Kochi: Providing a great relief to the numerous desperate Parkinson patients and their families, a surgical procedure of Deep Brain Stimulation (DBS) was done at Aster Medcity last week. A 58 year old man with advanced Parkinson’s disease (PD) for the last 15 years underwent this procedure. This gregarious and socially active man had noticed a gradual reduction in medicine response and disabling drug induced side effects. He also had severe difficulty in carrying out his daily activities.

The DBS procedure involves the accurate placement of two fine electrodes into a deep structure in the brain called the sub thalamic nucleus. This implantation is guided by recording the electrical activity of the cells of the brain, a process called micro electrode recording and by a detailed clinical assessment for beneficial effects and side effects during the surgery. The patient is awake during this part of the procedure and is able cooperate with the neurologist and is also able to feel the benefit as the stimulation is performed. The electrodes are connected to a small pacemaker like device implanted in the chest wall, which delivers the stimulus to the nuclei in the brain through the electrodes implanted within. The device is programmable, in that the stimulation parameters can be adjusted externally by the neurologist to give the patient the greatest possible improvement. The patient who underwent this procedure at Aster Medcity was discharged after the surgery, with a significant improvement in performance and a reduction in the dose of the medicines he was taking. The surgery lasted for a few hours and he was in hospital for 3-4 days. The programming will continue over the next few weeks as an outpatient till an optimal result is achieved.

DBS dramatically changes life of Parkinson patients. Initially it was offered to patients only in the late stages of PD after many years of disease duration. Nowadays, results show that DBS in the first 4 -5 years after the onset of illness and in younger patients may offer even greater benefit.

This is the first time a DBS is being done in Kochi. The only other centre in Kerala that presently offers surgery for PD is SCTIMST, Trivandrum.

The team of doctors involved in the DBS procedure included Dr.Dilip Panikar (Neurosurgery), Dr. Boby Varkey Maramattom (Neurology), Dr.Sujith O.K. (Neurology) and Dr Jithendra (Anesthesia)
**About Parkinson Disease**

Parkinson disease is a disabling progressive neurodegenerative disease that affects millions of people. It is caused by a deficiency of dopamine in certain areas in the brain and commonly leads to tremors of limbs, slowness of movements, rigidity and stiffness of limbs and difficulty in walking. It has a silent preclinical phase and then gradually and inexorably progresses.

Till now only medications have been extensively used in most Indian patients. However as the disease progresses, the effects of medicines diminish and side effects become more persistent and disabling. The most effective medications are levodopa and dopamine agonists. A particular problem after some years of medications is the appearance of involuntary excessive and disabling movements. These movements called dyskinesias start affecting nearly 50% of PD patients after 4-5 years of therapy and make life increasingly difficult. On one hand, as the disease progresses, more and more medications are required and on the other hand, medications themselves worsen dyskinesias. It is at this point that we can offer Deep brain stimulation (DBS). DBS is a revolutionary procedure that has been around for some years now in the West. In India, it is available only in a few centers. It dramatically improves the quality of life in PD patients.

PD affects one in 500 people worldwide, affecting men more than women, although the exact reason remains unknown.