

India's first successful therapy for Spinal Cord Injury



Mr. Akbar Ali in the press meet (In the centre with blue tops and pyjama) flanked by (From L>R) Dr JS Rajkum (Chairman Life Line Hospital), Dr Narayanan (Neurosurgeon), Dr Ravikumar (Stem Cell Project Coordinator), Baskaran (CEO, Life Line) Mr Yuji Okada (Consul, Consulate of Japan, Chennai), Dr Samuel JK Abraham (NCRM)

A 25 year old Akbar ali, who sustained an injury to his spinal cord on the 12th of October 2006 at a construction site in Abhudabi following a fall from 12 mts, lost sensation and activity of the lower half of his body. He was treated surgically in which the bones of the vertebral column within which the spinal cord is situated were fixed using metal plates and screws after which he was on a wheel chair without any control over his bladder and bowels. The sensation and activity also didn't improve much. He arrived back in India on a wheel chair in the first week of December 2006.

Incidentally when he got admitted to the Life Line Hospital, Chennai, for a reparative surgery to correct the bowel sphincter. Immediately his case was considered for the stem cell therapy as the time elapsed from the accident until then was very short (10 weeks)

On the 22nd of December, under general anaesthesia, 100ml of his bone marrow was taken from his Iliac bone and the stem cells were isolated and processed at NCRM as per the technology given by Dr Terunuma Hiroshi Biotherapy Institute, Tokyo, Japan. The isolated cells ready for injection were then injected into the space around the injured site of the spinal cord.

Mr Ali, who was on a continuous drainage of urine from bladder, started feeling some sensation of the catheter as a foreign body and asked the physician to remove the same. Simultaneously he started feeling sensation in the leg and foot and in 4 weeks time from the injection and then he could stand on his own. Now 2 months from then, he is able to withhold the urine for up to 2 Hrs and also able to stand on his own and walk without any one's help. The coordination of the legs while walking are normal.

Objective evaluation has shown his motor power has improved to level 4 (Level 5 is normal) and sensation and motor activity of the urinary bladder as well by appropriate tests.