

论著

骨髓干细胞移植治疗不同年龄mdx鼠的疗效研究

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摘要 目的: 研究不同年龄的Duchenne型肌营养不良鼠 (mdx鼠) 与骨髓干细胞移植后缺失蛋白表达的关系。方法: 获取4-5周C57BL/6小鼠的骨髓干细胞, 体外培养3 d, 静脉移植到7Gy γ 射线预处理的6周龄、8周龄两组各6只mdx鼠。移植12周后, 对移植鼠骨骼肌dystrophin蛋白表达情况进行检测。结果: 6周龄、8周龄两组mdx鼠, 静脉移植 1.2×10^7 骨髓干细胞, 3个月后, 分别有16%和7%的骨骼肌纤维表达了dystrophin蛋白。结论: 静脉移植同种、同系鼠骨髓干细胞的mdx鼠, 3个月之后, 不同年龄mdx鼠骨骼肌细胞dystrophin蛋白表达的阳性率不同, 幼年鼠骨髓干细胞移植有较高比率的缺失蛋白表达。

关键词 [骨髓](#); [干细胞](#); [肌营养不良](#); [肌营养不良蛋白](#); [utrophin蛋白](#)

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Effect of bone marrow stem cell transplantation on mdx mice at different ages

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Abstract

AIM: To study the effect of bone marrow stem cell transplantation on mdx mice at different ages. METHODS: The bone marrow stem cells of C57BL/6 mice (4-to-weeks age) were cultured in vitro for 3 days, then injected intravenously into the 6-week and 8-week aged mdx, which were preconditioned with 7 Gy γ ray. 12 weeks after being transplanted, the mdx mice were studied for the dystrophin protein expression on the skeletal muscle membrane. RESULTS: Three months after transplanted with bone marrow stem cells, about 16% and 7% muscles cells in 6-week and 8-week mdx mice expressed dystrophin protein, respectively. CONCLUSION: 12 weeks after transplantation with bone marrow stem cells of homologous series mice, different amounts of dystrophin protein expressed on the membrane of skeletal muscle cells were observed in different aged mdx mice. Bone marrow stem cell transplantation show more benefic effect for younger mdx mice.

Key words [Bone marrow](#); [Stem cells](#) [Muscular dystrophies](#) [Dystrophin](#) [Utrophin protein](#)

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