



CLASSIFICATION OF INFECTIOUS DISEASES CAUSED BY IMMUNODEFICIENCY IN HUMANS, PRINCIPLES OF THEIR PREVENTION

Alimov N. I.

Xolmatova N. O.

Andijan State Medical Institute, UZbekistan

Abstract

The idea that infection is a process completely dependent on the microorganism dominates the minds of doctors. The same major disorders in the body's immune system that precede it, i.e. immunodeficiencies are ignored. Hence the main therapeutic doctrine - to destroy the microorganism by any means, which causes the emergence of increasingly resistant variants, and attempts to "sterilize" the macroorganism induce dysbiosis and chronic forms of immunopathology.

Keywords: infection, microorganism, immunodeficiency, sterilization, immunopathology.

INTRODUCTION

Despite certain successes in their use, in recent decades, more and more data have accumulated on their ineffectiveness and the alarmingly growing resistance of microbes to them. In this regard, a new infection control strategy is needed.

MATERIALS AND METHODS

Infectious diseases are a large group of human diseases caused by pathogenic viruses, bacteria, rickettsia, fungi and protozoa in sensitive macroorganisms [5]. They are the leading cause of death in the world, killing about 17 million people every year. New infections have appeared - HIV infection, Ebola fever, atypical pneumonia, etc. There is an activation of previously known diseases - tuberculosis, hepatitis, malaria due to the variability of microorganisms and modulation of the immunoreactivity of people towards increasing their sensitivity. The interaction between the immune system and the microorganism can either have no consequences or lead to colonization of tissues, which will manifest itself in a wide range of clinical variants of the infectious process [5].

RESULTS AND DISCUSSION

Infection (infectious process) is a pathological process in the body that occurs as a result of the interaction between a pathogenic microorganism and the cells and tissues of a non-immune, sensitive macroorganism, accompanied by the reproduction of the microorganism, a change in the reactivity of the macroorganism, and tissue damage [3]. Infection is one of the possible results of the interaction between micro- and macroorganisms. Another, probably more common, is natural resistance, the emergence of immunity or its strengthening (if present).

An infectious disease, therefore, is primarily an immunodeficiency disease in an individual, when the pathogenicity of the invading infection is greater than his "immune capabilities" at the time of infection.



The ability of the human body to resist various microorganisms is due to two mechanisms: nonspecific anti-infective resistance, which is immediately aimed at many infectious agents, and the development of specific acquired immunity to specific microorganisms.

Immunodeficiency (ID) - relative or absolute - is the main cause of infections, since with increased immunity after vaccination, resistance to many highly virulent pathogens occurs. Thus, by vaccinating the population, smallpox, which killed millions of people, was eliminated; immunity to measles, polio, influenza, hepatitis B, tick-borne encephalitis, yellow fever and other infections is induced [1]. This proves that even highly virulent pathogens cannot overcome the body's pre-mobilized immune barriers. With relative ID in a healthy non-immune organism, an acute inflammatory reaction and an immune response develops to the infection, which neutralizes it during treatment and recovery, after which adaptive immunity usually occurs. If this does not happen, relative ID can become absolute, which leads to a severe outcome.

Absolute immunodeficiency is a genetic and/or laboratory sign of a defect (insufficiency) of the immune system, with or without clinical manifestations; relative immunodeficiency – insufficiency of immunity of a normal, but non-immune organism to highly virulent pathogens.

Vague concepts are not recommended: “immunodeficiency state”, “immunological deficiency” [3, 5], since they cannot be diagnosed or treated as a disease.

Common signs of immunodeficiency disease

1. The presence of an acute or recurrent (chronic) infectious process of any localization.
2. Detection of viruses, opportunistic bacteria and/or fungi in the lesion.
3. Clinical signs - stigmas characteristic of primary immunodeficiencies in children.
4. Presence of causes (immunosuppressive factors) that caused acquired IDB.
5. Laboratory signs of immunodeficiency, confirmed over time.
6. The effectiveness of immunocorrective therapy.

Primary IDs are genetic abnormalities, usually clinically manifested in children, but sometimes (for example, cIgA deficiency) only in adults. Secondary IDs occur in clinically healthy people under the influence of various causes, although in many of them a genetic predisposition to the development of IDB can be identified.

Causes of secondary immunodeficiencies:

1. Environmental adverse effects on the body and the immune system (physical, chemical, biological).
2. Diseases affecting the immune system:
 - viral (more often);
 - other serious illnesses.
3. Immunosuppressive treatment methods:
 - drug immunosuppression;
 - surgical interventions and anesthesia;=.



CONCLUSION

The use of “mild” immunostimulants in cases of sufficiently preserved SI reactivity prevents relapses of the disease, i.e. provides immunorehabilitation. For this purpose, during the period of remission, adaptogens, immunostimulants of plant origin (echinacea, ginseng, etc.), as well as vitamins and microelements are prescribed orally. They use courses of physioimmunotherapy (EHF, magnetic therapy, etc.) [2, 5].

The main strategy to combat infections as a consequence of immunodeficiencies in the 21st century should be an immunoprophylactic increase in population and individual nonspecific and specific resistance - immunity in people.

REFERENCES

1. Ershov F.I. The interferon system in normal and pathological conditions. – M.: Medicine, 2016. – 310 p.
2. Zemskov A.M., Karaulov A.V., Zemskov V.M. Combined immunocorrection. – M.: Medicine, 2014. – 250 p.
3. Immunodeficiency states / ed. V.S. Smirnova, I.S. Freidlin. – St. Petersburg, 2010. – 557 p.
4. Immunopathology and allergology. Standards of diagnosis and treatment / ed. R.M. Khaitova. – M., 2011. – 105 p.
5. Infectious diseases /ed. IN AND. Pokrovsky. – 2016. – 527 p.
6. Clinical immunology and allergology: textbook. manual / ed. Karaulova A.V. – M.: Med. information agency, 2012. – 651 p.