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# COPD: an autoimmune disease?

To the Editors:

HEMMINKI *et al.* [1] report an increased prevalence of chronic obstructive pulmonary disease (COPD) in patients with autoimmune disease and suggest the presence of autoimmunity as a risk factor for the development of COPD. We have previously reported an increased prevalence of autoimmune disease in patients with COPD who have never smoked [2]. These patients tended to be elderly females and many had a blood lymphopenia, positive autoantibodies and airway inflammation. We have also reported a four-fold increase in the prevalence of COPD in patients with autoimmune bowel disease [3, 4]. The association with autoimmune disease is not limited to COPD; patients with unexplained chronic cough (UCC) are eight times more likely to have autoimmune disease compared to matched controls [5]. Patients with UCC are largely middle-aged females and have evidence of lymphocytic airway inflammation [6]. The mechanism for the association of cough with airway lymphocytosis may be homing of inflammation from the primary site of autoimmune disease to the airways [7]. A recent study has reported that patients with UCC have an increased decline in lung function, which raises the possibility that some patients with UCC may develop COPD [8].

It is likely that the presence of factors other than smoking is necessary for the development of COPD since most smokers do not develop COPD [9]. Examples of co-factors include autoimmunity and chronic airway infection. Further studies should investigate whether therapy targeting co-factors could prevent or treat COPD.

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