

**M. SAMBASIVAN**

**President , Neurological Society of India 1996.**

I was born in an orthodox Brahmin family on May 1 st 1936, the birth star being Pooram (Poorvaphalguni) Pooram star is considered very auspicious for men- 'Pooram Pirantha Purushan' (Poorvaphalgunau jatha purushah),May be the hard work and the confluence of horoscopic powers have done well and I could achieve what I could!

As a little boy I used to see my father reciting mantras and just by listening, I too could do it and no wonder the Vedas are called Srutis. My father used to wake up at 4 am and walked about the veranda mumbling Prathasmaranam for 30 minutes. Then he had the morning ablutions and bath followed by Sandhyavandanam, agnihotram and then Suryanamskar. Then he did the Devapooja and at 10.30 am he took his breakfast cum lunch. At 11 am he would go to the Law Courts, as he was a practicing Lawyer. He would return home by 4 p.m. and had milk and sweets. Then he would see his clients till 6 p.m. and would be back doing Sandhyavandanam and agnihotram. His dinner consisted of milk and fruits and would retire to bed by 10 p.m. For pooja and his personal needs he insisted on milking the cow and would not allow anyone to wash his clothes. So self-dependent he was he could manage till late in his life. He openly pronounced the truth that at least some did not like him. But in the courts and amongst his colleagues he was admired as "truthful". He always carried a small pocket 'Bhagavat Geeta' book, which he would read to himself whenever time permitted. My mother was at his heels and did everything in anticipation. Of course, she gave him rocklike support. My aunt and my mother would tell me stories from Bhagavatha and Ramayana as often as possible. So my childhood was very much influenced by these events. My father wanted me and my brothers to learn Sanskrit and exposed us to the books, but I got the best out of them as I persisted with them. I used to tell my father what I learnt in the course of the week and on Sundays he used to take me to the Zoo or Aquarium. So my interest in nature was kindled very early. My father used to walk with long strides and I had to run to keep pace with him. He never asked me to read school texts or do home work, but knew that it would be complete and I had to keep up that confidence. I was initiated into Vedas and I could Chant Houtram etc. even as a 10yr old lad. Now in retrospect, I realise that these exercises improved my receptivity, recognition and recall capacity. In the evenings I was allowed to go to the nearby Library for reading extracurricular material and this did help in widening my vision. In the mornings at 5 a.m. I used to go to the nearby Gymkhana and I learnt Yogasanas, ground exercises and wrestling. So my mental and physical capacities were given ideal opportunities to develop. I doubt whether these circumstances are available to the present day youngsters.

My school education went off well and I passed the English School- leaving certificate with top marks in Physics, Chemistry and Biology. I was also awarded a prize for this at the annual School Day celebrations. I passed with second rank in the school and then joined for Intermediate at University Second Grade College. I had taken the second group in which the subjects were Physics, Chemistry and Biology, as for the second language, I chose Sanskrit. I had my liking for nature study and my idea to take up Medical career also prompted me to take up second group. In the college I did well, joined the debating society and got some prizes. I also represented the college for basketball tournament. The final examination was over and I passed with First Class and Distinction in physics, Chemistry, and Biology. So the stage was set for me to apply for admission to Medical college. But my Father thought otherwise. He wanted me to go for Sanskrit Literature and told me not to apply for Medical Course. So I joined for B.Sc. at University College taking Chemistry as main subject and Zoology as subsidiary. I had my second language sanskrit. I was also elected secretary of chemistry Association and it was an interesting year. I passed the B.Sc. Examination with First Rank in the university for Chemistry

Main and Zoology subsidiary. During the period I was an active participant in National Cadet Corps and passed the B certificate examination.

Again, I wanted to apply for the medical course and now my father agreed on condition that I would continue my Sanskrit studies, which I am continuing even today, with his blessings. So I joined the Medical College Trivandrum in July 1955.

My N C C training inculcated discipline, planning ability and work execution and me mature. I remember an incident at the annual training camp, by which we got the Best Platoon award. All of us had our uniforms equally starched and ironed. had our haircuts done similarly, boots and web belts similarly polished and presented ourselves at the parade ground. We became the cynosure of all eyes and our performance in drill and other tests were adjudged the best.

At Medical College the studies progressed well and as I was a B.Sc. in Chemistry I was exempted from appearing for organic chemistry. I utilised the time in learning Anatomy and did some extra dissections. In the weekly tests I scored good marks in Anatomy as well as Physiology. At the end of first N4BBS when the results came I stood first in the class. Couple of incidents remains fresh in my memory. Once I was dissecting the internal ear. I was so engrossed in the dissection that I did not know the Professor was standing behind me. He patted me on my back and I got up with a start. He congratulated me on the dissection and later got it mounted in the Museum. During the final Physiology examination the experiment I got was "effect of Ca on the heart muscle". I had prepared the frog's heart with the Symes cannula in and perfused the heart. The recordings were made on the smoked drum and I was ready. The external examiner came and asked me how I did it so fast? He suspected some mischief and asked me to repeat the experiment in his presence. I did it again. The examiner asked me what I demonstrated and I replied 'Calcium rigour'. Tell me another rigour? I replied 'heart rigour'. Tell me another rigour? I replied Rigour Mortis. No more questions were asked and later my Professor just congratulated me.

Meanwhile, Medical NCC was started and I was appointed Sergeant Major. Another period in NCC was interesting indeed. I did all my exams well and in 1958 December we were to go for a camp at 92 field Ambulance at Ahmedabad. Many questioned my prudence and told me that I was squandering my time with NCC. Yet, I did go on and passed the C Certificate examination. By now I was a Senior Under Officer and I got the chance to lead the Kerala contingent of NCC at the Republic Day Parade at New Delhi. Even now I look back with nostalgia the parade and the salute to the then prime Minister Jawaharlal Nehru.

I was also the secretary of the social service association. We organised weekly visits to the coastal areas and gave medical help to the poor. All sample medicines were collected and more got from medical representatives and some we purchased from the funds we raised. It used to be very eventful with the final year students and doctors diagnosing new cases and doing minor operations also. we conducted benefit performances and raised more funds. we also conducted a nursery school for the indigent children and gave noon food also.

As I was very much interested in Neurosciences .I did explore avenues to study it more. I did dissection of the Human Brain at least four times. In my final year period I saw prof. Ramamurthi draining a Cerebellar Abscess and later Prof. R. M. Varma exploring the pituitary. Prof. Mahadevan Pillai visited us and I also saw him doing a carotid angiogram.

The final MBBS Examination was over and I was the best outgoing student in 1959 winning six gold medals. I won two medals for Obstetrics and Gynaecology and for Surgery. Best outgoing student's medal and two medals for scoring the highest marks from 1st to final MBBS put together.

Those days we had to do internship and a year of house surgeoncy. we got Rs. 75 as stipend for House Surgeon. I used to remain in the hospital for long hours and helped the anaesthetist with Lumbar puncture for giving spinal anaesthesia. I could perfect the technique for doing LPs. I learnt to pass endotracheal tube and could manage anaesthesia fairly well. I went to help the thoracic surgeon so that I could see first hand thoracotomy. The general surgeons used to tackle head injuries and I used to be there also to see. The exposures I got was simply great the like of which I think anybody can get today.

After my House Surgeoncy I was selected by the public Service Commission as a tutor in General surgery in 1962 and I joined the Trivandrum Medical college as Assistant to Prof. R Kesavan Nair and Assistant RMO of the hospital. Meanwhile, Prof. Raman Nair of Paediatric Surgery gave me plenty of opportunities to work on Congenital Hydrocephalus, Myelomeningocele etc. We used fine infant feeding tube and did VP shunts. Meanwhile, sophisticated shunt systems were available abroad and ventriculo atrial shunts were the fashion. Now we all know that primary choice site for shunt is peritoneum and up shunt is the procedure of choice. I learned to pass catheters up the aorta, inferior vena cava and so on. on one occasion the catheter got stuck in the mouth of a lumbar vein and I was able to get an excellent picture of vertebral venous plexus. In fact that was my first publication. There was an experimental lab set up which was in doldrums. Prof. Raman Nair got it in shape and got it running. I could make use of it and learned vascular anastomosis and Nerve suture. Two visiting professors from US Dr. Wharton Young (Young Sac fame) a Neuroanatomist ND Robert Grennel a Neuropharmacologist did give me advice and exposed me to experimental techniques. These efforts in the 1962 period did stand in good stead in later years. I had also received encouragement from Radiology department and I could do angiogram any time. Even in the absence of appropriate Seldinger set with makeshift cannulas I could puncture the femoral artery and pass a polyethylene tube up into aorta. So I could demonstrate renal artery stenosis and aneurysm of Aorta. Carotid angiogram or femoral angiogram was very easy and I had helped many postgraduates with such pictures in their theses. This exposure again was very helpful in the years to come.

In October 1962 an announcement came in the papers that the primary FRCS examination would be held in Calcutta in March 1963 and applications were invited. I applied to the Royal College of Surgeons England and remitted the fees also. Later on the Chinese conflict occurred and it was doubted whether the examinations would take place. I wrote to the Royal college but they informed that the examinations would be held as scheduled. With necessary preparations I went to Calcutta appeared for the examination. I was the only candidate who passed from Kerala. Out of over 200 candidates only 18 passed. Afterwards, I got a letter from Royal college congratulating me and giving me a hint that I was being allotted to Sir Clement Price Thomas who would offer me a placement in London. Dr. R. J. Last also wrote to me offering help and accommodation facilities. I thanked them and told them that I was doing my Postgraduate course in Surgery and would be free to move to London only in March 1964 and requested the same facilities even later, They replied in the affirmative and I was happy.

But in February 1964 I passed my M.S. general surgery examination and Professor Thangavelu, the then principal, knowing my interest in Neurosurgery told me that a seat for M.S. Neurosurgery was available at Christian Medical college, Vellore and advised me to join the course. with the rosy prospects beckoning me to England to make the choice was difficult. Yet, I opted to go to Vellore for my training in Neurosurgery, inspite of many advising me not to take up Neurosurgery, particularly as the mortality rate was very high and the results were poor. I did not go to England to appear for the final FRCS. And as providence willed I got the FRCS conferred in 1990! Strange are ways of God.

I joined CMC hospital Vellore for my training in Neurosurgery under Professor Jacob Chandy. I had not seen professor Chandy but had an image of him as a strict disciplinarian and a man of few words. There were many problems that followed as regards my service and deputation benefits. Less said the better. I left my wife who was in the final stages of

pregnancy at her father place to face the situation alone. In Vellore, I was given accommodation at MIQ and I started in right earnest. one week passed and I got the information that a boy was born. That is Mahesh. my first son.

As I went to the hospital it was about 6 p.m. and I met Dr. Banerji and Goodwin Newton. Mr. Rajagopal was the departmental secretary. Next day I met Professor K. v. Mathai who impressed me as a gentleman. I met Professor Jacob Abraham in the theatre and he impressed me as a person of depth and erudition. Dr'. G. M. Taori who was the Neurologist was found to be very affable and most helpful. professor Jacob Chandy was not in station and he came a few days later. I was sent from the wards to meet him. Dr. Chandy was pacing in the office with Rajagopalan at his heels taking some notes. An awful silence prevailed and I was ushered in to his mighty presence. I did not know what to speak and was dumb. Then I heard his booming voice 'so you are the new resident. And I don't want to hear an1, complaints about you. Neurosurgery demands full attention and you shall not slacken at any time. If a case is admitted at midnight you must complete the work before dawn. There are textbooks, but the patients are your book and learn from them. we are here to guide you" Dr. Harold Voris Visiting Neurosurgeon from US joined him and both laughed and the atmosphere eased a bit. Dr. Chandy, patted me and dismissed me from the office. whenever Dr. Chandy was in station there was perceptible difference 'You know Dr. Chandy is there.' He would come for rounds and all the assistants and residents would have to face a barrage of questions. often, I used to be the target for the questions. I learned a lot. With my earlier experience in arterial punctures, doing carotid angiogram or retrograde brachial angio was an easy affair. After the last examination I came to know that daily reports would go to Prof. Chandy about every resident as to his abilities. How L P was done. how many misses. How the angio was done and so on. I was lucky in that only good reports went to him. Thus a stage came when seniors would direct "if L p is difficult call Sam, or if the arterial puncture is difficult call Sam". That way all the seniors developed a confidence in me. That made me work more diligently. Later on I used to assist Dr. Chandy for the private cases. He would put his finger in, pull out a meningioma put in a big. Cottonoid in and tell me 'you control the bleeding' and get out. With my heart in my mouth and sweat trickling on the back I would get the haemostasis achieved. Then he would peep into the theatre and ask .everything OK' and go to the office. That kind of faith reposed in me made me do surgery with confidence and stood in good stead all my life. I used to reach the wards at 7.30 a.m. and go to the OR. Even though I was staying in the Harley Street in the hospital campus I could not find time to go home for lunch. It used to be brought to the office. By the time ward rounds were over it used to be late and some emergency would crop up.

So I used to be in the hospital even for 72hrs at a stretch! My wife would say your son may not recognise you as you go away before he wakes up and come back after he has slept. I don't know whether that kind of hectic schedule exists in any Neuro department today. As there' are more residents and assistants today the work gets divided. In my final year of training after Professor Mathai, I was the most senior and so I used to be called for consultations, taking classes and so on. I was known a fast surgeon and rapid evacuation of subdural haematoma etc. became common. Unconscious patients becoming conscious at the end of the procedure lent me the 'fame'. Any surgeon could have done the procedure, but it happened luckily for me. Before the final examination it was customary to get two months of study period . As I was alone in my batch and after Mathai there was none else, I used to be called upon to help the juniors and attend to all emergencies. So the 'study period' got attenuated. But, I gained a lot of practical experience.

Then came the final examination. I did well. I do not know what transpired between Prof. Jacob Chandy and the other examiners (Prof. B. Ramamurthi, R. Ginde and R. M. Varma). Yet, I found that I was being bombarded with questions continuously. The surgery – operation on an anterior third ventricular tumour - went of well. This tumour was masquerading as a pituitary tumour, but, turned out to be an ependymoma. The clinical and afternoon Viva Voce went on. At last, an angiogram was shown. It was a case of Aneurysm of Great Vein of Galen with hydrocephalus. I diagnosed it and discussed it. And the examiners gave a big smile and I was dismissed. In those days possibly that was the first case of Aneurysm of Great Vein of Galen demonstrated angiographically.

Later, I came to know that I was given distinction. Dr. Chandy had wagered 'if Sam did not answer a question fail him, but if he answers all, give him D'. I am glad I stood up to the expectations of Dr. Chandy. My period spent in the Department of Neurological Sciences at CMC Vellore flashes back in my memory, as did the daffodils of Wordsworth.

After my M.S. in Neurosurgery I wrote a letter to Dr.Thangvelu about my successful completion of the course. In two days I received a telegram urging me to join Medical College Trivandrum immediately. So I came and joined the Trivandrum Medical College as an Assistant Professor of Neurosurgery. I had to face many service problems, organisational difficulties and had tough time convincing doctors about good results of Neurosurgical procedures. I started in April 1966 and had only two beds in the unit and I was working under the first Surgical unit headed by the Director and Professor of Surgery. Cases started coming in and those too very sick or unconscious cases and investigating facilities were close to impossibility or non existent. Struggle was great, but incessant. I had no assistants, but the general surgery postgraduates came to my help. I had no operation days, but in the afternoons after the main list was over I would procure theatre facilities and a willing anaesthetist would help. There were times when I had to do cases under local anaesthesia. Even clipping of aneurysms was done under local anaesthesia. Times have changed now.

One day I was called in to see a comatose patient in the Medical Wards and he was being treated as a cerebral thrombosis. He was 50 years old. I did an angiogram and found a large subdural haematoma. I proposed surgery, but the relatives wanted a day to settle his LIC papers and wanted to arrange for his funeral! Next day, I was given permission to operate. The patient was having stertorous breathing and extensor spasms. Yet, I went ahead, passed an endotracheal tube sucked out the secretions and did a burr hole under local anaesthesia. The subdural was a solid one and I had to raise a flap and removed the haematoma. I closed up the scalp wound and to every- one's surprise (there was a big audience) the patient's respiration was better, and the secretions had come down. Patient was sent to the Post operation ward - a -general ward where all post op cases were kept. No intensive card ward! I stayed with the patient holding on to his drip flowing hand and next morning he was conscious and talking. There was a steady stream of doctors and all by- standers of every patient. So a good result in a comatose case brought 'fame' and confidence.

Now, more cases were being referred from all over. The workload increased and my wife remarked "CMC was better". All head injuries were referred to me and everyday there used to be at least three night calls. I had neither telephone nor a vehicle. So I used to find it extremely difficult to go about. At last, a telephone connection was given and the hospital ambulance came to take me to the hospital. In the hospital and in the neighborhood I was named as The 'He Buffalo'. (The He Buffalo is the vehicle of Lord Yama the God of Death) As the cases referred to me were mostly cases in deep coma it was not possible to salvage all of them. Angiographic studies done in such cases gave a help in diagnosis but all of them did not survive and the Angiogram was nicknamed 'anthiogram', a last rite!. People even said that unless a burr hole was made the dying patients did not get admission into Hell or Heaven! Udaunted, I proceeded and the Neurosurgery department became independent, all service problems solved, my deputation benefits were given and at last people began recognising Neurosurgery. The beds allotted increased to 25 and separate operation days were fixed. I could get any case readied for emergency operations in less than 30 minutes. Autoclaved craniotomy sets, burrhole sets and laminectomy sets were available. More assistants were posted. With shift duty systems 24 coverage of casualty services was possible. A concentrated effort to identify cases of subarachnoid haemorrhage was started and in one year 18 cases of IC aneurysms were diagnosed. So in 1968, a collaborative work for study of Aneurysms and subarachnoid haemorrhage was started with ICMR support. This study later on proved that this problem is common in India, refuting the earlier concepts.

In 1969 there was a proposal for starting a centre to commemorate the 60th Birthday of Sri Chitra Tirunal Maharaja of Travancore. I got involved and after a lot of efforts and planning with a small amount of g lakhs of Rupees the project

started. The foundation stone was laid in 1971 by the then Governor Sri Viswanathan. The contributions from the Royal Family increased and with efforts of well wishers the construction was completed and on the 60th Birthday of His Highness Chitra Tirunal, the building was inaugurated by the Governor Sri Viswanathan in 1972 exactly one year after the foundation stone was laid. Even though the new Building was to house the speciality departments, destiny took a turn and the Sri Chitra Tirunal Medical centre was born. I was one of the initial signatories of the constitution along with Dr. C. M. Francis, Dr. K.R. Warrier and Dr. K.N. Pai. Winds of change blew and this centre became an autonomous institute - Sri Chitra Tirunal Institute of Medical Science and Technology. This is now an institute of National importance, and I am glad I could do something for it in the initial stages.

I continued with my set up in the Medical College and the post graduate course in Neurosurgery was started in 1979. This effort paid its dividends and all the Medical colleges in Kerala are manned by the post-graduates trained by me. Besides the work on aneurysms other studies on Posterior 3rd ventricular tumours, Unilateral proptosis, Brain Abscess, Pulsed Electro magnetic energy in the management of cerebral oedema, and others were done and published. In 1979 the annual conference of the Neurological Society of India was held in Trivandrum and I was the organising secretary.

Meanwhile, I had served in the Expert Committee of ICMR, Standardisation committee of Bureau of Indian Standards and such other committees. I also became the Postgraduate Examiner in almost all the centres. I was able to attend all the professional society meetings in India and also abroad. Since 1971 with my participation in the 2<sup>nd</sup> European congress at Praha I could participate in International meetings. I was given membership in the congress of Neurological Surgeons and AANS in 1968. Almost every year I did attend one international meeting or another. I was indeed fortunate in that The Government of Kerala deputed me to participate in the various meetings abroad. By this, I was able to establish contacts with the leaders of the profession like Charles Drake and Ghazi Yasargil. I could help younger Neuroscientists to go abroad through help from such magnates. I could also get some Aneurysm Clips and such instruments also as gifts, which I did use in the management of poor patients.

I was an ardent Equestrian and used to go for riding in the mornings. The Horses were from the Mounted Police and I did well with them, that I could do jumping, tent Pegging and other exercises. But, all that ended up with a jarring note in August 1972, when I had a fall and sustained fracture of both bones of right forearm" it required internal fixation, and Dr. Natarajan did it at Madras. With the immobilised right hand I learned to write with my left hand and could do many jobs with left hand, including venipuncture. But, I said good bye to riding.

Meanwhile, my family became bigger and I was blessed with a second son, Kumar. I continued my Sanskrit studies I maintained my contacts with the temple and did officiate as Thanthri on all special occasions. Later, in 1973 a baby daughter also was born. My second son and daughter did not want to take medical course. Kumar is an MBA and my daughter a social scientist, M.A with second rank of Pune University. She is happily married to Shivkumar a mechanical engineer.

In Munich International meeting recognition was given to me ( 1981) and our work on Pineal Region Tumours was accepted for publication in Modern Neurosurgery. I was also a special lecturer in the symposium on 'Antibiotic of Choice in Intracranial infections. 'In 1985, at the Toronto meeting I became a member of the Neuro Trauma committee. It was at this meeting where I had to wage a lone but successful battle well supported by Professor B. Ramamurthi to bid for WFNS meeting The 1989 meeting was held in New Delhi. By dint of merit the WFNS and IEA meeting also were held at New Delhi in 1989. It was a signal honour, which came to the Neuroscientists of India, and I am very happy it occurred during my tenure as Secretary of NSI.

I am member of NSI since 1966 and served the society as an executive committee member from 1974 to 1977. In 1978, the annual conference of NSI was held in Trivandrum and I was the organising secretary ably supported by my assistants, SKR Nair, Sanal Kumar, Jayakumar and others. In 1983 at the Annual conference at Madurai, I was elected secretary of NSI which I continued till 1990. Soon after my assumption as secretary the 'Newsletter' was started as bimonthly publication. This was circulated to all the members of NSI through which excellent rapport could be maintained. The feedback received was good. I am glad the successive secretaries have maintained its publication. The societies documents such as Registration certificate and others were not found in the files. Contacting my predecessors did not yield any result. Possibly they were lost irretrievably. Our Income Tax returns also were not being filed regularly and this deficiency also had to be cleared. So I went to Bombay where the Society was registered as charitable trust. The charity commissioner's office raised many queries and objections and all were cleared. At this juncture, the effort taken by P. B. Bharucha is gratefully remembered. All the necessary papers were filed with the Income Tax Department and everything was cleared. We also got the 80-G exemption certificate.

It was a Herculean task, but it did take place. At every annual conference the Treasurer V K Kak used to come with all the papers and we opened the NSI office at the venue. We could collect all subscriptions and the defaulters' list almost became extinct. Somehow this pattern got discontinued and now we see defaulters' list. The efforts at WFNS continued and I was the Scientific Program Director at the 9th meeting at New Delhi. I also became a member of the residents, award committee. I was also Deputy Chairman of the Neurotraumatology committee till 1997. In 1997 I was also elected unanimously as the Second Vice President of WFNS. This tenure will be over in 2001, at the 12th WFNS meeting at Sydney.

I was the Vice President of NSI in 1995 at the New Delhi meeting and became President of Neurological Society of India in 1996. I was glad to be the President as it held all the affection and goodwill of all the members of NSI. My tenure as the President was uneventful. The presidential oration given at Calcutta was well received and again I was glad to chair the Annual General Body meeting and then hand over my charge to Dr. Sarala Das. Having reached the pinnacle of joy as President and fulfilment of happiness I was happier still to hand over charge to my successor. Now, as a past President I can relax and see the further growth of the society. But, I continue as Vice President of WFNS till 2001. Time and tide waits for none. It goes on relentlessly, may be there could be periods of gloom to be enlivened by floods of brightness. As Shelley puts it 'If winter comes can spring be far behind'.

To the younger colleagues let me tell that nothing can replace hard persistent effort. With all the doldrums of consumer protection and related problems never ditch your colleague nor paint him/her in bad light. Keep all records complete and well preserved. Be humble and never boast. Keep in touch with the newer developments. Success will be yours.

#### **Editor's Note :**

Prof. M. Sambasivan is an unusually gifted person with many talents. As an undergraduate and postgraduate student he was known not only as brilliant student but also as a keen sportsman, equestrian, officer in National Cadet Corps etc. He is in first in the Kerala Medical Education Service to get qualified in any super speciality. He is a great organiser and can coax people to get anything in academics and or in organisational field. He was responsible along with Prof. M. Thankavelu for initial spadework of Sree Chitira Tirunal Institute for Medical Science and Technology, Trivandrum. His studies on intracranial aneurysms, created a great interest in the neurological circles. He is now working at Cosmopolitan Hospital, Trivandrum.