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CURE CARE COMPASSION

# Press Release

## FIRST TIME IN INDIA - A NEW RAY OF HOPE TO CURE SPINAL INJURIES- Epidural Stimulation



16th Jan 2019 – Most of the time patients who suffer from spinal injury they were told to spend their lives in a wheelchair. But now epidural stimulation has found a new ray of hope for these patients. Md Amil, 24 years from Bahruch, Gujarat, who lost the use of legs nearly 5 years ago after an unfortunate motorcycle accident and spinal cord injury at Dorsal spine D10-11. But now he can take few steps. After all attempts at rehabilitation he agreed to undergo for the spinal cord stimulation. His Epidural stimulation & rehabilitation program was started on 6th March 2018. Amil is the first of many patients who have benefited from the first wave of the treatment. He has been undergoing epidural stimulation and physiotherapy for over 9 months now and the results have finally started.

Amil can now walk up to 20-25 paces when his implant is turned on and this is the first time that this has been recorded in a complete spinal cord injury. *"I came with relatively no hope as nothing had worked so far, but just after one meeting with Dr. Sachin and his team, the desperation turned into hope for the first time in many years". To me it means a lot. I'm surprised at what we have been able to do. I think you've got to try the impossible to make the possible. It's a lot of fun - it feels really good," says Amil.*

The doctors team led by Dr. Sachin Kandhari, Neurosurgeon at Institute of Brain & Spine, New Delhi, who implanted the device to relieve the patient of the debilitating neuropathic pain hope that this unexpected bonus will enable many paralyzed people ultimately to regain independent movement.

Institute of Brain & Spine Hospital, has performed several stimulation surgeries in last 9 months and this achievement is first of its kind in India. It has restored faith in various similar recent programs being conducted worldwide to restore motion in partially or completely paralyzed patients by applying continuous electrical stimulation to the spinal cord. **Says Dr Sachin Kandhari, Sr Neurosurgeon & MD IBS Hospitals.**

Sandeep, a 25-year-old man from Haryana, he is a student and a cricket follower who loved being out in the field, but one day his life changed for worse. He was accidentally hit by bullet in his spine and got paralyzed from the chest down. He joined Epidural Stimulation program and on 15th July, 2018, after which he underwent for the surgery on 17th July, 2018. He has shown tremendous fight and is taking first of many steps towards being completely independent once again, with the help of a specially adapted walker. He says standing on his own after a long time, was "the most amazing feeling".

He can now voluntarily move his toes, hips, knees and ankles, walk on a treadmill and walk while being supported with the assistance of walker.

Epidural Stimulation can be offered to patients with both incomplete and complete injuries. A combination of the Epidural Stimulation implant with modern rehabilitation therapies undeniably create the most powerful treatment package for Spinal Cord Injury survivors. Though the therapy is new but has been proved reliable enough to be used as a first concrete step towards cure of spinal cord injury, **Says Dr. Sachin Kandhari, Sr Neurosurgeon & MD IBS Hospitals.**

### Spinal cord injury

Spinal cord is a bundle of nerves and other tissues that the vertebrae of the spine contains and protects. A physical injury leading to the damage of the bony protection around the cord often leads to varying level of permanent damage, resulting in the paralysis of the body served by the spinal cord below the level of the injury. The symptoms include- loss of muscle function, sensation or autonomic function.

### No cure for complete cord injury.

Unfortunately, so far there has been no

way to reverse the damage caused to the spinal cord. A lot of research has been going on to develop new treatments, prosthesis and medications that may promote nerve cell regeneration or improve the function of the nerves that remain after spinal cord injury. However, none of the treatments have been successful so far except epidural stimulation, which has shown tremendous potential.

### What is Epidural Stimulation.

Epidural Stimulation is a treatment for Spinal Cord Injury which is centred around an implantable device. The surgically implanted device sits over the spinal cord protective coating and is connected to the nerve systems where it is able to stimulate locomotor-like activity. Once implanted, the patient learns how to control the device and the resulting limb movements.

The implant sends bursts of targeted stimulation to the muscles that intend to move. In effect, the stimulation occurs on an as needed basis, roughly mimicking the body's own signaling mechanism. The doctors at Institute of Brain & Spine, New Delhi speculate that some nerve cells are being reactivated or maybe more of them are being created allowed signals from the brain to pass down the spinal cord eventually helping to restore walking ability.