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STUDY OF THE DEGREE OF IMPACT OF IMMUNOPROTECTORS ON THE HUMAN BODY

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Annotation: The human immune system plays a key role in protecting the body from various pathogens and maintaining homeostasis. In modern conditions, when the influence of stress factors, unfavorable ecology and infectious agents increases, immunoprotectors - substances capable of modulating the immune response - acquire special significance. This paper examines various types of immunoprotectors, their mechanisms of action and the degree of impact on the body. Natural and synthetic immunomodulators, their effectiveness and safety are analyzed.

Particular attention is paid to the influence of dosage, route of administration and individual patient characteristics on the effectiveness of immunoprotective therapy. The data obtained may be useful for developing optimal strategies for the prevention and treatment of diseases associated with immune system dysfunction.

Keywords: immunoprotectors, immune system, immunomodulation, natural and synthetic immunoprotectors, immune response, immunocorrection, prevention, immune therapy.

Introduction

The immune system plays a vital role in protecting the human body from pathogenic microorganisms, viruses and other adverse factors. Its normal functioning ensures resistance to infectious diseases and maintains homeostasis. However, various external and internal

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influences, such as stress, adverse events, age-related changes and chronic diseases, can lead to a decrease in the immune response. In this regard, an important area of modern medicine is the study of immunoprotectors - substances that can activate or regulate the immune system. Immunoprotectors can be of natural origin (plant extracts, biologically active compounds) and synthetic (pharmacological drugs, vaccines, peptide complexes). Their use is aimed at increasing the body's resistance to infections, accelerating recovery from illness and improving overall health. This study is devoted to studying the degree of impact of various immunoprotectors on the human body. The mechanisms of their action, effectiveness and safety of use, as well as factors affecting their activity are considered. Analysis of the obtained data will allow us to determine the most promising approaches to the use of immunoprotectors in the prevention and treatment of immunodeficiency states.

Methods and materials

During the study, both theoretical and experimental methods were used to study the effect of immunoprotectors on the human body.

Research methods

1. **Analysis of literature data**– study of scientific publications and clinical studies devoted to the action of immunoprotectors.
2. **Clinical observations**– monitoring the health status of subjects, subjective assessment of well-being, frequency and severity of diseases.

The use of an integrated approach in the study will allow us to determine the degree of effectiveness of various immunoprotectors and identify the most promising means for strengthening the immune system.

Results and discussion

Analysis of the obtained data showed that different groups of immunoprotectors have different effects on the immune system, which depends on their composition, mechanism of action and individual characteristics of the body.

1. Natural immunoprotectors

Plant extracts (echinacea, ginseng, lemongrass) contributed to a moderate increase in the level of immunoglobulins IgA and IgG.

2. Synthetic drugs

Immunomodulatory drugs (interferons, thymic peptides) caused a significant increase in the activity of the T-cell link of immunity, which was confirmed by an increase in the level of IL-2 and IFN-γ.

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Discussion

1. This information confirms the effectiveness of various immunoprotectors, but reveals differences in their mechanisms of action. 2. Natural immunoprotectors exhibit a mild but stable effect, which makes them suitable for long-term use. 3. Synthetic immunomodulators have a pronounced effect, but require careful use due to possible side effects.

Conclusion

The results of the study showed that immunoprotectors have a significant effect on the immune system, but their effectiveness and safety depend on a number of factors, including composition, mechanism of action, dosage and individual characteristics of the body. Natural immunoprotectors (plant extracts, probiotics) demonstrate a mild but stable effect, helping to strengthen the immune system without significant side effects. Synthetic immunomodulators have a more pronounced effect, but their use requires monitoring due to possible adverse effects. Thus, the choice and use of immunoprotectors should be based on a thorough analysis of the patient's immune system in order to minimize risks and increase the effectiveness of therapy. Further research in this area will help develop more accurate and personalized approaches to immunocorrection, which is especially important in the context of modern healthcare challenges.

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