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Cell therapy patients with cardiomyopathy

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Aim: To evaluate the efficacy of systemic allograft multipotent mesenchymal stromal cells (MMSC) for the treatment of dilated cardiomyopathy (DCMP) of viral origin.

Method: A group of patients (n=32) with DCMP after viral infection, aged 18 to 46 years under surveillance 24 months. One of the main factors for patient selection was a parameter of ejection fraction by echocardiography, which was less than 30%. All patients underwent ECG, biochemical blood tests, 6-minute walk test, tested by questionnaire - before to the injection, in 14 days after the initial injection, 1, 3, 6, 12, 24 months after the injection of MMSC. All procedures were carried out with the written informed consent of patients. The injection cells are characterized by the absence of contamination viruses, bacteria, fungi, viability of 97-100%, the expression of CD markers. The injection was carried out in the hospital after a few days of pharmacological correction of the general condition. All patients performed course injection MMSC. We have perfected an algorithm of the procedure. Allergic reactions, as the nearest and distant period, were not noted.

Results: During the observation period the mortality was the main group 9.4% in the control group, 37.5%. The estimate of the results of allogeneic MMSC in patients with DCMP showed an increase in life expectancy, increased EF, reduction of heart failure, reducing the number and duration of re-hospitalization, compared with the control group. The obtained positive results show the safety and efficacy of injection of allogeneic MMSC patients with DCMP after viral myocardial damage.

Biography

Denis Ivanov completed his MD and PhD from Medical Institute Tula State University. He has received many patents and scientific discovery. His is a Professor on Faculty of Biomedical Sciences Medical Institute, Tula State University and is serving as an Editorial Board Member of journal of *New Medical Technologies*.

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