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चमत्कार...: डेढ़ साल पहले हादसे में दिमाग का नब्बे फीसदी हिस्सा हो गया था डेमेज, स्टेम सेल थेरेपी से नॉर्मल होने की उम्मीद

विनोद के लिए वरदान बनी स्टेम सेल थेरेपी

प्रवेश सिंह || नोएडा

पुणे के रहने वाले विनोद चौधरी (25) का करीब डेढ़ साल पहले एक्सिडेंट हो गया था। हादसे में सीवियर हेड इंजरी होने की वजह से उनके पुणे व मुंबई में कई ऑपरेशन किए गए। तीन महीने आईसीयू में रहने और डॉक्टरों के तमाम प्रयासों के बाद उन्हें बचा तो लिया गया, लेकिन उनके दिमाग का 90 फीसदी हिस्सा डेमेज हो चुका था। टीबीआई (ट्रॉमेटिक ब्रेन इंजरी) के इस मरीज को डॉक्टरों को भी और ज्यादा ठीक होने की उम्मीद नहीं थी। विनोद की हालत कोमा के मरीज जैसी हो गई

थी। उनके दिमाग की 90 फीसद सेल्स डेमेज हो चुकी थीं। करीब 3 महीने पहले उनका स्टेम सेल से ट्रीटमेंट शुरू किया गया। शनिवार को अपोलो अस्पताल में उन्हें चौथी बार स्टेम सेल थेरेपी दी गई। स्टेम सेल से मरीज की हालत में 50 फीसद तक सुधार हो चुका है। विनोद का इलाज करने वाले डॉक्टर हिमांशु बंसल ने बताया कि रिजल्ट बहुत अच्छे आया है और मरीज के नॉर्मल होने की उम्मीद बंध रही है। डॉक्टर ने बताया कि स्टेम सेल से सीवियर न्यूरोलॉजिकल डिसऑर्डर का यह देश का पहला मामला है। इंडिया में अब यह तकनीक रिसर्च और रेअर केस



तक ही सीमित है। रेअर केस में भी ब्रेन डेड के मरीज के ठीक होने का यह पहला मामला है।

डॉ. हिमांशु ने बताया कि स्टेम सेल

ब्रेन डेड के करीब पहुंच चुके मरीज की हालत में 50 प्रतिशत हुआ सुधार

से मरीज का इलाज करने की तकनीक इंडिया में कुछ साल पहले ही लॉन्च हुई है। अभी देश के गिने-चुने अस्पतालों ने ही इसे अडोप्ट किया है। इंडिया में इस तरह के मरीज के इलाज और ठीक होने का कोई मामला सामने नहीं आया है। इंडिया में अभी

शुरूआती स्टेज में इलाज हो रहा है। इसे लिंब, लीवर, किडनी व अन्य कुछ इलाजों के लिए इस्तेमाल किया जा रहा है। उन्होंने बताया कि इंटरनेट के माध्यम से मरीज के परिजनों ने उनसे कॉन्टैक्ट किया था। उसके बाद मरीज का इलाज शुरू किया गया। 3 महीने पहले जब मरीज उनके संपर्क में आया तो उनके लिए भी यह केस एक रिसर्च केस की तरह था। उन्होंने यूरोप व जर्मनी में स्थित मदर सेल से जुड़े अपने कुछ डॉक्टर साथियों से केस डिस्कस किया और इलाज शुरू किया। मरीज को रेड्रो बल्बर, इंद्रा थीकल व नर्व के माध्यम से स्टेम सेल दिमाग तक पहुंचाई गई।

The first successful noninvasive stem cell therapy for traumatic brain injury in the country conducted by Dr Himanshu Bansal and Colleagues at Apollo Hospital

There has been a pressing need to help the rising number of people who were disabled following road accidents. Most of the people who manage to escape from the death after a road accident find great difficulty in leading a normal life as their neurological functions get disturbed to an extent. According to Institute of Road Traffic Education the numbers of these are mind boggling. About 1.4 Million people in India face road accidents out of which 40% die and the other 60% are left with serious injuries most of them which are related to head. Till now there wasn't a treatment which could claim its ability to address these concerns. Stem Cells transplant have raised a hope for the millions who are left with the aftermath of these accidents.

A Man, suffering from severe disability for the past one and half year following an accident, has successfully underwent noninvasive autologous stem cell transplantation, the first successful such case reported from North India. The patient was suffering from altered sensorium, bed ridden with complete visual

loss, severe cognitive dysfunction and lack of movement in limbs. Following the Stem Cell Treatment he has now regained full consciousness, reasonable memory, communication abilities and purposive movements in limbs.

Vinod Choudhary hailing from Pune had a road accident in 2012 and suffered severe brain injury. He was admitted at a prestigious hospital of the country in Pune and was on ventilator with tracheostomy. Doctors gave him only guarded prognosis even for survival and he remained unconscious for three months in hospital and underwent two neurosurgical procedures.

He had marginal recovery so much so that he was now in altered sensorium, Ryle's Tube feeding, urinary catheter, no useful limb movements and no verbal response. He had no vision, hearing or speech. The patient needed to be assisted in his or her daily activities. Patient did not show any improvement despite all available treatment in the last one year and ultimately the possibility of stem cell therapy was considered after discussions with her family.

Parents had no hope of getting him back after the fatal injury. Also they were unsure of the effects of the therapy but left without any option they had to take a chance.

For nearly five years, Dr Himanshu Bansal consultant regenerative medicine at Mother cell and Revita life sciences has been involved in stem cell research for neurodegenerative disorders and spinal cord injury and over the years safety standards for stem cell treatment for neurological diseases have been well established. With long clinical experience and relevant review of literature and exposure of clinical use of stem cells worldwide in cases like these, Dr Bansal finally decided to give a trial on compassionate grounds.

Previous research has shown clearly that stem cell transplantation both prevents further axonal injury and promotes axonal regrowth, as well themselves develop into neurons through a number molecular mechanisms. Many studies have also shown Implanted stem cells have substantially improved cerebral function with brain trauma

Approximately 240 ml of bone marrow is harvested from iliac crest. Bone marrow is processed in a closed system for volume reduction. Volume reduced sample is processed to have rich 5ml fraction of Mononuclear cells (Haemopoetic stem cells and mesenchymal stem cells and endothelial progenitor cells) and adjoining

supernatant plasma which is rich in platelets and growth factors . The sample is further processed to recover lost VSELS. (Very small embryonic like stem cells) the most useful and powerful cells. 0.5 ml of this end product is sent to the lab for expansion of mesenchymal cells in human grade media at 4 degree Celsius.

These cells were injected on the monthly basis by retrobulbar /intrathecal and intrarterial route on 6 monthly basis

Support therapy in terms of Ayurveda and supplements of Vitamin B1 and Vitamin B12, Vit B3 nicotinic acid were also started along with Vigorous rehabilitation and intensive physiotherapy.

After third treatment sitting, patient started showing improvement in his brain functions became oriented, gradually able to recognize family and friends and started moving his hands and legs purposefully. By 5th month patient started showing considerable improvement, started verbalizing , was able to communicate with parents and able to walk with support. He could perform though semi assisted activities of Daily living, his memory recovered significantly. Vision improved to finger counting in right eye and good perception of light in left eye by 6th month. It may take her a couple of months to be more active.

Stem cell therapy was one of the means to face the situation. The belief that brain injuries aren't curable has been proved wrong. The need to help accident victims led us to work on compassionate grounds for the option of stem cell therapy.

This is an eye opener that there is a possibility of reactivating brain cells following injury with very gratifying clinical results. To our knowledge few attempts like this have been made across the world. This is the first reported successful case from India.

However, a lot more need to be understood about stem cell therapy in head injuries including the time of intervention and quantity of cells to be used depending upon the injury. "We're planning to carry out a pilot study in treating head injuries with stem cells.