

Delivery of cord blood cells modified with adenoviral vectors expressing GDNF into the area of spinal cord injury stimulates recovery of motor function and supports a population of glial cells

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Abstract

On the model of rat spinal cord dosed contusion at Th8 level studied the effect of delivery into the area of damage of glialcell- line-derived neurotrophic factor gene using adenovirustransduced of human umbilical cord blood mononuclear cells on motor recovery and maintaining a population of glial cells. The results show that the proposed method of gene-cell therapy can effectively stimulate the regeneration of posttraumatic spinal cord injury, which is manifested in the form of improved indicators of recovery of motor function, increasing the number of reactive astrocytes and oligodendrocytes progenitors. © Human stem cells institute, 2013.

Keywords

Adenoviral vector, Spinal cord injury, Umbilical cord blood cells