Clinical Profiles and Outcomes of Patients with Neurological Diseases Treated with Stem Cell Therapy: A Single-Center Experience in the Philippines

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Abstract

Background

Neurologic disorders such as Parkinson's disease, Alzheimer's, disease amyotrophic lateral sclerosis, multiple sclerosis, stroke, and spinal cord injury are caused by a neurodegenerative or neurologic cell injury processes. Stem cells offer the possibility of a renewable source of replacement cells and tissues as a form of innovative treatment in neuroregenerative medicine.

Objectives

This study aims to evaluate the clinical profile and outcomes of cellular therapy given to patients with neurologic disorders that will provide information with regards to the paucity of local data in stem cell therapy.

Methods

A retrospective review of the medical records of patients who underwent and completed cellular therapy were studied according to their clinical profiles and outcome in terms of functional status, subjective effects, and quality of life after the cellular therapy.

Results

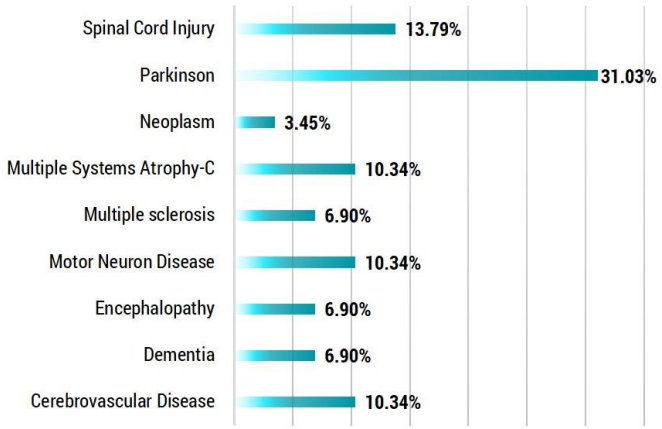
Among the 48 neurologic cases enrolled, only 29 have completed and were included in the study. Majority of the patients treated are under neurodegenerative diseases like Parkinson's disease and Alzheimer's disease. Most patients are of the aging population. Clinical outcomes show that functional status of pre and post treatment has no significant difference, however there are subjective reports of improvements among the disease categories on post-treatment. No significant adverse effects noted.

Conclusion

Cellular therapy is a regenerative treatment that is available and feasible locally in our country. Cellular therapy may provide some improvement with regards to the signs and symptoms and impact the quality of life in patients with neurological diseases.

Image

Percent categories of neurological diseases of patients with enrolled in the tertiary hospital who underwent and completed stem cell infusion protocol



Recent Publications (minimum 5)

1. Kim, Seung. Stem cell-based cell therapy in neurological diseases: A review.. Journal of Neuroscience ResearchVolume 87, Issue 10. 19 March 2009
2. R A Barker, M Jain,RJE Armstrong, M A Caldwell. Stem cells and neurological disease: The therapeutic implications and application of stem cells for the nervous system. 2013 Editorial.
3. Sanberg, Paul. Neurological disorders and the potential role for stem cells as a therapy.,* David J. Eve, L. Eduardo Cruz, and Cesar V. Borlongan British Medical Buletinl. 2012 Mar; 101(1): 163–181. doi: 10.1093/bmb/lds001
4. Lindvall, O. Zaal Kokaia & Alberto Martinez-Serrano. Stem cell therapy for human neurodegenerative disorders–how to make it work. Nature Medicinevolume 10, pagesS42–S50 (2004)
5. Cohen, M. PhD, Ralph J. Marino, MD. The tools of disability outcomes research functional status measures.December 2000Volume 81, Supplement 2, Pages S21–S29



Biography

Genica Maylem is a Neurology Resident in The Medical City, a JCI-accredited, tertiary hospital in the Philippines.

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Notes/Comments: