

Adult stem cell and natural healing process

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Adult stem cell therapy has gained popularity in developed countries as an alternative to the conventional treatment of many diseases. There are several studies and clinical trials conducted in the United States to support this.

Medicine is evolving to a more natural and more effective means with the use of stem cells. Due to the numerous religious and ethical issues that come with the use of embryonic stem cells, today's medicine is moving towards the application of adult stem cell therapy. This piece highlights some new applications of adult stem cells in conditions and diseases that have posed a problem in our society for far too long.

Tissue-based treatment is already evident in the United States. In 2012, a patient was successfully cured of sickle cell disease after receiving a chemotherapy-free stem cell transplant. Additional patients have been successfully treated since then. Two studies conducted in 2014 and 2015 have shown that the use of adult stem cell therapy can greatly reduce complications or even stop the progression of the diseases by providing stem cells to the needed areas. This reduces the need for surgeries for many of these patients. According to International Diabetes Federation (IDF), there were over 40,000 deaths due to diabetes documented in Nigeria in 2015. Treatment for diabetes has been a focal point for medical research for many years. Consequently, some studies and clinical trials conducted have shown that Adult Adipose (fat) Stem Cell Transplantation can lower and regulate sugar levels resulting in reducing or eliminating the amount of medication or insulin that patients need to take. In a recently conducted clinical trial, some of the patients achieved insulin independence that remained stable for a median time of 29 months, and another patient for 43 months ongoing. In fact, all the patients studied showed substantial improvement in their dependence on insulin and overall diabetic condition.

Adult stem cells transplantation has also been studied in arthritis, and there has been some positive reports about its efficacy. In 2014, the effects of stem cells for articular cartilage regeneration was studied. They studied the effect of stem cells injection in treating osteoarthritis of the knee, and the results showed significant improvement. The usefulness of stem cell therapy in neurological disorders like Multiple Sclerosis, Cerebral Palsy, Spinal Cord Injury, etc. has been shown in different studies and clinical trials. The prognosis for spinal cord injuries is generally believed to be poor. However, recent researches and case studies are changing this ideology as the value of adult stem cell therapy for patients with spinal cord injuries is emerging. An example of this can be seen in a case study published in 2015. In this case study, a patient with functional loss below the lesion level due to a motor vehicle accident failed standard therapy but saw clinically meaningful improvements after multiple adult stem cell treatments. Stem cell transplantations over a period of months led to the restoration of the patient's ability to move lower extremities against gravity, control the body trunk, and the ability to control the

bladder. The patient was also able to stand as well as walk with the aid of hip and knee orthoses. The sensation level also increased. Regenerative medicine involving adult stem cells is continually being studied and researched to gather more evidence to enable harnessing its' clinical potentials. The use of adult stem cells for clinical therapy is now a reality for many patients who were not able to shed the yoke of many diseases that conventional medicine provided very little hope of permanent relief for.