

[95] BODE index and CAT-test in the evaluation of pulmonary rehabilitation in chronic obstructive pulmonary disease patients with obesity

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Pulmonary rehabilitation (PR) is considered to be one of the main methods of treatment and many studies have demonstrated its effectiveness in reducing dyspnea, increasing exercise capacity and improving quality of life. In order to evaluate the effectiveness of PR, integral indices, in particular the BODE index, are suggested to be used.

Objective:

To determine the effectiveness of PR in COPD patients with obesity using the BODE index and the CAT-test.

Material and methods:

Pulmonary rehabilitation involved 48 patients with COPD and obesity. The BODE index (body mass index, forced expiratory volume in one second, dyspnoea and 6-min walk distance) and the CAT-test were evaluated before and after 6-month PR program. In addition to the PR, patients with COPD and obesity were prescribed a diet and physical aerobic exercise to reduce body weight.

Results:

The initial level of the BODE index and the CAT test in COPD patients with obesity was 4.96 ± 0.56 and 18.72 ± 1.71 , respectively. After 6 months of PR the BODE decreased reliably by 22.4%. The CAT test in COPD patients with obesity also decreased reliably by 32.4%. In the structure of the BODE index, dyspnea and exercise capacity had the best dynamics (the number of points on the mMRC scale decreased by 23.3% and an increase in the distance traveled by patients in a 6-minute walk test from 232.04 ± 19.19 to $261, 84 \pm 21.37$). The body mass index decreased by 10.4%. FEV1 after the PR decreased slightly (by 9.4%).

Conclusions.

This study shows that COPD patients with obesity need a complex of physical exercises and a diet that contribute to lowering the body mass index and dyspnea, improving exercise capacity and COPD symptoms to be added to the PR.