Adiponectin modulation in different COPD endotypes: a preliminary clinical study

Pierard M.¹, Tassin A.¹, Legrand A.B.¹, Legrand A.¹

¹Lab. Respiratory Physiology and Rehabilitation, Health Institute, University of Mons (UMONS), Belgium

Introduction

COPD (Chronic Obstructive Pulmonary Disease) was shown to modulate Adiponectin plasmatic level (Adₚ), but inconsistencies exist among studies. Different factors, such as BMI and hypoxaemia, are susceptible to modulate Ad pathway. These contrasting results among studies could be explained by the heterogeneity of the disease. We therefore investigated Adₚ modulation in different endotypes of COPD patients. Potential correlations between Adₚ and gender, hypoxaemia, metabolic parameters and pulmonary function were studied.

Method

This preliminary analytical cross-sectional study was carried out on 58 COPD patients. Subjects underwent spirometry and body plethysmography in accordance with ATS/ERS guidelines. Single breath diffusing capacity for carbon monoxide (DL sideline) was also evaluated and arterial blood was collected. The following blood markers were evaluated: PaO₂, PaCO₂, adiponectin and leptin plasmatic levels as well as adiponectin/leptin ratio.

Adₚ level in COPD patients is higher in women compared with men

Different correlation between Adₚ and clinical characteristics in women and men

Conclusion

Adₚ was negatively correlated with lung function in men and negatively correlated with obesity and hypercapnia in women, reflecting gender specificities.

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