

**IL-10 SERUM ACTIVITY IN PATIENTS WITH OBESITY-
ASSOCIATED ARTERIAL HYPERTENSION DEPEND ON BRONCHIAL
OBSTRUCTION PRESENCE**

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Objective: Recent evidence suggests close obesity and arterial hypertension association. Both pathological states are characterized by low-grade inflammation which result in adipokines dysfunction and decreased activity of anti-inflammatory cytokines.

The **aim** of our research was study relationships between serum IL-10 concentrations and external breathing function disorders in hypertensive patients with obesity.

Design and Methods: 55 Patients with arterial hypertension (AH) were examined. Serum IL-10 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: IL-10 serum levels decreased depend on obesity progression to attain minimum means in AH patients with obesity and bronchial obstruction syndrome (1st gr. – 9.25 ± 1.8 pg/ml, 2nd gr. – 6.57 ± 0.5 pg/ml, 3rd gr. – 4.05 ± 0.9 pg/ml; $p < 0.05$ in all cases).

Conclusion: Obtained data demonstrate IL-10 levels reduction with maximum changes in obesity-associated arterial hypertension with obstructive disorders of external breathing function. Our results suggest possibility of IL-10 involving to obstructive type of ventilation disorders development in the patients with AH and obesity.