

INFLUENCE OF QUERCETIN ON ASTHMA COURSE IN OBESE PATIENTS

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Study objectives: To determine asthma-control in obese patients treated by inhaled steroids in combination with quercetin.

Methods: 108 asthma patients with obesity were studied after 3 month period of treatment. The I group included 54 obese patients who had used a long-acting β_2 -agonist and inhaled steroid in dose appropriate to asthma severity, the II group – 54 patients who had used quercetin in addition to β_2 -agonist and inhaled steroid. Obesity was diagnosed according to WHO criteria (1999). Diagnosis of asthma and its severity was defined as provided by GINA (2006). Flow-volume spirometry was performed. Statistical processing of results was carried out using licensed Microsoft Office 2000.

Results: In 3 months of treatment with long-acting β_2 -agonists and inhaled steroids asthma in the patients of the I group was associated with more symptoms (wheeze, attacks) and using of short-acting β_2 -agonists, exacerbations per year ($p < 0.05$), marked obstructive disturbances in pulmonary function. Addition of quercetin to the standard treatment induced a significant increase in FEV1 ($p < 0.05$) that was related to asthma-control in (24,13 \pm 5,87) % of patients in group II in comparing of (9,3 \pm 3,9) % of patients in group I.

Conclusion: The results suggest that standard treatment in obese asthma patients lead to asthma-control in insignificant quantity of patients. Complex treatment with quercetin makes it possible to achieve asthma-control and maintain it in the majority of patients.