The Great Neurosurgeon and Spinal Surgery—
Jacob Chandy

Jacob Chandy who pioneered neurosurgery in India at the Christian Medical College, Vellore, started the Department of Neurological Sciences in 1949. His enterprise, dedication and perseverance led to the department at Vellore becoming the beacon for others to follow in many parts of our country and abroad. His vision that all specialties including the basic neurosciences should work together allowed clinical and basic research to go hand in hand with mutual benefit.

Neurosurgery was in its nascent stage but his emphasis on training graduates from other parts of the country right from the start enabled neurosurgery to develop throughout the length and breadth of the country. In his own department, he produced two of the finest neurosurgeons, India has known in Professor KV Mathai and Jacob Abraham who with Jacob Chandy undertook the responsibility to start every possible aspect of neurosurgery available at that time anywhere in the world. Brain surgery for tumors, vascular malformations, infections, pediatric neurosurgery, spine surgery, epilepsy surgery and stereotaxic surgery was started and developed in quick succession.

Spine surgery was started with equal vigor as orthopedic surgeons at that time did not tackle spinal problems. Disk surgery for lumbar disk prolapse, cervical laminectomy for spondylotic myelopathy coupled with foraminotomy if radicular symptoms existed and lumbar laminectomy for canal stenosis became routine. Even without the availability of the microscope intradural spinal cord tumors were excised with remarkable results. The challenge at the time were the craniovertebral junction anomalies for which decompression of the foramen magnum and grafting with iliac bone struts under skull traction was performed. The patients were then immobilized in a plaster of Paris (POP) cast which exposed only the eyes, nose and mouth which could be opened just enough for food or water to be introduced, with the neck and upper part of chest being totally covered by the cast. The patient had to sit on a stool while the plaster cast was being put with the skull traction rope hung over the nearest curtain rod. Needless to say the poor victim had to sit till the cast dried with pedestal fans focused on him and an over enthusiastic registrar left him sitting overnight only to see that the poor man had developed a pressure sore on his behind. Lumbar spondylolsthesis was treated with decompressive laminectomy, using iliac bone for the H-graft, also to be followed by a plaster cast enveloping the back and the abdomen. Thankfully in a few years time the POP cast was replaced by the alkathene shell.

The other frequently encountered problem was that of tuberculous infection of the spine. Tuberculous osteomyelitis of the spine and psoas abscess with resulting paraplegia was common. Costotransversectomy with curetting out of the deceased bone, letting out the pus and using the rib for graft was a common practice. During that period the thoracic surgeons, help was sought for exposing the vertebra through the posterior route after excising one or two ribs. If there was a total collapse a transthoracic approach with the thoracic surgeons was the order of the day. Syringomyelia was tackled by decompressing the cyst, placing syringe-subarachnoid shunts, and even with omentum being mobilized subcutaneously to be inserted into the cavity which was undertaken none other than by the ‘never say die’ neurosurgeon Professor Jacob Abraham.

The interest in spinal surgery of the orthopedic surgeons in the West infected our orthopedic surgeons of Vellore also, which resulted in our training them to operate on the spine with a little less force than used for intramedullary nailing. The result was, slowly a breed of spinal surgeons emerged with plates and screws.

Thanks to the pioneering work of Jacob Chandy and the outstanding contribution of his protégé Professors Mathai and Jacob Abraham that the next generation of neurosurgeons in Vellore was able to develop micro-neurosurgery for spinal cord tumors, arteriovenous malformations, spinal dysraphism, etc. Anterior cervical discectomy, anterior approach to anteriorly placed spinal cord tumors was started. Transoral approach to the anterior aspect of the foramen and the dens became routine and this expertise was passed on to the next generation.
None of this would have been possible but for the vision, courage and dedication of this great man Professor Jacob Chandy and passion for training which gave rise to his two arms Professor KV Mathai and Professor Jacob Abraham whom we adore and salute.

Jai Hind.

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