Stem Cells bring back vision to NRI

~ Stem cells comes to rescue after all hopes of restoring vision have been given up~

Chennai, March 15, 2011: The potential of stem cells is almost infinity in its scale. The capacity for stem cells to transform into whatever the body needs, to regenerate itself, could in the future have the potential to make the blind see, the crippled walk and the dear hear. Stem cells provide hope that this dream would become reality.

Towards building the future roads of reality for stem cell therapy, a group of doctors performed a special procedure on a NRI student who is said to have almost lost his vision due to accidental consumption of methanol.

Mr Shailesh *(name changed on request)*, the 22 year old, US based NRI experienced sudden loss of visual acuity a couple of months back. He had only perception to light in one eye and bare hand movements in other eye. He was diagnosed with vision loss caused due to accidental consumption of methanol. Further diagnosis and treatments revealed that the blindness is irreversible and despite intensive treatment with high dose steroids the condition continued to deteriorate possibly due to ganglional cell death/apoptosis as the reports say.

Methanol has a high toxicity in humans. If ingested, as little as 10 mL can cause permanent blindness by destruction of the optic nerve and 30 mL is potentially fatal. Investigations and reports of his treatment confirmed that there were no possibilities to restore the deteriorating vision.

Having heard about the potential of stem cells and its ability in restoring functions of cells & organs, Shailesh wanted to explore its possibility as the only and final possibility to salvage his vision. He visited India and approached Dr. Himanshu Bansal, Stem cell therapist through Care Medical Tourism. Dr Himanshu examined the patient and was optimistic about the possibility of Autologous Bone marrow derived adult stem cells. Considering the condition of the vision, the patient's age and vulnerability to the disorder, Dr Himanshu recommended stem cell therapy on compassionate grounds. Mr Shailesh was explained in detail about the pros and cons of the therapy and patient himself being a medical student gave his informed consent to the procedure.

Mr Shailesh was admitted for the procedure on 24th February, 2011 at Laksha Hospital, Chennai. Before the procedure he had visual acuity in terms of perception to light only and some blurred movements. The course was stationary.

During the procedure the doctors aspirated about 120ml of Autologous Bone marrow from Iiliac crest and concentrated to 20ml. Stem cells from the Bone Marrow were processed using LifeCell's SmartPReP Ultracentrifuge – the latest device from Harvest Technology, USA for rapid preparation of stem cells intra-operatively.

After first shot containing Bone marrow aspirated Mono Nuclear Cells of about 376*10^6 (36 Million cells) in to the retro bulbar space around the optic nerve, a week after the procedure, Shailesh started showing improvement in terms of differentiating colors and gradually recognizing objects. He is happy that he is even able to read with glasses. The Ophthalmologist who examined the patient reported visual acuity to be 6/9, whereas only PL (perception of Light) was positive earlier.

Talking to the media, an emotionally moved **Shailesh,** excitedly voiced to have a largely improved vision after the stem cell therapy. *"I'm delighted to see a whole new world with the help of stem cells. I cannot imagine a life without vision and my life would have come to an end at 22 years if not for stem cells. As a medical student I would dedicate my career in promoting awareness of stem cells and I'm confident that this technology can provide cure for many diseases"* he said.

Talking to the media **Dr Himanshu, Institute of Spinal Injury & Stem Cell Research**, Rudrapur said *"Stem cells are the future of medicine. We need to step-up clinical trials and compassionate treatments to explore the possibilities of stem cell therapy. In this case, we had no other option to restore vision or even control vision loss. Hence we had resorted to stem cell therapy as the only option on compassionate grounds. I'm extremely happy stem cells have helped us in restoring his vision. I'm sure this case would feed clinicians and researchers sufficient inputs to explore more applications of stem cells in ophthalmic specialty"*

LifeCell International, India's premier stem cell solutions provider, provided their latest technology SmartPReP Ultracentrifuge from Harvest Technology, USA for this procedure. This system is used for rapid preparation of stem cells intra-operatively and facilitates instantaneous processing of the bone marrow aspirate which helps in injecting the cells freshly within fifteen minutes of preparation. Hence it ensures that the quality of cells being injected is very high without loss of ability, potential or fitness that may arise due to process delay.

LifeCell International brought the BMAC technology to India in 2009. SMartPReP marrow concentrate system is USFDA and CE approved system, registered with DCGI, India and this biological technology improves surgical outcomes. It is the first and only technology that makes possible the use of a clinically effective quantity of cellular compositions from a small aspirate of autologous bone marrow, which includes a large quantity of adult stem cells, derived from a patient at point-of care in just 15 minutes.

About Dr. Himanshu Bansal: Dr Himanshu Bansal, Scientist - Stem Cell Therapy, Institute of Spinal Injury & Stem Cell Research, Rudrapur is a stem cell therapy and transplant specialist. He offers comprehensive treatment with autologous tissue like BM stem cells and is actively involved in treatment of autologous bone marrow derived stem cells for various disorders. He is involved in phase 1 trial with technique of scar reduction and olfactory tissue derived stem cells transplantation. He has also been conducting an approved trial involving 100 patients in "An Open label, randomized, multi-centric, prospective clinical study to determine the safety and therapeutic effectiveness of Bone Marrow derived adult stem cells via multiple routes of administration in the treatment of patients with complete spinal cord injury. He has also presented papers on "Application of stem cell therapy in orthopedic and spinal cord disorders" and is focused on working closely in stem cell domain.

About BMAC Technology: LifeCell International in association with Harvest technologies brought the BMAC technology to India in 2009. SMartPReP marrow concentrate system is a USFDA and CE approved biological technology that improves surgical outcomes. It is the first and only technology that makes possible the use of a clinically effective quantity of cellular compositions from a small aspirate of autologous bone marrow, which includes a large quantity of adult stem cells, derived from a patient at point-of care in just 15 minutes.

Important: The beneficiary patient has requested to mask his identity from public in all forms across all communication, photographs and video clippings and has requested a non-disclosure consent from media who attend the press meet and/or cover this case study. Hence to maintain his personal privacy media is hereby suggested to adhere to his request.

Contacts for media enquiries and further information

Dr Himanshu Bansal
Handphone: 09045606498
bansal.drhimanshu@gmail.com

Neha / Ritu, Hanmer MS&L
Handphone: 9840246513 / 9884173290
nehadamani@hanmermsl.com OR ritu@hanmermsl.com