

and lecithinase activities, incapable of spore germination on the basal medium or on media with bicarbonate in conditions of increased CO₂ concentration were isolated.

In the group of subcultures resistant to bacteriophage K-VIEV 5 of the 8 subcultures were incapable of germination in the atmosphere of increased CO₂ concentration while among cultures of other groups there were no such strains. The group of 9 subcultures resistant to bacteriophage BA-9 included two cultures differing in their plasmid composition (pXO1⁻, pXO2⁺; pXO1⁻, pXO2⁻). All the 4 subcultures of the group resistant to bacteriophage Gamma A-26, had the genotypes differing from the initial strain and one of them also differed from the others of the group, exhibited low proteolytic activity, the absence of lysis of sheep erythrocytes and expressed ability to immunoprecipitation on a synthetic medium with anthrax γ -globulin.

Thus, in three groups of subcultures of the strain *B. anthracis* 1 (SO), which were isolated on the base of phage resistance to specific anthrax bacteriophages, we revealed not only variability of biological properties, but also peculiarities of phenotypic properties and genetic properties which are more characteristic of certain groups.

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MODERN DIRECTIONS IN OPTIMIZATION OF RABIES SURVEILLANCE

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Rabies is one of the oldest and most studied infections in both animals and humans. Despite the available opportunities for its specific prevention laid by L. Pasteur,

it is still impossible to overcome rabies. Against the backdrop of a steady increase in the incidence of animal rabies, 191 cases of human infection have been reported in Russia since the beginning of the century. More than a thousand unfavorable rabies areas have been identified annually. At least 300 000 people on average seek for medical attention. Economic damage from animal bites amounts more than 3.5 billion rubles a year.

At the same time, recent scientific advances allow us to identify modern directions for the optimization of both epizootic and epidemiological surveillance of rabies. In view of the assessment of the current surveillance system in Russia, the main directions include the improvement of the information base, both epizootic and epidemiological diagnostics, as well as surveillance technology based on an integrated risk assessment and the introduction of molecular biological methods.

It is required to create one unified information resource that contains not only data on the incidence of both human and animal rabies, but also on the dynamics of epidemiologically significant risk factors. These factors include environmental, climatic and social conditions that contribute to the emergence and preservation of risks, as well as the biological characteristics of the pathogen. Thus, such modern resource allows to combine information collected by the participants of sanitary-epidemiological, medical, veterinary and other services. It will serve as a database to create a special geoinformation system in the future. The purpose of this system is the assessment of epizootic and epidemiological risks, as well as forecasting the situation of rabies on its basis. The importance of molecular diagnostics and monitoring also cannot be underestimated. The development of new diagnostic tests and scientifically based approach to monitoring organization contribute to enhancement of surveillance effectiveness.