

TNF- α INTERRELATIONS WITH EXTERNAL RESPIRATORY FUNCTION OBSTRUCTIVE CHANGES IN HYPERTENSIVE PATIENTS WITH OBESITY

*Abdyresulova Mahri, Sytnyk K.
Kharkiv National Medical University
Department of internal medicine #1*

Objective: Recent evidence suggests close obesity and arterial hypertension association. Both pathological states are characterized by low-grade inflammation which result in adipokines dysfunction: increased activity of proinflammatory cytokines and decreased activity of anti-inflammatory cytokines. The aim of our research was study relationships between serum TNF- α concentrations and external breathing function disorders in hypertensive patients with obesity.

Design and Methods: 55 Patients with arterial hypertension (AH) were examined. Serum TNF- α levels by ELISA were detected. All patients underwent anthropometry, office BP measurement, and spirometry. Patients were divided into 3 group depend on body mass and FEV1 means: 1 gr. – hypertensives with normal body mass; 2nd gr. – obesity-related hypertensives without bronchial obstruction (FEV1 >80%); 3rd gr. – obesity-related hypertensives with bronchial obstruction (FEV1 <80%).

Results: Serum TNF- α (1st gr. – 3.32 ± 1.3 pg/ml, 2nd gr. 6.37 ± 0.6 pg/ml, 3rd gr. – 13.78 ± 4.1 pg/ml; $p < 0.05$ in all cases) levels increasing were found in relation to obesity and bronchial obstruction development.

Conclusion: Obtained data demonstrate TNF- α levels elevation with maximum changes in obesity-associated arterial hypertension with obstructive disorders of external breathing function. Our results suggest possibility of TNF- α involving to obstructive type of ventilation disorders development in the patients with AH and obesity.