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THE ROLE OF PSYCHOLOGICAL CHARACTERISTICS IN PATIENTS WITH BRONCHIAL ASTHMA

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Abstract

Among internal diseases, bronchial asthma is one of the most important problems of theoretical and practical medicine. Epidemiological studies demonstrate a steady increase in the prevalence of bronchial asthma worldwide, which determines its high medical and social significance for society. The most challenging issues remain the prediction of the course and outcomes of bronchial asthma accompanied by mental disorders. Numerous studies indicate disturbances in the emotional sphere. Assessment of the psychological status of patients with bronchial asthma plays an important role in a comprehensive approach to the treatment of this disease. Given the chronic nature of asthma and possible complications, it is essential to regularly monitor the psychological condition of patients. In medical practice, bronchial asthma is associated with various psychosomatic interactions, including the presence of psychogenic triggers of bronchoconstriction attacks, unfavorable and aggravating mental

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disorders (anxiety, depression, asthenia), psycho-emotional reactions to the fact and nature of somatic disease (nosogenic reactions), as well as somatogenic disorders (symptomatic psychoses, complications of hormonal therapy).

Keywords: Bronchial asthma (BA), psychological status, emotional sphere.

Introduction

Disease prevention at the level of primary health care institutions, early identification of risk factors, and the development of preventive measures contribute to a reduction in morbidity, disability, and mortality from bronchial asthma [11,12,45,61]. As a serious chronic disease affecting people of all ages and nationalities, bronchial asthma continues to be a relevant subject of study for clinical psychologists and physicians of various specialties. Bronchial asthma represents a significant public health problem in many countries worldwide [21,24,38,56]. Among respiratory diseases, bronchial asthma ranks second in prevalence after chronic obstructive pulmonary disease. In developed countries, approximately 5–12% of the population suffers from bronchial asthma [22,23,29,38,44].

According to data obtained from 48 countries, the average incidence rate of bronchial asthma is 7.9 per 100,000 population, with a steady upward trend [14,25], which determines the high medical and social significance of this disease. Globally, approximately 180,000 people die annually from bronchial asthma and its complications [4,41,54,64]. China and Russia lead in mortality rates, with 36.7 and 28.6 per 100,000 population, respectively. Significant expenditures on the diagnosis and treatment of patients with bronchial asthma have a substantial impact on the economies of many countries [3,18,55,60].

It can be assumed that the increase in asthma prevalence in recent years is associated with improved diagnostic quality, while the reduction in severe and life-threatening exacerbations is due to improvements in treatment quality. The

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implementation of the international GINA (Global Initiative for Asthma) program in national healthcare practice, based on evidence-based medicine principles, has contributed to the development of unified approaches to the diagnosis and treatment of this pathology [2,33,47,61]. However, analyses of diagnostic and therapeutic processes in patients with bronchial asthma reveal numerous deficiencies in diagnosis, management, and treatment at various stages of medical care [5,49,51]. At the same time, the clinical presentation of the disease is changing, which necessitates further study of its pathogenesis and the search for effective preventive and therapeutic methods [19,24,29].

At the present stage, the understanding of bronchial asthma pathogenesis is based on the inflammatory theory, which assumes a persistent inflammatory process regardless of disease severity.

A specific phenotypic feature of bronchial asthma is airway hyperresponsiveness. A particular manifestation of this readiness for bronchospasm in response to irritating factors is cold-induced airway hyperresponsiveness. Despite the fact that cold exposure acts as a “primary allergen” for some patients and negatively affects them in northern regions for more than half the year, this phenomenon remains insufficiently studied [16,20,39,47,62].

Traditionally, bronchial asthma is considered a psychosomatic disease, belonging to a group of conditions arising from the interaction of somatic and psychological pathogenic factors. In modern understanding, psychosomatic disorders include not only classic psychosomatic diseases (“the holy seven”) but also a wide range of psychosomatic interactions. In bronchial asthma, these interactions manifest as psychogenic triggers of bronchoconstriction attacks, mental disorders that worsen the course of the disease (anxiety, depression, asthenia), psycho-emotional reactions to the illness (nosogenic reactions), and somatogenic disorders (symptomatic psychoses, complications of hormonal therapy).

Bronchial asthma, like any severe chronic disease, affects all aspects of patients’ lives. It leads to numerous social and family problems, reduced work capacity,

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diminished quality of life, and overall subjective well-being [13,48,31,57]. As clinical and experimental data accumulated, it became necessary to identify psychological factors and behavioral characteristics influencing the onset, progression, and course of bronchial asthma [6,44]. In particular, psycho-emotional stress often triggers exacerbations of various forms of bronchial asthma [15,56,67].

Numerous international studies have identified systematic associations between lung function and daily mood fluctuations in patients with bronchial asthma [8]. Neuropsychological manifestations accompanying asthma may be caused by changes predominantly localized in the autonomic or central nervous system [17]. Among the psychological characteristics of patients with bronchial asthma, many authors emphasize reactive anxiety [11]. Other researchers suggest that changes in the level of reactive anxiety can be used to assess disease progression and predict the frequency of exacerbations [24,25]. Anxiety as a syndrome includes emotional, behavioral, and physiological components [21]. Anxiety, arising as a subjective reflection of disturbed psychovegetative balance, serves as a core mechanism of mental stress and underlies many psychopathological manifestations [23]. It has been observed that patients with asthma-like respiratory disorders are more anxious and hypochondriacal than patients with bronchial asthma [16]. Nevertheless, anxiety syndrome itself is quite common in bronchial asthma, occurring in up to 46.7% of patients [22].

Panic attacks often manifest during exacerbations of bronchial asthma and in patients with hyperventilation syndrome. Panic attacks may occur as part of asthma attacks (accompanied by a decrease in peak expiratory flow rate by more than 15% according to peak flowmetry) or during interictal periods (without a decrease in peak expiratory flow). Somatic symptoms are dominated by pronounced dyspnea with difficult expiration (expiratory dyspnea), paroxysmal cough (cough variant of an asthma attack [25]), chest tightness, and tension of the abdominal and shoulder girdle muscles [23]. Among asthma patients, defense

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mechanisms, alexithymia, and characterological and personality traits play an important role in disease dynamics. In addition, during therapy, difficulties often arise in interactions between patients and healthcare professionals, especially in cases of low (negative) treatment adherence. Panic disorders are significantly more prevalent among asthma patients compared to the general population [4]. In up to 71% of cases, panic is accompanied by fear of death due to acute airway obstruction. Panic attacks significantly affect the course and severity of bronchial asthma [18]. Psychological factors such as emotional state, anxiety, and coping mechanisms play an important role in patient cooperation with treatment. Positive adherence is a necessary condition for improving treatment effectiveness, achieving and maintaining asthma control, and enhancing patients' quality of life. Medical staff should understand the negative impact of anxiety on asthma control; therefore, early identification of anxiety symptoms improves quality of life and control of the underlying somatic disease [9]. Asthma-specific fears can be reduced through psychotherapeutic interventions, particularly cognitive-behavioral therapy [13] and music-based techniques [18].

Conclusions

Thus, the assessment of patients with bronchial asthma should be comprehensive and include:

- Regular monitoring of psychological status using appropriate questionnaires and interviews;
- Inclusion of psychotherapeutic and nutritional interventions when necessary.

A comprehensive approach to the treatment of bronchial asthma should address not only the physical aspects of the disease but also the psycho-emotional state of the patient. Psychotherapy, family support, and pharmacological therapy can significantly improve patients' quality of life and reduce the risk of disease exacerbations.

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