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Oral Presentation

Advances in the Treatment and Limitations of Cell Therapy in Neurodegenerative Diseases

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Abstract

Neurodegenerative diseases are the hereditary and sporadic diseases which are characterized by progressive neuronal loss of the nervous system and are emerging as the leading cause of death, disabilities, and a socioeconomic burden due to an increase in life expectancy. There are many neurodegenerative diseases including Alzheimer's disease, Parkinson's, disease, amyotrophic lateral sclerosis, Huntington's disease, and multiple sclerosis but There are no effective treatments or cures to halt the progression of any of these diseases. Stem cell-based therapy has become the alternative option to treat neurodegenerative diseases. There are several types of stem cells utilized; 1- Embryonic s tem cells, induced pluripotent stem cells, and 2- Adult stem cell (mesenchymal stem cells and neural progenitor cells). In this review, we summarize recent advances in the treatments and the limitations of various stem cell technologies. So, we focus on clinical trials of stem cell therapies for major neurodegenerative diseases especially multiple sclerosis.

Keyword: Stem Cells, Neurodegenerative Diseases, Progressive Neuronal Loss

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