Vascular Adhesion Protein-1 serum level in Chronic Obstructive Pulmonary Disease patients in comparison with control group.

Abstract

**Background and objective**: Chronic obstructive pulmonary disease is the fourth leading cause of death in the United States of America as known. Chronic obstructive pulmonary disease due to chronic air It is observed that the transfer of circulating leukocytes by various molecules on the surface of T cells directed by the VAP-1 among them. Way inflammation, tissue damage and irreversible airway obstruction known. The aim of this study was to investigate VAP-1 in patients with COPD, and its relationship with lung function parameters (spirometry) and quality of life of these patients.

**Materials and methods**: Cross-sectional study on patients with COPD referred to the pulmonary clinic was performed. In this study, patients were selected using simple random sampling after diagnosis for all cases, controls were selected. The following list contains all questionnaire patients' demographic characteristics, history of smoking, history of bread and spirometry results were completed. After obtaining consent from all individuals participating in the study, blood samples and serum VAP-1 was measured. Finally, all data compiled statistical analysis program SPSS (ver. 16) and to analyze the results discussed.

**Results**: In this study mean age of patients 63.79 year and all patients were male. The average BMI of the patients was 25.85 kg per square meter. 37.2 percent of patients in this study shortness of breath (MMRC) on average, 48.8 of quality of life (CAT) at points 30-21 and 41.8 percent dyspnea severity (GOLD) were severe. Average VAP-1 in the treatment group and the control group 845.16 and 512.11 pg / ml respectively (P <0.001). Between serum VAP-1 with the severity of dyspnea (P = 0.013), MMRC (P = 0.028), quality of life (P = 0.028) was observed statistically significant association was observed that the relationship between smoking and BMI.

**Conclusion**: The results showed that serum levels of markers of VAP-1 in patients with COPD than in healthy individuals and the marker with disease severity according to GOLD AND NEW GOLD, severity of dyspnea and quality of life based on CAT Score related MMRC.

**Keywords**: marker VAP-1, disease, COPD, quality of life, severity of illness