ROLE OF THE EUROPEAN SCIENTISTS IN THE HISTORY OF MEDICAL MICROBIOLOGY: THE NAMES AND PATHOGENS

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Introduction. The emergence of microbiology as a modern science is closely related to the names of scientists who have contributed to its development. The discovery of causative agents of human infectious diseases by European scientists is recorded in the history in the name of microorganisms, which are the etiological factors of common infections.

Aim. Study of scientific literature of the history of medical microbiology.

Materials and methods. Various information sources of Internet system, interlibrary loan and scientific library were used. An analysis of the literature of the history of medical microbiology.

Results and conclusions. There are names in the history of microbiology that marked the stages of its development. Heinrich Hermann Robert Koch (1843-1910) – germane microbiologist. He opened an anthrax bacillus, a cholera vibrio and a tubercle bacillus sticks of Koch. On March 24, 1882, when he announced that he had managed to isolate the bacterium causing tuberculosis, Koch achieved the greatest triumph in his entire life. At that time, this disease was one of the main causes of death, even in Germany. And in our time, tuberculosis is the main cause of death in developing countries. More people die from tuberculosis than from all other infectious diseases, including AIDS and other diseases caused by HIV. In his report of March 24, 1882, Koch stressed: "As long as there are slums on the ground where the sun's ray does not penetrate, consumption will continue to exist. The sun's rays are death for bacilli of tuberculosis. I undertook my research in the interests of people. For this I worked. I hope that my works will help doctors to lead a systematic struggle against this terrible scourge of mankind." In his publications, Koch developed the principles of "obtaining evidence that a particular microorganism causes certain diseases." These principles still form the basis of medical microbiology.

Alexandre Émile Jean Yersin (1863-1943) -the frenches bacteriologist. Together with Emile Ro discovered the diphtheria toxin (1888). In 1894 he discovered the causative agent of the plague, named after him, Yersinia pestis. Author of works on serology. Several species of bacteria (Yersinia) are named after Yersen, one of which (Yersinia pseudotuberculosis) causes pseudotuberculosis, another (Yersinia enterocolitica) – intestinal yersiniosis, and one (Yersinia pestis) - plague.

Alvin Klebs (1834-1913) – germane bacteriologist, pathologist and physiologist. Works on the study of pathogens of infectious diseases. A. Klebs studied the etiology and ways of transmission of malaria. In 1883 he discovered a bacterium that caused diphtheria. Identified the first filtering virus of animals – the virus of foot and mouth disease. Klebsiella pneumoniae is type of gram-negative facultative-anaerobic conditionally pathogenic bacteria. Are located singly, in pairs and in clusters. The species Klebsiella pneumoniae is a member of the Klebsiella genus, a family of Enterobacteriaceae. Old name of Klebsiella pneumoniae is rode of Friedländer. Carl Friedländer (1847-1887) is germane pathologist and microbiologist, is the author of pure culture of Klebsiella pneumoniae in 1882 year.

The causative agent of typhus – a disease that killed millions of people in the history of mankind – is called "Rickettsia prowazekii." This scientific name became a kind of monument to two scientists, thanks to which people learned who exactly from microorganisms excites this disease. And although they were not familiar with each other, their fates were similar. American Howard Taylor Ricketts and Czech Stanislav Provachek are scientists who solved the mystery of the deadly disease, died of typhus, studying its pathogen.

The name of Howard Ricketts is not particularly known to a wide range of readers, although during his short life (he lived 41 years) this outstanding microbiologist made many remarkable discoveries. Having brilliantly graduated from Northwestern University in 1897, Ricketts decided that his knowledge was not enough to successfully fight infectious diseases, and continued his studies in Berlin - Robert Koch himself later trained at the University of Pasteur in Paris, after which he received. The most highly qualified training, became a professor at the Department of Pathology at the University of Chicago. In 1909, an epidemic of typhus broke out in Mexico City, and Howard Ricketts, who has already earned the fame of a successful fighter with infections, was invited to help. His research has shown that this disease is caused by rickettsia, which is transmitted by bloodsuckers. However, the scientist did not succeed in completing his work, since on May 5, 1910, he died of typhus.

With the outbreak of the First World War, Stanislav Provachek concentrated on studying the causative agent of typhus. As predicted by the predecessor of Provachek, the causative agent of typhus was rickettsia. Moreover, the scientist convincingly proved that lice are its carriers. Having established the cause of the epidemic, Provachek started developing a vaccine, but he could not complete his work to the end. He, like Ricketts, contracted typhus, and on February 17, 1915 Stanislav Provachek died. It is interesting that he, like Ricketts, lived in this world only forty-one years.