis, and responsiveness to prednisolone or inhaled corticosteroids (ICS) [1–3]. Eosinophilic COPD, defined by sputum eosinophilia of more than 3 %, is reported for 20–40 % of COPD patients. Apart from these two phenotypes, cases of COPD are not steroid-responsive [4–7]. Identifying these two groups would result in more effective and less expensive therapy.

The review defined the “overlap syndrome” (of asthma and COPD) as the presence of increased variability of air-flow in a COPD patient. There is no agreement on a definition of the “syndrome” because workers have used a variety of other criteria to diagnose it, including the patient reporting having received an asthma diagnosis (with or without age limitation) [8], or the presence of “asthmatic symptoms” including cough, episodic chest tightness or wheezing in a patient with COPD [9, 10]. Sputum eosinophilia or atopy have also been used as criteria for diagnosis [11, 12]. In therapeutic trials the response of the “overlap

syndrome” to ICS was not uniform, but was related to the presence of sputum eosinophilia [9]. This further demonstrates the heterogeneity of the “overlap syndrome” and the difficulty of accepting its existence as a distinct, definable entity or phenotype. The condition has been called a “nonsyndrome” because of its arbitrary definitions on which there is no agreement, its inability to be defined by objective criteria, for example histology or CT scan, and its lack of uniform response to ICS [13]. More seriously, accepting the existence of an overlap syndrome could adversely affect phenotyping and its objective of separating the different strands of COPD.

Conflict of Interest Feisal A. Al-Kassimi declares that he has no conflict of interest.

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