Psychological Features Of Patients With Bronchial Asthma

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ABSTRACT

Bronchial asthma is a chronic persistent inflammation and pathological process characterized by airway obstruction, including the bronchi, manifested by episodes of suffocation or asthmatic conditions. In the 21st century, bronchial asthma remains a significant focus in global scientific research. First, this disease is widespread, and this trend is expected to continue for at least the next ten years. Second, bronchial asthma has become not only a medical issue but also an important socio-economic problem for states. Third, epidemiological studies play a crucial role in addressing issues related to bronchial asthma, but, despite this, such research has significantly decreased in the CIS countries.

Keywords: Bronchial asthma, psychological status, bronchospasm, panic attacks, psychotherapy.

Relevance

Bronchial asthma is a chronic persistent inflammation and pathological process leading to airway obstruction, including the bronchi, and is characterized by episodes of suffocation or asthmatic conditions. In the 21st century, bronchial asthma continues to be one of the main global problems in prestigious scientific research. First, the disease is widespread, and the trend is expected to continue for about ten more years. Second, bronchial asthma has become not only a medical issue but also a significant socio-economic problem for states. Third, epidemiological research is crucial for addressing problems related to bronchial asthma, but despite this, such research is severely lacking in CIS countries. The evaluation of the psychological status of patients with bronchial asthma plays a significant role in the comprehensive approach to treating this disease. Given the chronic nature of asthma and its potential complications, it is important to regularly monitor the psychological condition of patients. The prevention of the disease in primary health care facilities, early identification of risk factors, and the development of measures to prevent the disease lead to a reduction in cases of morbidity, disability, and mortality from bronchial asthma. As a serious chronic disease affecting people of all ages and nationalities, bronchial asthma remains a relevant area of study for clinical psychologists and physicians from various specialties. Bronchial asthma is a significant public health problem in many countries worldwide. Among respiratory diseases, bronchial asthma ranks second in prevalence after chronic obstructive pulmonary disease. In

developed countries, around 5-12% of the population suffers from bronchial asthma. According to data from 48 countries, the average asthma incidence rate is 7.9 per 100,000 population, and it continues to grow, highlighting the high medical and social importance of the disease. Annually, 180,000 people die from bronchial asthma and its complications. The highest mortality rates are reported in China and Russia, at 36.7 and 28.6 per 100,000 population, respectively. Significant costs for diagnosing and treating patients with bronchial asthma impact the economy of many countries. It can be assumed that the recent increase in bronchial asthma prevalence is linked to improved diagnostic quality, while the decrease in severe, life-threatening asthma exacerbations is due to improved treatment outcomes.

The introduction of the international GINA program (Global Initiative for Asthma), based on evidence-based medicine principles, has contributed to developing unified approaches to diagnosing and treating this pathology. However, as shown by the analysis of the diagnostic and treatment process in asthma patients, there are significant gaps in the quality of diagnosis, management, and treatment of these patients at various stages of medical care. Simultaneously, the clinical picture of the disease is changing, which necessitates further study of its pathogenesis and the search for effective methods of prevention and treatment.

The current understanding of the pathogenesis of bronchial asthma is based on the inflammatory theory, which suggests that inflammation is persistent, regardless of the disease's severity.

A distinctive phenotypic feature of bronchial asthma is airway hyperreactivity. A specific case of this hyperreactivity, resulting in bronchospasm when exposed to cold air, is cold-induced airway hyperreactivity. Despite the fact that cold reactions play a primary role in some patients and negatively affect them in northern regions for more than half the year, this phenomenon is insufficiently studied.

Bronchial asthma is traditionally considered a psychosomatic disease, falling within the group of pathological conditions resulting from the interaction of somatic and psychological pathogenic factors. In modern understanding, psychosomatic disorders include not only psychosomatic diseases in a narrow sense but also a broader spectrum. In medical practice, asthma often shows various psychosomatic interactions, including psychogenic triggers for bronchoconstriction attacks, adverse and aggravating mental disorders (anxiety, depression, asthenia), psycho-emotional reactions to the disease's fact and character (nosogenesis), and somatogenic issues (symptomatic psychoses, complications from hormone therapy).

As a severe chronic disease, bronchial asthma impacts all aspects of a patient's life. It leads to social and family issues, reduced work capacity, and decreased quality of life or overall well-being. Over time, clinical and experimental data have highlighted the need to identify psychological factors and behavioral traits that influence the onset, progression, and course of bronchial asthma. In particular, psycho-emotional stress situations can often trigger exacerbations of asthma. Numerous foreign studies have found systematic links between lung function and daily mood changes in asthma patients.

Nervous and psychological manifestations accompanying asthma may result from changes primarily affecting the autonomic or central nervous system.

Among the psychological features of asthma patients, many authors highlight reactive anxiety. Some believe that anxiety's progression can be used to assess disease progression and predict exacerbation frequency. Anxiety, as a syndrome, includes emotional, behavioral, and physiological components. Anxiety, emerging as a subjective reflection of disrupted psycho-vegetative equilibrium, is the most intimate mechanism of mental stress and underpins most psychopathological manifestations. It has been observed that patients with asthma-like respiratory issues tend to be more anxious and hypochondriacal than those with actual bronchial asthma. However, the anxiety syndrome itself is also common in asthma (up to 46.7%).

Panic attacks often manifest during asthma

exacerbations and in patients with hyperventilation syndrome. These attacks can occur during bronchial asthma episodes (accompanied by a decrease in peak expiratory flow by more than 15% during peak flow measurement) or between attacks (not accompanied by a decrease in peak flow). Among the bodily symptoms, asthma-related attacks are marked by pronounced dyspnea with difficulty exhaling (expiratory dyspnea), paroxysmal cough (the coughing equivalent of an asthma attack), and a feeling of chest tightness, as well as tension in the abdominal and upper shoulder muscles. Among asthma patients, those with panic disorder are more prevalent than in the general population. Often (up to 71%), panic is accompanied by a fear of death from acute airway obstruction. Panic attacks impact the course and severity of asthma.

Psychological factors, such as emotional state, anxiety, defense mechanisms, alexithymia, and personality traits, play an important role in the dynamics of asthma. Moreover, in the therapeutic process, difficulties in relationships between asthma patients and healthcare workers are often observed, particularly when there is low (negative) cooperation. Positive cooperation is essential for improving treatment effectiveness, achieving, and maintaining asthma control, and enhancing patients' quality of life.

Healthcare professionals must understand the negative impact of anxiety on asthma control, as identifying early signs of anxiety syndrome improves both the quality of life and asthma management. Specific asthma-related fears can be reduced through psychotherapeutic interventions, such as cognitive-behavioral therapy and musical techniques.

Thus, assessing the condition of a patient with asthma should be comprehensive, considering:

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

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

Conclusions

1. Psychological factors play a significant role in the development, progression, and course of bronchial asthma. Regular monitoring of the psychological status of patients is crucial for improving treatment outcomes and overall quality of life.
2. Anxiety, reactive stress, and panic attacks are commonly observed in asthma patients and often exacerbate the condition. Addressing these psychological factors through psychotherapeutic interventions, such as cognitive-behavioral therapy, can help alleviate asthma symptoms and reduce the frequency of exacerbations.
3. The cooperation between patients and healthcare providers is essential for effective asthma management. Positive cooperation and communication between doctors and patients can improve treatment adherence, ensuring better control over the disease and an enhanced quality of life.
4. The integration of psychological support, including psychotherapy and family involvement, along with pharmacological treatment, is necessary for a holistic approach to asthma management.
5. There is a growing need for more research into the psychological aspects of bronchial asthma, especially in the context of psychosomatic interactions and their influence on disease outcomes.

List of References

1. Abdusalamov A.B. Principles of social and labor rehabilitation in bronchial asthma / A.B. Abdusalamov // Pulmonology. – 2004. – No. 2. – P. 85-89.

2. Avayan L.M. Characteristics of individuals first recognized as disabled due to bronchial asthma (based on materials)
3. Bogovin L.V. et al. Non-pharmacological methods to achieve control in bronchial asthma: Monograph. Vladivostok, 2016.
4. Bronchial asthma / Yu.S. Landyshev [et al.]. Blagoveshchensk: AGMA, 2010. 136 p.
5. Bronchial hyperreactivity to cold air in patients with bronchial asthma: its significance in diagnosis and treatment effectiveness assessment / G.V. Demina [et al.]. URL: http://www.dc.baikal.ru (accessed: 02.02.2011).
6. Demko I.P. Bronchial asthma: clinical and economic aspects / I.P. Demko, I.P. Artyukhov, M.M. Petrova // Vrach. 2007. – No. 5. – P. 74-76.
7. Zakharova Yu.V., New approaches to assessing the level of bronchial asthma control / Yu.V. Zakharova, A.A. Punin, G.N. Fedorov et al. // Tuberculosis and lung diseases. Publishing house "New Terra". – 2011. – No. 2. – P. 44-48.
8. Knyazheskaya N.P. Principles of bronchial asthma treatment // Medical Council. 2011. No. 3-4. P. 26-32.
9. Kobrinsky B.A. Principles of mathematical-statistical analysis of medical-biological research data // Russ. Journ. Perinatol. and Ped. 1996. No. 4. P. 60-64.
10. Kovpak D.V., Pavlova I.A. Effectiveness of the integrative model of cognitive-behavioral psychotherapy in the treatment of anxiety-phobic disorders // Clinical Pavlov Readings: Collection of works. Volume Four. "Anxiety" / edited by A.V. Kurpatov. St. Petersburg: Chelovek, 2002. P. 16-19.
11. Kozlov V.V. Free breathing: methodological guidelines. Moscow: Moscow Transpersonal Center, 1993. 110 p.
12. Kozyulya V.G. Application of the SMOL psychological test for studying adolescents. Brief guide. Moscow: Folium, 1994. 64 p.
13. Kolosov V.P., Perelman Yu.M., Gelzer B.I. Respiratory tract reactivity in chronic obstructive pulmonary disease. Vladivostok: Dalnauka, 2006. 184 p.
14. Kolosov V.P., Pirogov A.B., Semirech Yu.O., Perelman Yu.M. Control indicators in bronchial asthma patients with cold bronchial hyperreactivity // Pulmonology. 2010. No. 3. P. 53-56.
15. Kolpakova A.F., Leschinskaya V.V. Features of behavior in patients with bronchial asthma // 16th National Congress on Respiratory Diseases, 2nd Congress of the Eurasian Respiratory Society: Proceedings of the Congress. St. Petersburg, 2006. P. 17.
16. Korkina M.V., Marilov V.V. Variants of psychosomatic personality development in gastrointestinal diseases // Journal of Neurology and Psychiatry. 1995. Vol. 95, No. 6. P. 43-48.
17. Kornetov N.A. Depressive disorders. Diagnosis, systematics, semiotics, therapy. Tomsk: Siberian Publishing House, 2001. 130 p.
18. Kostina L.M. Methods of diagnosing anxiety. St. Petersburg: Rech, 2005. 198 p.
19. Lazutkina E.L., Bogovin L.V. Clinical and psychological characteristics of individuals with bronchial asthma and their psychotherapeutic correction // Issues of epidemiology, clinical practice, diagnosis, and treatment of tuberculosis. Blagoveshchensk, 2001. P. 147-148.
20. Lasitsa O.I. Exercise-induced asthma // Ukr. Pulmonol. Journal. 2000. No. 2, supplement. P. 42-43.

21. Mizernitsky Yu.L. The significance of environmental factors in bronchial asthma in children. Author's abstract of the doctoral dissertation / Yu.L. Mizernitsky. – Moscow, 2011. – 19 p.
22. Kh. Bureau of Medical and Social Expertise of Moscow) / L.M. Avayan // Clinical Medicine. – 2007. – No. 6. – P. 36-37.
23. Chuchalin A.G. Global strategy for the treatment and prevention of bronchial asthma / A.G. Chuchalin. – Moscow: Atmosfera, 2007.
24. Diagnosis and treatment of asthma in childhood: a PRACTALL consensus report // Allergy. 2008. Vol. 63. P. 5–34. Morikawa A. Japanese Society of Pediatric Allergy and Clinical Immunology.
25. New Japanese pediatric guidelines for the treatment and management of bronchial asthma / A. Morikawa, S. Nishima // Pediatr. Int. – 2010. – No. 6. – P. 1023-1031.