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PSYCHOPATHOLOGICAL CONSTITUENT OF BRONCHO-OBSTRUCTIVE SYNDROME IN CHILDREN (A LITERATURE REVIEW)

Burbela E.
I.Ya. Horbachevsky Ternopil State Medical University

In field of pathogenetic links of children bronchial obstruction there is a certain lack of clinical psychological research. Translation psychosomatic relationships in this pathology on clinical language links will objectify the causal factors of the disease and improve the efficiency of treatment.
Key words: bronchial obstruction, children, psychopathology

Introduction

Life conditions of modern humans increasingly are different from those which took place most of the evolution of mankind. Therefore, individuals with certain genotypes pathologically react on sudden changes in the environment [1]. In recent decades there has been a significant increase in psychosomatic disorders, which are considered appropriate «pathology of modern civilization» [14,19,28], because they are caused by harmful psychological and socio-psychological factors that are almost always within range of modern civilization [25,26]. Despite the numerous publications about role of psychological characteristics of the body in case of illness, psychological reactions and psychosocial roots of chronic diseases, modern pediatrics, mostly still based on «bodily» approach to understanding somatic disease.

Respiratory diseases are socially meaningful illnesses in which psychopathological disorders are fairly common [10,15,16]. Among them through a significant and ever-increasing prevalence in the population attracts ever more attention broncho-obstructive syndrome (BOS) and bronchial asthma (BA) in particular. Despite contradictory views about whether there BA a psychosomatic pathology we can not accept a significant role in causing psycho-emotional processes, course and treatment of this disease [11,18]. Considering this is a grounded analysis of the psychological characteristics of patients with asthma and the role of mental, «spiritual» component in the development and course of the disease.

Materials and methods

Was conducted a literature overview of the past ten years of studying the psychological characteristics in children with broncho-obstructive syndrome which dominated.

Results and discussion

According to supporters of science psychosomatic asthma related to psychosomatic diseases and often aggravated by emotional discomfort background [2]. «According to the functional state of the nervous system and the complex response to external factors and the state of the internal environment of the nervous and endocrine systems, all ... psychogenic reaction is a summary result of the integrated functioning of these systems. According to our results all asthma patients have varying degrees of violations in neuropsychological status» [24]. Broncho-obstruction (asthmatic) attack is a symptom of which is directly caused by spasm of the bronchioles. Clinical data clearly indicate that such local spasm may be caused by the influence of both allergen and emotional factors [10]. According to modern concepts of genesis of obstructive bronchitis and asthma primary symptoms include a combination of nonspecific stress changes, in particular, negatively stained mental stress, vegetative imbalance,

subclinical endocrine dysfunction, with extrinsic «triggers» — dust, allergens, etc. [9]. Formation of typical clinical manifestations of asthma caused expressed «contribution» of biological factors (toxic and allergic inflammation) in combination with anxiety mediated vegetative reactions [5]. Psychopathological aspect of asthma is not limited to anxiety response. There are fear episodes acute during deployed asthmatic attacks. Often asthma in adults takes the form of chronic disorders with anxious suspense of attacks, claustrophobia, acrophobia. As their recurrence disturbing emotional fluctuations gradually transformed into a stable, subdepressive state [23]. Further progression of asthma with increased bronchial obstruction, apparently due to changes also psychopathological components in the overall clinical picture. Dramatic awareness of the fact of grave physical illness and associated limitation modify the content of affective disorders: anxiety loses its acuity, but alongside with it or instead are elements of sadness, frustration with the experience of the futility of treatment, depending on the treatment. Increasing somatic asthenia brings a sense of serious physical illness, which is close to revivification of affect [17].

Psychosomatic character of bronchial spasms was clearly observed experimentally on guinea pigs that react to allergens asthma attacks, these attacks succeeded conditional reflexly associated with acoustic signal (as was done with dogs, Pavlov: turn on the light they started excretion gastric juice). Already after 5 evidence of this connection an asthma attack was advancing in them only in response to an acoustic signal. Scientists was interested in similar examples and conducted a series of experiments on human beings. And found that in humans also can cause an allergic reaction without allergen. When a person in the study was told that now will be imposed allergen and administered plain water, in some cases developed a full allergic reaction [6].

Personality characteristics of patients suffering from bronchial asthma, assessed differently. In many cases it is not possible to get an idea about the state of psychics

before disease because children very early fall ill with asthma. Anxious-depressive disorders (ADD) occur in 78% of adults with asthma and is common functional disorder in clinical asthma moderate and severe course. In the course of asthma compatible with erosive and ulcerative lesions of gastroduodenal ADD are more common and more pronounced. Peculiarity of anxiety-depressive disorders in bronchial asthma is their close relationship to the occurrence, severity, duration of disease and duration of exacerbations [23]. The disease is a stressful factor that causes the development of anxiety disorders in children and adolescent patients, and detected specific behavior of children with asthma indicate the presence of problems of adaptation because of its severity personal response to illness sensitively type of attitude to the disease, increased risk of violation compliance [20]. In patients with asthma the connection between quality of life and somatogenic caused by somatic-mental states: anxiety, neuroticism and depression [12,13]

One of the pathogenesis links in asthma development is a change in neurogenic regulation of smooth muscle tone of the bronchi caused by dysfunction of the sympathetic and parasympathetic autonomic innervation of the bronchial tree. In normal bronchial tonus regulation involved the sympathetic and parasympathetic divisions of the autonomic nervous system. Inflammatory changes «distort» the normal sensitivity of the receptor endings to the action of normal physiological incentives, leading to the formation of bronchial hyperresponsiveness [21,22]. Hyperreactive bronchial responding consist of hyperresponsiveness that caused an imbalance parasympathetic and sympathetic autonomic innervation of bronchial with hyperreactivity which caused by development of inflammation of the walls of the respiratory tract [3,9,29,30]. In the study of the role of the autonomic nervous system in the genesis of atopic asthma in childhood were identified features of the interaction of sympathetic and parasympathetic parts of the autonomic nervous system, which showed mainly compensatory adaptive reaction in children in response to the inherent asthma chronic allergic inflammation [5,30]. Parasimpatheticotonia in this disease may be a manifestation of failure of adaptation and adaptive capacity child's body or leading pathogenetic link in case of bronchospasm. features of the course and prognosis of obstructive symptoms in children may be associated with features of autonomic homeostasis [7]. In children with atopic asthma existing vegetative imbalance with a predominance of sympathetic orientation in functioning autonomic nervous system, which can also be caused by heredity [7].

Psychovegetative syndrome as indispensable physiological process takes pathological character in excessive voltage stress for the child (which is the fear of suffocation with BOS) and chronic emotional states, which inevitably cause viscero-autonomic disorders. But the study of mental and emotional status of children with acute obstructive bronchitis, and the definition of its role in the disease is not paid enough attention to this problem and requires an examination and correction. Asthma, like any chronic disease seriously affects the social life of patients and their parents. This effect is realized in many areas: work, school, physical activity, communication, emotional well-being [27,31]. Research of internal picture of the disease and personal characteristics teenagers and senior pupils with asthma showed that a greater extent than in healthy peers, they have expressed the need for security and protection. At the same time, sick children, especially teenagers, often have problems in their relationships with peers and conflicts in the family. Despite the fact that sick children want to be healthy, they often use their illness to solve various problems [8]. In the analysis of clinical and psychological characteristics of asthma in children of school age with at least a one-time need hospitalization to ICU most significantly associated absence of optimal emotional contact between mother and child ($\leq$16 points), which is recommended to apply the complex medical and psychological factors to evaluate risk of asthma status in children with persistent asthma [4].

Conclusions

Therefore the study of asthma and BOS from the standpoint of integrative interdisciplinary psychosomatic approach seems now very important. In the field of psychosomatic research BOS felt a certain lack of pathopsychological studies represent a theoretical opposition to the construction of mental phenomena trends with asthma to psychological and neurophysiological aspects. Translation psychosomatic relationships in asthma into the clinical language ties certainly give such important benefits as objective analysis and the ability to confirm the explanation of phenomena by laboratory facts.

Prospects for further research. Disturbance of child health at BOS are characterized by structural damage at different structure levels of the body – physical (organic) and spiritual (mentally). It's worth to hold the development of psychosomatic in pediatric science that would improve the treatment of these patients with regard to psychosomatic component of this disease.

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