

INFLUENCE OF THE CARDIOVASCULAR SYSTEM TO STRESS

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Abstract: This article provides information on the effects and negative consequences of stress on cardiovascular activity. In it, the response of heart activity to stress, pathological and physiological changes in it, and the factors of occurrence of the disease were discussed.

Key words: psychological stress, cardiovascular system, somatomorphic, psychosomatic

INTRODUCTION

Physical and mental health is the main determining factor in the quality of life, allowing integration into society at any age. The circumstances under which the life of a modern person takes place are rightly called extreme, and in turn they stimulate the development of stress. According to statistics, 75% of working women and 52% of men experience physical and psychological stress.

According to the World Health Organization, the percentage of diseases associated with stress is 45%. The detrimental health effects of chronic stress and its contribution to mental illness have received particular attention worldwide. No person is immune from stress; people with high levels of fear, emotionally unstable and prone to depressive reactions are especially susceptible to it. Purpose of the study: to analyze the works of domestic and foreign scientists on the problem of the reactivity of the cardiovascular system to stress.

MAIN PART

The problem of stress is relevant in the life of every person. Today, psychoemotional disorders are considered the main factor in the development of psychosomatic pathology. Analyzing the works of researchers on this issue, we can conclude that the stress effect on the body can be both positive and negative. Stress has a beneficial effect only when it is short-lived and not very strong. However, if stressful effects are intense, acute and prolonged, then they portend devastating consequences for human health and his life.

A stressful situation is a determinant that causes excessive stress on the psychological self-regulation system and in most cases can lead to the development of emotional stress. Stress is emotional arousal and causes changes in other areas of mental functioning. Stress (from the English stress - “pressure, tension”) is a nonspecific reaction of the body (the same for all types of influences) to the adverse effects of external physical or psychological factors, which disrupts its homeostasis and corresponds to the state of the body’s nervous system, expressed in its adaptation to unusual extreme conditions. It is also worth noting that stress as a physical and psychological state is one of the responses to critical life situations and actions.

Canadian physiologist G. Selye claims that stress is inevitable in the life of every person; its complete absence would mean death. Moreover, the scientist emphasized that in certain amounts, stress can even have a positive effect on the body, increasing the speed of information processing, increasing metabolic rate and vitality in general. However, most often, stressful effects are long-lasting and lead to significant changes in the functioning of various physiological systems of the body and its functional state.

Intense intellectual work, increased static load, limitation of motor functions, disruption of the daily routine, emotional shocks, emotiveness and much more are directly related to negative factors that contribute to the process of formation of psycho-emotional stress due to overload of the autonomic nervous system, which, in turn, regulates normal functioning.

In addition to external stress factors, the level of stress is naturally influenced by the individual ability of the body to maintain a balanced emotional and psychological state. The understanding of the concept of psychological stress was formed due to the established priority role of psycho-emotional and psychosocial environmental factors in the development of this unfavorable state.

In recent years, increasing attention has been paid to the study of the rhythmic organization of processes in the body both under normal and pathological conditions.

The phenomenon of stress is constantly in the focus of attention of researchers in various fields of knowledge - physiology, pedagogy, psychology, etc. With all this, post-stress disorders cause a wide range of somatomorphic and psychosomatic disorders. Stress occupies a leading place among the reasons that cause emotional imbalance in a person.

From the physiological side, stress is considered as a process of internal changes occurring in the body in response to powerful, long-term exposure to various factors, which are called stressors, or stress factors. By influencing the human body, negative factors activate the trigger mechanism of the stress response, the implementation of which follows the scheme: anxiety - adaptation - exhaustion and is controlled by the sympathetic department of the autonomic nervous system.

The study of the mechanisms of influence of chronic stressors on human health is considered relevant, since these factors are the basis for the development of negative stress (distress). The result of negative stress is expressed in a decrease in the activity of the immune system, damage and destruction of cells, changes in functions, and interruptions in the functioning of internal organs and systems of the human body. Based on the above, distress is considered the basis for the development of pathologies of various kinds.

The nature of the emotions that arise during stressful situations depends on several factors: the characteristics of a person's personality (such as the type of higher nervous activity), the presence or absence of the necessary information, and relationships with the surrounding society. In a state of acute stress, certain adaptive mechanisms are activated, expressed by the physiological and psychological reactions of the body in response to the influence of the stress factor.

There is evidence that chronic stress and emotional exhaustion are associated with physiological impairments in the body. The state of emotional, physical and mental exhaustion that occurs as a result of chronic stress at work significantly changes the psychophysiological parameters of a person.

CONCLUSION

Chronic stress can impair the functions of the autonomic nervous system, influence the development of cardiovascular diseases and specific psychosomatic disorders, as has been observed in an increasing number of studies. Stress can cause reactive depression, nervous breakdowns, and the development of deep functional disorders and diseases. Reducing stress generally improves mental health, increases the ability to live a healthy lifestyle, and helps a person follow preventive recommendations to reduce the risk of cardiovascular disease.

From the above, we can conclude that the cardiovascular system is considered an integral marker of the functional state of the body, as a result of which the study of the state of the main indicators of this physiological system makes it possible to deepen the understanding of the adaptation processes that occur during stressful situations.

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