COMORBIDITIES AS AN ELEMENT OF MULTIDIMENSIONAL PROGNOSTIC ASSESSMENT OF PATIENTS WITH COPD

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Introduction: Chronic obstructive pulmonary disease (COPD) is characterized by chronic airflow limitation and a range of pathological changes in the lung and some significant extra-pulmonary effects, and important comorbidities which may contribute to the severity of the disease. BODE index, a 10-point scale which integrates body mass index, degree of airflow obstruction and dyspnea, and exercise capacity, has been proposed to better identify severity of the disease and to predict subsequent survival of the individuals affected by COPD. The higher scores in BODE index indicate a higher risk of death. Up to date there is limited information concerning comorbidities as prognostic factor as well as estimating correlation between comorbidities and BODE index. AIM : The goal of the study was to evaluate prevalence of concomitant diseases in patients with COPD as well as to assess correlation between comorbidities and BODE index, to determine conclusively which coexisting diseases have the highest negative influence on COPD course and subjects general condition. **Material and methods:** In 2007, we enrolled into the cross-sectional study 80 patients with COPD. They were at least 40 years old and had to have more than 10 years history of smoking. 50% of subjects smoked between 20-60 pack-years. 15 patients (18,8%) did not quit smoking (13 male and 2 female). To determine the presence of comorbid diseases, all participants were asked questions according to prepared questionnaire. Every subject underwent lung function test (spirometry), 6- minutes walking test and ECG at rest. The study group consisted of 55 male (69%) and 25 female (31%). The mean age was 63 ±8.3 years. The study is still ongoing. **Results:** The most frequent comorbidities in patients with COPD were: systemic hypertension (52.5%), oedema of lower limbs (43.8%), movement disorders (38.8%), varices of lower limbs (38.8%), sleeping disorders (32.5%), angina pectoris (26.2%), vertigo (26.2%). Subjects with higher scores in BODE index had significantly greater prevalence of arrhythmias ($p<0.05$), episodes of pneumonia, mainly male and group of patients of 60-65 years old regardless of gender ($p<0.05$). Evident correlation was also observed between low FEV1 and number of episodes of pneumonia ($p<0.05$). Additionally, there was found that patients with higher BODE scores had greater risk of COPD exacerbation and they had increased probability of hospitalizations because of pulmonary problems. **Conclusions:** Results of the study indicate close connection between BODE scores and some comorbidities (especially arrhythmias) and other pulmonary disorders what can suggest that these conditions may aggravate COPD course as well as increase risk of mortality. Therefore, there is a great need to take into special account these conditions in the course of assessing and treating COPD patients. Moreover, number of hospitalizations and COPD exacerbations can be well predicted based on BODE index what can help in choosing better therapy regimen.