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Advancement in Healthcare A disease of the immune system, known as multiple sclerosis, affects the spinal cord and CNS. The disease wears the nerves and can affect multiple or separate parts of the body. The disease damages myelin sheath, which surrounds the nerve cells. Destruction of the myelin sheath interrupts nerve impulses, resulting to intense pain and incapacity to control movement. Patients diagnosed with this disease experience many inflammations that cause immune cells of the body to attack the nervous system (Rana, 2010).

Recently, there has emerged advancement in technology, which has brought remedy to patients having multiple sclerosis. The technology uses stem cells in the treatment of the disease. In patients, whose nerve cells have not been severely damaged, patients' own stem cells are used in treating the disease. Clinical trials in the field of medicine have used the stem cell technology where they remove patient's stem cells in the bone marrow, inject chemicals that destroy worn out immune cells, then re-inject the patient's body with the stem cells. This treatment has proved workable to the patients having the disease. In case, a patient does not recover there is an improvement from the deterioration of the disease (Rana, 2010).

Further studies have shown that adult stem cells taken from a patient's fatty tissue reduce clinical manifestation of multiple sclerosis process. Use of mesenchymal stem cells have an impact of reducing or stopping immune activation of cells, and usually targets particular areas where tissue damage has occurred (Rana, 2010). The stem cell technology in treating multiple sclerosis is designed in a way that resets the immune system functioning and focuses on slowing or reversing early diagnosis of the disease. In

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addition, new stem cell technologies that will include therapies in treating multiple sclerosis are being developed.

References

Rana, Shumaela (2010). Advancements in Stem Cell Research and Multiple Sclerosis Treatments. New York: Ezine publishers.