

**Salmonellosis polyvalent bacteriophage - "MediPhag"» and comparison of lytic activity of «Bacteriophage Salmonellosis group A, B, C, D, E****Научный руководитель – Давранов Кахраман Давранович****Жуманиязова Муhabбат Бахтияровна***Postgraduate*

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Treatment of infectious diseases using bacteriophages is called phagotherapy, in contrast to treatment with antibiotics, phage therapy has a narrow antibacterial spectrum, the scope of action is limited to only one species or in some cases a single strain within the species [4]. However, phages are less toxic to the body [2]. Recent data suggest that the biogeography of prokaryotes may be specific to specific environments, contrary to the notion that “everything can be found everywhere” [5, 6]. This idea leads to the fact that phages can also exhibit biogeography. As a result, bacteriophages distributed in a particular geographical area differ from bacteriophages in other geographic areas in their lysis of local bacterial strains [3], and given that they play an important role in the lysis of bacteria, in this study the lytic properties of «Salmonellosis polyvalent bacteriophage - "MediPhag"» (Series № 010520; Produced 05.2020; Sell by 04.2022) produced by "AZIYA IMMUNOPREPARAT"LLC we conducted experiments on comparison with «Bacteriophage Salmonellosis group A, V, S, D, E» (Series № H31; Data release 0220; Sell by 02.22) produced by JSC "Mikrogen" of the Russian Federation. The same Salmonella strains listed in the instructions for use of both bacteriophage drugs: Salmonella enteritidis №7, Salmonella moscow №14, Salmonella typhimurium №1, Salmonella newport №33, Salmonella muenster №44, Salmonella agama, Salmonella paratyphi B strains. The specificity of bacteriophages, the range and degree of lytic activity, the concentration of phage particles were determined using Otto, Appelman, Gracia methods [7, 1]. The results of these experiments revealed that both bacteriophages exhibited almost the same specificity as all Salmonella strains. According to the range and level of lytic activity of phages, with selected Salmonella strains «Salmonellosis polyvalent bacteriophage - "MediPhag"» was observed to be 1 to 4 degrees higher activity than «Bacteriophage Salmonellosis group A, B, C, D, E». Comparing the concentrations of phage particles, «Salmonellosis Polyvalent Bacteriophage - "MediPhag"» showed that the concentration was 10 to 1000 times higher with selected Salmonella strains than with «Bacteriophage Salmonella group A, B, C, D, E». Based on the above experiments, we can say that bacteriophages are rare viruses, in the treatment of bacterial infections, the use in medicine of bacteriophages derived from their local strains gives the best results.

**References**

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