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Comparison of oxidant/antioxidant balance in COPD and non-COPD smokers



We read with great interest the article recently published by Aydemir et al. entitled "Comparison of oxidant/antioxidant balance in COPD and non-COPD smokers".¹

In this study, an increase in levels of total oxidant status (TOS) has been observed in current smokers with chronic obstructive pulmonary disease (COPD) when compared to the former smokers with COPD ($p < 0.001$). Similarly, a significant increase in TOS levels has been found in currently smoking healthy individuals when compared to the non-smoker individuals. TOS has been found to be associated with especially smoking status rather than COPD. Of the 137 patients with COPD, 98 were receiving corticosteroid treatment for more than a year and all patients were treated with inhaled bronchodilators (inhaled beta 2 agonists and/or anticholinergics).

Current studies have shown the efficacy of combined treatment with inhaled corticosteroids or beta 2 agonists in inflammatory airway diseases by reducing the smoke-related oxidative stress that is particularly caused by smoking.²

We believe that there could be a relationship between TOS levels and inhaled treatment in patients with COPD. In addition, mean FEV₁ predicted value has been found as 48.28% in former smokers with COPD and as 49.37% in current smokers. It is clear that the patients have severe COPD. In this group of patients, respiratory physiotherapy and exercise play important roles in treatment. Current studies have shown that this type of treatment may help by reducing the oxidative stress.³ In this study, we did not see any information about whether the patients had any respiratory physiotherapy and/or did exercise.

References

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