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Origin and Epidemiology of Infectious Diseases

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Abstract. *This scientific study provides information on the origin, history, role, epidemiology, and causes of infectious diseases. The incidence of infectious diseases in the population is of particular importance. A lot of information has been accumulated on the study of various aspects of infectious diseases. Today, scientists are working diligently on unresolved problems in this area. Despite the progress made in eliminating or reducing many infectious diseases, these diseases still cause great harm to the health of the population. One of the main tasks of the Ministry of Health of the Republic of Uzbekistan today is to combat infectious diseases and prevent them. Infectious diseases have their own laws, which are the occurrence of epidemics after a certain period of time or the emergence of new infectious diseases on the eve of the elimination of some diseases.*

Key words: *The famous French, Robert Koch, Infectious disease, period of time, aspects, diagnosis of patients.*

Introduction

The incidence of infectious diseases in the population is of particular importance. A lot of information has been accumulated on the study of various aspects of infectious diseases. Today, scientists are working diligently on unresolved problems in this area. Despite the progress made in eliminating or reducing many infectious diseases, these diseases still cause great harm to the health of the population. One of the main tasks of the Ministry of Health of the Republic of Uzbekistan today is to combat infectious diseases and prevent them. Infectious diseases have their own laws, which are the occurrence of epidemics after a certain period of time or the emergence of new infectious diseases on the eve of the elimination of some diseases. These laws require medical workers to be prepared for various epidemiological situations, make a diagnosis without delay, provide emergency care, and take timely preventive measures. This manual covers infectious diseases, general epidemiology, and medical parasitology. The general part covers a brief history of the development of the science, infectious and parasitic diseases and their characteristics, general epidemiological aspects, diagnosis of patients, treatment methods, and nutrition of patients. It is especially important to correctly perform skills in respiration, digestion, blood-borne diseases, diseases transmitted by various other routes, and infections of the external covering, examination methods, obtaining materials for laboratory tests, parenteral administration of drugs, patient care, and emergency care. At the same time, it is necessary to once again convince patients of the importance of proper nutrition and care for them for their speedy recovery.

Methodology

The essence of infectious diseases, the causes of their occurrence have long been unknown. However, the wise men of that time paid attention to the fact that these diseases have the property of being transmitted from a sick person to a healthy person. Later, the idea arose that infectious diseases are of two types: 1) Certain infectious diseases arise as a result of the entry into the human body of a special harmful substance (miasma) that occurs in the external environment, for example, malaria is

a disease that occurs as a result of the entry into the body of a special “miasma” that forms in swamps; 2) The second type of diseases is transmitted by contact when healthy people are close to the patient. From this it became clear that the cause of the diseases is called “contagium”, and the diseases themselves are called “contagious diseases”. The famous French scientist Louis Pasteur (1822-1895) conducted special studies and convincingly proved the role of microorganisms in the development of infectious diseases in humans. L. Pasteur introduced the method of obtaining a vaccine, which is used to vaccinate against infectious diseases by weakening microorganisms. He developed a vaccine against rabies and anthrax and recommended it for widespread use. L. Pasteur's rabies vaccine is of great importance. Thanks to this vaccine, people have the opportunity to avoid contracting the terrible rabies disease, which always ends in death. The German scientist Robert Koch (1843-1910) occupies a special place in the study of the nature of infectious diseases and the causes of their occurrence.

Results and discussion

Danilo Samoilovich (1724-1805) correctly guessed that infectious diseases are caused by living animals. There is historical evidence that he searched for the plague microbe using a microscope. Samoilovich conducted more research on the transmission of diseases by contact, in particular, he tried to stop the transmission and spread of the disease to others by disinfecting the clothes of a plague patient. I.I. Mechnikov (1845-1916) substantiated the doctrine of infection and immunity. In addition, he enriched and developed the epidemiology of cholera, relapsing fever, typhus, dysentery, and tuberculosis with new evidence. S.P. Botkin (1832-1889) and A.A. Ostroumov also played a significant role in the development of the doctrine of infectious diseases. S.P. Botkin noted in the 1860s that “catarrhal jaundice is an infectious disease.” He also comprehensively studied some of the features of the clinic of internal sweating in those years and explained them in detail in medicine. A.A. Ostroumov (1844-1908) emphasizes that in the treatment of infectious diseases, increasing the strength of the patient's body plays a decisive role. The role of Y.N. Pavlovsky (1884-1956) in the development of parasitology and the epidemiology of parasitic diseases is incomparable. Pavlovsky's doctrine of "medical foci of infectious diseases" is recognized by specialists all over the world. Academician K.I. Skryabin (1878-1972) became famous for his research in the field of studying various worms, that is, helminths. The idea of completely eliminating a number of helminths belongs to K.I. Skryabin. A.I., who worked at the Faculty of Medicine of the Turkestan University, founded in Tashkent in 1920, Kryukov (1878-1952), P.F. Borovsky (1898-1971) and others. They made a great contribution to the comprehensive study of various infectious and parasitic diseases that were widespread in Central Asia at that time and to the implementation of measures against them. Before the revolution, in 1897, P.F. Borovsky, who worked in a military hospital in Tashkent, discovered the causative agent of cutaneous leishmaniasis, that is, a malignant wound disease, Leishmania. This Leishmania is named after Borovsky. Infectious disease pathogens develop in different ways. Many of them (dysentery, malaria, and worm infestations) have been known since ancient times, and a number of diseases were transmitted to humans from domestic and wild animals.

Conclusion

Some types of diseases are specific to humans (anthroponosis), while others are common to humans and animals (zoonosis). The causative agents of many diseases originated from saprophytes, which later turned into pathogenic parasites. This process, that is, the emergence of infectious diseases, continues to this day. The word infection, taken in a narrow sense, means the entry of a microorganism into a macroorganism. Infection (from the Latin infectio - contamination, infection) is the entry of disease-causing microorganisms into the body, during which a complex of processes develops between the organism and them. The infectious process is a set of physiological defenses and pathological reactions that occur in the body in response to the action of pathogens under certain external environmental conditions. From a biological point of view, the infectious process is a special form of parasitism, in which two organisms with different living conditions struggle. Infectious disease is the last stage of the development of the infectious process, which occurs in the form of biological, chemical, clinical and epidemiological changes and various symptoms. The relationship between microorganisms and their products and the cells of the human body manifests itself in various ways. This depends on the properties of the microbe, the state of the organism, external environmental

conditions and social factors. Under their influence, the following manifestations of infection are formed: Manifest (exogenous) infection - in which the symptoms of the disease are clearly manifested and correspond to the classical form. Acute and chronic forms of infection are well studied. In this, typical and atypical infections are distinguished. Manifest infection can occur in mild, moderate and severe forms. This infection in most cases ends positively. Subclinical (unnoticeable) infection is a form of the disease that does not have a clear clinical picture. At this time, it is very difficult to diagnose the disease, which leads to a long course of the disease. This form of infection is of great epidemiological importance. Because in this case, the patient, as a source of the disease, spreads the infection while maintaining his working capacity.

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