

Stem cell hope for Parry-Romberg syndrome patients

31 August 2012 | News | By BioSpectrum Bureau

Stem cells bring new hope for Parry-Romberg syndrome patients



Singapore: Scientists of the RNL Stem Cell Technology Institute, Korea, transplanted own stem cells of patients suffering from Parry-Romberg syndrome, thus dramatically improving the ability of doctors to treat the disease. The ground breaking study was published in the international plastic surgery journal *Annals of Plastic Surgery*.

The prognosis of the syndrome without treatment, is the slow loss of control, followed by paralysis of the face and in some cases the mouth and even eyes. Most patients with Parry-Romberg begin to experience these symptoms between the age of five and 15. No cure for the syndrome has been developed until date and the treatments usually involve waiting until the disease slows and then transplanting fat into the patients' faces, strengthening bones in their faces, and using microvascular surgery to install a free flap of skin. However, the only solution for patients with this disorder and those with similar disorders,

which is the grafting of fat, is at best a temporary solution that does not alleviate the pain felt by these patients and can in fact result in an increase in pain when fat grafts fail.

The controlled study, conducted by Dr Kyeung-Suk Ko and Dr Jong-Woo Choi and led by Dr Jeong-chan Ra of RNL Stem Cell Technology Institute, painlessly removed a few ounces of fat from one group Parry-Romberg Syndrome patients, harvesting stem cells from these patients' fat. Patients in the "treated" group received stem cells magnified into the millions, using the team's patented technology. These patients' outcomes, adding stem cells to standard-of-care therapies, were measured against traditional microfat grafts in the control group receiving no stem cells.

In what many have described as a revolutionary finding, the team found that those patients who received their own "adult" mesenchymal stem cells saw unprecedented improvement in the effectiveness of therapies. Fat grafts that are often "resorbed" into patients' skin shortly after they are placed were 50 percent less likely to disappear when provided alongside stem cells.

Dr Ra, said that, "We believe that this is a big step for Parry-Romberg Syndrome patients and expect to see autologous stem cell transplantation as standard of care for their treatment. The next step is to test the efficacy of the many ways in which stem cells from adults' own bodies will expand the quality of life and even identify cures for many rare diseases."