

MS patient's stem cells check disease

Treatment Was Carried Out For First Time At Sion Hospital

Malathy Iyer | TNN

Mumbai: If 30-year-old Tejaswini Sane's parents and grandparents are doubling up as her cheerleaders, it is with good reason. Rendered immobile by multiple sclerosis (MS), a severely debilitating neurological disease, for a better part of the last decade, Tejaswini is finally able to perform simple tasks on her own. Now, she can pick up a glass of water, turn in the bed and answer the phone.

What has brought about the change in Tejaswini is stem cell therapy, which was performed for the first time on her at Sion Hospital. Six months ago, Tejaswini took her first shot of stem cells, and since then, her speech has since been less coarse and her arms have some power, claim her parents. "She can hold a glass of water and drink from it. She also has some sensation in her legs," said Dr Alok Sharma, head of the neurosurgery department, Sion Hospital, who has been treating Tejaswini. She took her second shot on May 1.

If Tejaswini's progress, as well as the recent findings of a study in Northwestern University in Chicago, is any indication, the 2.5-million-patient pool can be hopeful about stem cells, say doctors.

A resident of Pune, Tejaswini's trauma began in 1999. "I would keep falling and also suffered from double vision," she said. Doctors diagnosed her with MS, but what devastated the new bride was the pace at which the disease progressed. "I also had difficulty with bladder control. By 2005, I was bound to a wheelchair," she said. She became bed-ridden in 2007. "I could not talk clearly. There were phases when I knew what I had to say, but the words wouldn't come out."

It was around this time that her granduncle S D Kulkarni read about the stem cell therapy offered at Sion Hospital. "For over a year, I kept meeting Dr Sharma, pleading for Tejaswini," said Kulkarni, a Charkop resident

Sharma, who has been using stem cell therapy for patients suffering from spinal cord injuries for the last 18 months, admitted he was initially reluctant. "We practise evidence-based medicine, and there was no evidence that stem cell worked for MS. By end of 2008, articles in international journals reported the beneficial effects of stem cells in MS. We were also getting good results in our spinal injury patients. That is when we decided to treat MS," he said.

Dr Praveena Shah, neurologist with Wockhardt Hospital in Mulund, said that better

diagnostic facilities are also allowing for early detection of MS. “We are now seeing an increase in the number of patients,” says Shah.

There are many who advise caution. Sheela Chitnis of the Multiple Sclerosis Society of India said, “It’s early days yet for stem cell research.” One MS patient described how the stem cell therapy she underwent in China had, in fact, worsened her plight. “While we cannot compare one case of MS with another, we don’t advise people to chase stem cell dreams in South Korea and China,” said Chitnis.

But there’s no denying that Tejaswini has benefitted from the treatment. As Dr Sharma points out, “the treatment has no doubt improved her quality of life”.

A DEBILITATING ILLNESS

What is Multiple Sclerosis?

Multiple Sclerosis (MS) is a disease of the nervous system that affects the brain and spinal cord. It damages the myelin sheath — the material that surrounds and protects the nerve cells. The damage slows down or blocks messages between the brain and the rest of the body. Usually, the disease is mild, but in extreme cases, people lose the ability to write, speak or walk. Symptoms include: Visual disturbances Muscle weakness Trouble with coordination and balance

Sensations such as numbness & prickling

Thinking and memory problems

CAUSES | No one knows what causes MS. It may be an autoimmune disease, which occurs when the body attacks itself. Scientists say that after a certain type of viral infection, the immune system starts attacking the myelin as if it were the virus

TREATMENT

There is no cure for MS, but medicines may slow it down

Special chemicals — Beta interferons — that help regulate the immune system can be used to treat MS. Sideeffects include cold, depression and increased spasticity

Physical and occupational therapy also helps

Novantrone, an anti-cancer drug that weakens the immune system, helps reduce symptoms. As it can affect the heart, it’s not continued for long

Steroids help decrease the severity of an attack

Two studies have reported some degree of success by using the patient’s own stem cells



A FIRST FOR MUMBAI A DOSE OF HOPE Tejaswini Sane (left) who was rendered immobile by MS, says the stem cell treatment “is nothing short of a miracle” Sion Hospital is using the patient’s stem cells to alleviate MS symptoms. According to Dr Prerna Badhe, consultant neuropathologist, Sion Hospital, stem cells release growth factors that stimulate the proliferation and differentiation of existing oligodendroglial stem cells (which are responsible for myelin production). They remove damaged myelin debris & ease MS inflammation, which would otherwise inhibit growth of local stem cells

