KARIOTYP ANALYSIS OF MESENCHIMAL BONE MARROW STEM CELLS OF RABBITS BY DIFFERENT METHODS DISSOCIATION OF CELL MONOLAYERS AT EARLY CULTIVATION PASSAGE IN VITRO

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Conducted by us researches showed that in the culture of stem cells, obtained by the method of enzymatic dissociation of cell material much larger number of cells with chromosomal disorders apparatus quantitative nature (aneuploidy, polyploidy), compared to the culture stem cells obtained by the method dissociation of chelating cellular material. Especially clearly such quantitative disorders are manifested in cell culture III and V of passages. According to the analysis micronucleus test we installed, that in culture of stem cells obtained by the method of enzymatic dissociation, the number of cells with mutated significantly exceeded the level of spontaneous

mutagenesis, which is characteristic of mammals; in cell culture obtained by the method of chelating dissociation of cellular material, the number of such cells is less. Especially it concerns micronucleus and dual core cells.

The analysis of micro nuclear testing we have found that cell culture, which is subjected to enzymatic dissociation significantly exceeded the level of spontaneous mutagenesis characteristic of mammals compared to cell culture, which is subjected to dissociation tsiatsiyi chelating cellular material. Thus, the proportion of cells with micronuclei in the first passage by enzymatic dissociation was 9,0 ‰, which exceeded the level of spontaneous mutagenesis characteristic of mammals, 48%, whereas this rate chelating dissociation was normal. Also, we have noticed increasing the share of dual cells by enzymatic di- sotsiatsiyi in cell culture different from chelating dissociation. Thus, when the enzymatic dissociation of cell material fraction dual cell in the third and fifth passages amounted to 7,2- 8,2 ‰), which exceeded the level of spontaneous mutagenesis, which is typical of mammalian tion (5.4) whereas in cell culture, which is subjected to chelating
This dissociation rate was normal and consistent 3 - 4 ‰. Increased mitotic index in cell culture, which is subjected to enzymatic dissociation 11,0-15,2 ‰ at a rate of 2,9-4,1 ‰, obviously, shows well posyle- proliferation of individual clones cultivating cells. Mitotic index in cell culture, which is subjected to chelating dissociation does not exceed the level of spontaneous variability characteristic of mammals. This level of apoptotic cells was within normal limits in the first (rep dissociation enzyme) and second (chelating dissociation) series studies.

Key words: mesenchymal stem cells, cytogenetic analysis, micronucleus test, binucleated cells, cells with micronuclei, polyploidy, aneuploidy