

THE RELATIONSHIP BETWEEN THE ACTIVITY OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE AND PATIENT-ORIENTED INDICATORS OF QUALITY OF LIFE

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Abstract

Chronic obstructive pulmonary disease (COPD) is a progressive disease characterized by chronic respiratory symptoms, periodic exacerbations, and significant changes in the quality of life. In the latest revision of the GOLD recommendations, a new concept of disease activity was introduced, which reflects the current intensity of the pathological process and the risk of progression. One of the main criteria for assessing COPD activity is the frequency and severity of exacerbations, since repeated exacerbations are associated with an accelerated decline in lung function and a worsening prognosis. However, objective assessment methods (spirometry, exacerbation frequency, hospitalizations due to COPD exacerbations) do not always fully reflect the patient's subjective perception of the disease, especially regarding symptoms such as cough, sputum, shortness of breath, and functional limitations.

The aim of our study was to assess the feasibility of using standardized questionnaires, CCQ and CASA-Q, as tools for assessing COPD activity and identifying predictors of its progression.

Methods: to achieve the goal, 50 patients with a diagnosis of COPD of varying severity were examined; general clinical research methods were used (patient examination, collection of complaints and anamnesis), spirometric study with a test of 400 µg of salbutamol; questionnaires using standardized questionnaires CCQ and CASA-Q. The control group consisted of 40 healthy individuals, comparable to the main group by gender and age. Statistical processing of the research materials was carried out using Microsoft® Excel® for Microsoft 365 MSO, version 2603 build 16.0.19822.20086 (64-bit version) (license number CWW_b75add49-8ff8-440b-8f93-04f93ca92a3c_efb854fe-fc9a-4db0-942a-d7f013fc9680_7c13ae7d3899e69505). Average values and variation indices were calculated, and Student's t-test was used to compare two samples. The correlation analysis method was also used.

Results. It was shown that COPD classification systems based on the severity of bronchial obstruction and ABE groups did not show significant relationships with quality-of-life indicators, indicating their limited ability to reflect the subjective state of COPD patients. The CCQ questionnaire can be considered as a potential predictor of the course of the disease, including the risk of further exacerbations and survival, since it demonstrated a relationship with the activity of the COPD course, while the CASA-Q questionnaire is a sensitive tool for assessing symptoms of cough and sputum, and its prognostic value requires further confirmation. A threshold effect of exacerbation frequency on the quality of life of patients with COPD was established: significant deterioration in indicators was observed with ≥ 3 exacerbations per year, whereas with fewer exacerbations, no significant differences in quality of life were found. Frequent exacerbations (≥ 3 per year) were associated with a decrease in functional status, tolerance to physical exercises, and a deterioration in the psycho-emotional status of patients. The CCQ and CASA-Q questionnaires are generally effective tools for assessing subjective symptoms and quality of life in patients with COPD, complementing traditional clinical and functional research methods.

Keywords: chronic obstructive pulmonary disease, quality of life, disease activity.

Ukr. Pulmonol. J. 2026;34(2):5–9.

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