

**[PA2563] TNF- $\alpha$ , IL-6, IL-10 serum activity in patients with obesity-associated arterial hypertension depend on bronchial obstruction presence**

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**Objective:** Recent evidence suggests that obesity are characterized by low-grade inflammation. Increased activity of proinflammatory cytokines can be involving to obstructive type of ventilation disorders development.

**The aim** of our research was study relationships between serum TNF- $\alpha$ , IL-6, 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 TNF- $\alpha$ , IL-10, IL-6 levels by ELISA were detected. All patients underwent anthropometry 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; 3rd gr. – obesity-related hypertensives with bronchial obstruction.

**Results:** Serum TNF- $\alpha$  (1st gr. –  $3.32 \pm 1.3$  pg/ml, 2nd gr.  $6.37 \pm 0.6$  pg/ml, 3rd gr. –  $13.78 \pm 4.1$  pg/ml;  $p < 0.05$  in all cases); IL-6 (1 st gr. –  $10.27 \pm 3.2$  pg/ml, 2nd gr. –  $18.29 \pm 1.4$  pg/ml, 3 rd gr. –  $25.42 \pm 2.9$  pg/ml;  $p < 0.05$  in all cases) levels increasing were found in relation to obesity and bronchial obstruction development. IL-10 serum levels decreased and attain minimum means in 3rd gr patients (1st gr. –  $9.25 \pm 1.8$  pg/ml, 2nd gr. –  $6.57 \pm 0.5$  pg/ml, 3rd gr. –  $4.05 \pm 0.9$  pg/ml;  $p < 0.05$  in all cases).

**Conclusion:** Obtained data demonstrate TNF- $\alpha$ , IL-6 levels elevation and IL-10 levels reduction with maximum changes in 3rd gr patients. Our results suggest possibility of TNF- $\alpha$ , IL-6 and IL-10 involving to obstructive type of ventilation disorders development in the patients with AH and obesity.

**Date/Time:** Monday, September 28, 2015 - 12:50 pm

**Room:** Hall 14-23