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BIOLOGICAL PROPERTIES OF PSEUDOMONAS AERUGINOSA CULTURE, ISOLATED FROM A RESERVOIR WITH TECHNICAL WATER

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The problem of providing the population with high quality water belongs to the most important, as it directly influences health of people and determines the

degree of ecological and epidemiological safety.

Water has the substantial value in circulation of *Pseudomonas aeruginosa* basic causative agent of infectious lesions of human. In the water *P. aeruginosa* can survive to year (at 37 °C). Infections, that are caused by a blue pus bacillus are badly treated by antibiotic therapy, that is stipulated by plural resistents, including R-plasmids.

In this connection the theme of work was the study of biological properties of the *Pseudomonas aeruginosa* culture, isolated from a reservoir with technical water.

A research object was technical water which was kept in a ferrous capacity during 80 days at an ambient temperature 30 - 35 $^{\circ}$ C. Samples were taken in five stages.

As a result of the conducted researches from technical water were selected strain of bacteria that was related to the *Pseudomonas* family. On the grounds of biological signs a culture was identified as *P. aeruginosa*.

In connection with the fact that explored technical water is used by population, the study of sensitiveness to the antibiotics of the selected culture *P. aeruginosa* was conducted. Selected culture of *P. aeruginosa* was sensible only to 3 from 12 investigated antibiotics, namely - to Gentamycin, Rifampicin and Tethraciclin. To Cefalecsin, Norflocsacin, Streptomycin, Canamycin, Fusidine, Oxacillin culture *P. aeruginosa* was resistant.

Taking into account that *P. aeruginosa* culture, isolated from technical water can be pathogenic, shows polyresistance to the antibiotics, a decision was taken to verificate ferrous capacity, where water was kept. With this aim it was taken decided to was determinate bactericidal action of desinfectants on bacterial suspension of *P. aeruginosa*. Isolate cultured from technical water was sensible in suspension with concentration 106 CFU/ml to all trained preparations. To it is Lysuformin marked to the middle level of sensitiveness. *P. aeruginosa* - on 9 day of cultivation the weak growth of culture was marked.

Thus For the practical use for sanitization of ferrous capacity, in which technical water is kept it is possible to recommend Chloramine, as most accessible that economic disinfectant.

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