



The Role of Stem Cell Therapy in Multiple Sclerosis: an Overview of the Current Status of the Clinical Studies

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Abstract

The complexity of multiple sclerosis (MS) and the incompetence of a large number of promise treatments in MS urge us to plan new and more effective therapeutic approaches that aim to suppress ongoing autoimmune responses and induction of local endogenous regeneration. Emerging data propose that hematopoietic, mesenchymal and neural stem cells have the potential to restore self-tolerance, to provide in situ immunomodulation and neuroprotection as well as to promote regeneration. Thus in this article we will first provide an overview of the cell sources for, proposed mechanisms that contribute to the beneficial effects of stem cell transplantation and the ideal route and/or timing of stem cell-based therapies for each main stem cell group. Finally, we provide an overview of the current status of stem cell researches in clinical trial stages in MS by comparable and healthy therapeutic effects of different stem cells therapy in MS patients.

Keywords: Cell therapy and transplantation, Hematopoietic stem cells, Mesenchymal stem cells, Neural stem/precursor cells, Stem cells.

Poster Presentation

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