

**The Return of GOLD 0?\*****¿Ha vuelto GOLD 0?**

To the Editor,

Most experts agree that a post-bronchodilator forced expiratory volume in 1 s (FEV<sub>1</sub>)/forced vital capacity (FVC) ratio of less than 0.70 in a patient with prolonged exposure to tobacco smoke is diagnostic of chronic obstructive pulmonary disease (COPD).<sup>1</sup> However, in the very early stages of the disease, spirometry may not be sufficiently sensitive, particularly in younger individuals.<sup>2</sup> Some smokers who develop the typical symptoms of COPD (dyspnea, cough or expectoration) but do not meet spirometry criteria and have no airflow limitation cannot be labeled as COPD sufferers as such. The SPIROMICS study<sup>3</sup> found that up to 50% of smokers without airflow obstruction reported characteristic COPD symptoms (measured by the COPD Assessment Test [CAT]), compared with 16% of never-smokers. Smokers with a CAT score greater than 10 had poorer quality of life, achieved a shorter distance on the 6-min walking test, and had a higher rate of exacerbations than never-smokers. In another study, Regan et al.<sup>4</sup> describe similar results in smokers with no chronic airflow limitation, and define these individuals as GOLD 0. Of this group, 54% reported  $\geq 1$  respiratory symptom and at least 23.5% had an mMRC dyspnea scale score of  $\geq 2$ , much higher than that of never-smokers (3.7%). Their quality of life according to the SGRQ scale was also poorer, and they had more exacerbations. Both studies found these subjects to have increased bronchial wall thickening on computed tomography, with a low grade of associated emphysema. These data need to be taken seriously: Harvey et al.<sup>5</sup> reported that 22% of smokers with no evidence of bronchial obstruction and low DLCO ( $\leq 80\%$  predicted) progressed to GOLD I, compared to 3% of smokers with normal DLCO values.

In view of these findings, it seems reasonable to believe that many current or former smokers who do not meet spirometric criteria for COPD have significant respiratory disease that conventional diagnostic methods do not detect. This raises the question whether symptomatic smokers with no chronic airflow limitation would be candidates for treatment beyond simply stopping

smoking. In both studies, between 42% and 54% of symptomatic smokers were receiving treatment with bronchodilators, underlining the importance of controlling symptoms irrespective of the degree of obstruction.<sup>3,4</sup> Woodruff et al.<sup>3</sup> also found that this group showed a significant improvement in FVC (determined by an increase of at least 200 ml and 12%) after the administration of salbutamol, compared to asymptomatic subjects, although they do not report whether symptoms improved after starting treatment.

Until clinical trials are conducted to justify the use of bronchodilators in symptomatic smokers without chronic airflow obstruction, smoking cessation continues to be the only effective measure that has been proven to halt progress of the disease. Another approach may be to evaluate the use of bronchodilators in subjects who present respiratory symptoms despite stopping smoking, with necessary confirmation of clinical and spirometric response in the subsequent months.

**References**

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