

ROLE OF LEPTIN AND RESISTIN IN THE ASSOCIATION BETWEEN THE OBESITY AND ASTHMA

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Background: Recent studies indicate obesity as one of the risk factors for asthma. Excess of the body mass increase the risk of development of asthmatic symptoms, severity and lowers the treatment efficacy. One of the hypotheses explaining the link between the two diseases concerns the adipokines, hormones produced by the adipose tissue with the proinflammatory character. **Objective:** The objective of this study was to compare the levels of the adipokines (leptin and resistin) between the asthmatic overweight patients, asthmatic patients with normal weight and overweight patients without asthma. **Methods:** 80 blood samples were collected and blood serum extracted from patients. Three groups were created: overweight asthmatic patients (BMI ≥ 25), overweight patients without asthma and asthmatic patients with normal weight (BMI < 25). Additionally waist circumference of the patients has been measured and prick skin test performed. Unhealthy waist circumference was considered above 80cm for women and above 94cm for men. Comparison of the adipokines' concentration between the 3 groups has been made and association between above and the measurements was performed. **Results:** Although the concentrations of both adipokines were slightly higher for overweight asthmatics patients comparing to overweight healthy patients the differences were not significant. Significant association was found between the leptin concentration and both BMI ($p < 0,01$) and waist circumference ($p < 0,01$). **Conclusions:** As expected leptin levels were increased within the group of obese patients with BMI > 25 and elevated waist circumference. Increased concentrations of both studied adipokines were observed but the difference was not significant. Further studies should be designed to examine the role of adipokines in the asthmatic inflammation.