

**Prof. K. Srinivasan**

**President, Neurological Society of India 1993.**

**K RAJASEKHARAN NAIR**

I am quite at home in Madurai and Madras - thanks to my freinds Prof. K. Srinivasan and Prof. C. U. Velmulugendran respectively. In almost all CME's conducted by any one of us in Trivandrum, Madras or Madurai. it is almost taken for granted that all three of us would be present as we used to invite each other only by a telephone call. It was a surprise for me that Prof. Srinivasan said that he missed my letters asking him to send me his autobiographical write up. There is a story about the great American writer John Steinbeck. If any letter was kept unopened for couple of days, he considered them that they might be preferably thrown away still unopened. Perhaps KS is a follower of Steinbeck.

We have a lot of things in common which makes our friendship very close. Both of us believe that a sound knowledge of General Medicine is mandatory for the practice of Neurology. Both of us believe that blunt comments are much more useful many times than the very polished smooth comments which mean nothing. Both of us like certain authors immensely. For example both of us like the works of Dr. Oliver Sacks, Dr. Richard Asher, Klawans and others.

Because of the very short notice, KS sent me a very succinct write up about his department. I again rang him up and it was only then I got some information about him. K. Srinivasan was born on 24 Oct. 1934 and had his MBBS and MD (1961) from Stanley Medical College. He did his DM Neurology (1969) from Madras Medical College and Ph D from Mudurai Kamaraj University (1980). He had an year's training in Neurology at the Institute of eurology,London(Sept.1968 Sept.1969).He went on adding his postgraduate degrees like MRCP (Edin & glasgow) 1968, FRCP (1975) and FAMS (1990).

He started his career as Assistant Professor of Medicine in Stanley Medical College (1961-65), Assistant Professor of Neurology (1965-1971), Reader and then Professor of Neurology at Madurai Medical College ( 1971 - 1991). Though a globe trotter, he never liked to leave Madurai. When Prof. K. Jagappathan retired he could have gone to the Institute of Neurology at Madras as the chief. But he managed to stay back in Madurai. Obviously he became the founder and the most popular neurologist in Madurai region. He is equally interested in General Medicine and Neurology. At the fag end of his official career for no fault of his, he fell out of tune with the officialdom and had to move out for a brief period to Coimbatore. Fortunately everything got sorted out soon and he returned to Madurai.

He insists that his neurology residents should have adequate knowledge of general medicine also. There may be the new brands of neurologists who would scorn at this but KS has shown to hi-s students that a hypothyroidism can present with an ataxic syndrome or a cardiac source should be carefully checked for any stroke syndrome.

His studies on cerebral venous thrombosis. cognitive neurology. parietal and frontal syndromes are excellent works. He is an erudite orator'(in fact his Presidential Oration of NSI at Madras was simply superb). a well lead person, difficult examiner. pleasant companion. First class clinician and above all a wonderful friend

**A brief history of the Department of Neurology and  
Neurosurgery, Madurai Medical College  
and Govt. Rajaji Hospital, Madurai.**

Prof. K. SRINIVASAN.

Our hospital is the second largest teaching hospital in Tamil Nadu. Madurai city has a population of more than 1 Million. Being a Temple and textile city it is a major centre of culture and business in Tamil Nadu. Our hospital caters to the need of not only people from Madurai but also from all the nearby districts. Fortunately our department is in the same campus where the other departments like General Medicine, Surgery, Obstetrics and all speciality and superspeciality departments function. Hence there is an easy access for coordinated work providing excellent practical opportunities to the post-graduate students. To a great extent it avoids a lot of red tapism as well.

The combined department was organized initially by Prof. M. Natarajan MS, MCh, FAMS about three decades ago. I took over in 1970. Fortunately this combined department ensures integrated knowledge both in neurology and neurosurgery to the students. Till date 38 M. Ch and 24 DM candidates have successfully taken their training. After my retirement Prof. Gajendran became the chief of the department. Prof. D- Ramasubramonian, MD, DM, Professor of Neurology is now the chief of the Department. I am sure that under his tutelage the Department will grow further.

The department has an excellent staff pattern (3 Additional or Associate Professors, 12 fully qualified Assistant Professors and many junior staff). The Neurology section has all the required facilities like EEG, EMG, Evoked potential etc. under able persons. The Neurosurgery section has daily operation facilities, both elective and emergency. It has all the modern equipments for Stereotaxic surgery, operating microscopes etc. It runs a full time Head Injury service as well. The neuroradiology (with CT and MRI) and neuropathology departments offer very good support to us. We have a well stocked library with all equipments for teaching aids also. Both the departments have access to the physiotherapy wing of the hospital which makes the rehabilitation of the patients easy.

#### **Research programs:**

We have undertaken a series of research activities which earned us a lot of reputation in India and abroad. The main topics we could cover during my tenure are the following.

#### **Prognosis in Coma:**

We could demonstrate that deep coma over 8 hours with absent brain stem reflexes in primary brain injury like strokes head injury or infections would invariably end up fatally. Hypothermia, drug overdose and metabolic causes should be excluded from this group. CNS Plasticity:

We have made some interesting studies regarding the infantile hemiplegia. We have used carotid amygdal test and neuropsychological tests. The shift of speech centre from left to right hemisphere could be demonstrated in left brain lesions of Infantile right hemiplegia. When it happened so, the nonverbal IQ, a function of the right brain suffered to some extent to compensate for the speech centre shift. But in Infantile left hemiplegia the nonverbal IQ is reduced but verbal IQ is not compromised. We could demonstrate two further points. Hemisphere dominance can not be changed by changing handedness. No change in brain function occurred when the patient has paralysis or hypoplasia due to extracerebral causes.

We run a multidisciplinary clinic for cerebral palsy which helps to pick up the various handicaps of these children. Rehabilitative measure if undertaken early would bring out better results.

## **Higher Brain Functions:**

In those patients without dementia or focal neurological deficits, clinical neurology and neuropsychiatry would pick up aphasias, agnosias and amnesias much earlier and in a better manner. Inability to Copy or draw a star, clock face or a cube would expose a right brain dysfunction in hepatic encephalopathy. In ambulant adult without sensory-motor paralysis a passive dependent existence and clumsy behavior can sometimes be explained by a major right or left brain cortical dysfunction. Disconnection syndromes are appreciated by only clinical neurology. In most of these cases MRI or CT would be helpless. MEG and CET studies certainly add academic glamour but are very expensive and not really essential.

## **Other studies**

We have undertaken studies on neurosyphilis, hereditary ataxias, spinal muscular atrophies, muscular dystrophies, spinal dysraphism, tentorial venous sinuses and basal ganglia hypodensity lesions also. These studies have been presented at different conferences.

## **Personal impressions:**

To learn from experience and to gain expertise, we need guidance from better people and i am greatly indebted to the entire teaching staff at Madras and Madurai. Prof. E. P. Barucha and Prof. Noshir Wadia have guided us for scientific neurology practice based on sound internal medicine, for unambiguous presentation, elegant in details with added colour including modern technology. Prof. B. Ramamurthi and Prof. Arjun Das always simplified complex, problems with clear brief and effective arguments.

The heart is made to pump and perfuse organs and the brain to make us walk and talk sensibly, to plan, anticipate and act inhibiting impulsive behaviour. Any test that does not assess these functions also by-passes the diagnosis. Prof. Dennis Williams, Sir Charles Symmonds, Prof. M. C. Donald Critchely and Prof. Fred Plum exposed more challenges in the brain than peripheral nerves and used the neurological kit with knee hammer, pins, and needles only after localising the lesion with analysis of the symptoms and behavioural neurology.

## **Future:**

Considerable enthusiasm has been generated to activate studies in prevention of stroke and quality of survival after stroke and prevention of first and second accidents in Head Trauma, which appear to be more sensible and beneficial to the patient than the high tech costly and uncertain therapeutic exercises in any centre, once irreversible neuronal damage is not prevented.

Cardio thoracic thromboembolic lesions and intracranial vascular lesions are far more common than any significant occlusive carotid vascular disease at the neck. High TGL levels are more common than high cholesterol or low HDL. Diabetes is still a major unconquered metabolic cause of relentless neurological disability. Studies in Indian patients for risk factors are in progress.

For the sake of reliable diagnosis from experienced persons there should be less ego more willingness to refer to other centres for the less common biochemical, histopathological, bacteriological diagnosis.

Constant exposure to Internal Medicine is considered essential for sound neurological practice there is close interaction with Ortho, Anaesthesia, Paediatrics Obstetrics departments to assess and learn the

neurological complications. Progress in neurology has necessitated our desire to learn more of Genetics, immunology and Basic sciences.