

# Few Questions to Dr.S.Natarajan



*Dr. Sundaram Natarajan, Chairman and Medical Director, Aditya Jyot Eye Hospital, Mumbai, hails from family of Ophthalmologists is well known for his versatility, intuitiveness, Tech. Savvy, and excessive obsession to excel.*

*After his post graduation and fellowship in Ophthalmology at Chennai, chose to start his professional carrier at Mumbai against much odds and in a short span of time has flowered into one of the top most vitreo-retinal surgeon in the retinal country, with more than 10,000 retinal surgeries to his credit and one of the world's youngest vitreo-retinal surgeon in his time. His clients include "who-is-who" in Mumbai. Dignitaries who patronized his hospital include Governors, Chief Ministers of Maharashtra and Karnataka, famous film stars like Aiswarya Rai and others. President of India His Excellency Dr.A.P.J Abdul kalam has visited his Institute and honored him.*

*His academic interest is equally close to his heart and he is well sought as guest faculty in various National and International Ophthalmological Conferences and Seminars and he spends almost half of his time abroad. Apart from several accolades, he was the only Indian recipient of the "American Vitreous society 2000 senior honour award and he was awarded the prestigious" GUSI PEA CE A WARD" for his outstanding contribution in the field of Ophthalmology, first Indian to receive instituted by the Gusi Foundation at Manila, Philippines.*

***At the dawn of your early years, when you went to Mumbai after post-graduation and fellowship, training at Chennai, what reasons influenced your mind to pursue vitreo retina super-specialty as your professional career?***

Being the 3rd generation ophthalmologist in our family I grew up in the Government Ophthalmic hospital quarters as a child. Both my grandfather Dr. S.Nataraja Pillai and my father Dr. N.S. Sundaram studied and worked in the same Govt. Ophthalmic Hospital and we stayed as a joint family. Working on eye camps as active volunteer exposed me to writing operation notes, shifting the patients and assisting them, etc., with my father at the helm of eye camps, organized by Govt. of Tamilnadu. No wonder it has been said *Learn to be with the wise and your life will flow and glow!!* Yes, I am very grateful to my parents for molding me to this position.

My interest in micro surgery was sparked off after I attended a workshop by Dr. Madan Mohan at Cochin AIOS conference, 1984. The availability of. Only one microscope at the Govt. Hospital made it a difficult proposition for me though I was permitted to perform microsurgery. My father's kind gesture of procuring a Juggi microscope in 1982 helped me practice micro surgery at home on enucleated eye balls.

I had many exposures that moulded my career in Ophthalmology. During my PG in late Prof C.P. Gupta's Unit, Dr. Daljit Singh demonstrated Iris claw IOL and providentially I was permitted to assist Dr Singh. At around the same time I heard a lecture by Dr. Chandrapa S. Reshmi at the Cochin AIOS 1984 conference. I learnt about the intricate triple procedure from his lecture (ECCE, penetrating keratoplasty, intraocular lens).

All this exposure got me totally besotted by micro surgery and I mustered courage to approach Dr. S.S. Badrinath for a fellowship. He informed me about vitreoretinal surgery being the only field available, something quite unheard of in those days.

I thus got initiated into Vitreoretinal surgery. During my fellowship in VRS, I was permitted to assist complicated vitreoretinal surgeries and also perform surgeries independently very often reposing so much more confidence in me, than I had in myself. In 1986, a publication in American Journal of Ophthalmology on primary vitrectomy for macular hole with detachment by Dr. Robert Machemer aroused my interest. A similar myopic patient with Macular hole and localized macular detachment presented to us then. I was asked to do primary vitrectomy. I performed vitrectomy FGE & SF6 without buckle as suggested by Dr. Robert Machemer.

By then I had done several retinal detachments with a pseudophakic iris claw lens and grappled with problems of rotation of IOL during VRS. My passion for management of ocular trauma with vitreoretinal surgery started growing. By then, I was keeping pace with international advances and innovations happening in vitreoretinal surgery. In 1986, I was appointed as faculty for the retinal detachment course with Dr. M.M. Kini and for advanced vitreoretinal course by Dr. Akiyo Yamanaka, Dr. Inatomi from Kobe University and Dr. Kenji Oshima from Fukouka University, Japan. This Japanese team exposed me to the VISC machine for vitrectomy. Later, the meticulous Dr. Relja Zivojnovic from Antwerp, Belgium, demonstrated vitreoretinal surgery literally opening new vistas for me. I imbibed intrinsic details about vitreoretinal surgery and his brilliant innovations. As Dr Zivojnovic observed my surgery as an enthusiastic 29 year old, he appreciated my vitreoretinal surgical skills He so moulded and encouraged my skills. I pursued vitreoretinal surgery as my professional career!!

***Your passion driven excessive obsession to become a vitreo retinal surgeon at Mumbai, would have met initial competition and challenges, especially Mumbai is the hub of India and abound with stalwarts, can you recapitulate some and how do you surmount them?***

Life is a series of experiences which are processes with which one should intelligently flow, I have realized. Having married Priti from Mumbai on 10<sup>th</sup> May 1987 my connection with Mumbai began. In 1988 I presented several papers and videos in the AIOS conference on advanced vitreoretinal surgery where I met Dr. Steve Charles the author of our standard book in vitreous micro surgery. Winning the special prize for best video at the AIOS Conference for vitrectomy, IOFB removal, Endolaser gave me more recognition all over India and particularly in Mumbai.

The Mumbai saga continued as Dr. Kapoor and Dr. Gahlot visited Sankara Nethralaya as observers and again offered me the opportunity to join Bombay Hospital. This time I went to meet Mr. Bharat Taparia, the then Dy. Chairman of Bombay Hospital for negotiations. I laid down two criteria for accepting to join them [1] A home loan [2] My post would be that of Head of Vitreo Retinal service, Taparia Institute of Ophthalmology. Both the conditions were accepted. Thus I got an appointment letter as Head of the VR dept at the Institute at Bombay and left Chennai with tears, ***whatever you have is God's gift and whatever goes is God's work.***

After my new assignment at I Bombay, the VRS surgery rate went up from 1 or 2 a month in the past 15 years to 750 VRS in 15 months a record of sorts. Frustration began to creep into my, being, as the promised advanced equipment has yet not been I organized. I had to resort to buying equipment on my own] after all the patients had to be given the best!!

The inability of Bombay hospital to install the required eye surgery equipment was responsible for my decision to start an exclusive VR Centre at Dadar with loan from the bank. ***Creativity is just not going to the moon, but living effectively on earth.*** True progress has to be defined. To maximize on what you have is progress. The new vision dawned on 15<sup>th</sup> July 1990 at my own Aditya Jyot Eye Hospital. Since academic interest and imparting skills was close to my heart, I started with CME programs In spite of my relatively short stint at Bombay hospital had given me many professional mends from other faculties. They were shocked that I was leaving an institute of this stature to start practice at place in Dadar. ***There is nothing to be proud of but to be only grateful.***

Aditya Jyot Eye Hospital [AJEH] was started with all the advanced VR equipments the first in India to introduce Binocular Indirect Ophthalmic Microscope (BIOM) in 1990. I had this childlike philosophy which always wanted to do the forbidden especially when warned that it is difficult to practice exclusive VR surgery in private. When I moved from Bombay hospital to AJEH there was drop in referrals initially. But later several of the Ophthalmic including Bombay Ophthalmologists Association to popularize this field and met initial competition and challenges especially Mumbai being the hub of India.

***Having earned a coveted reputation as an outstanding Vitreo-retinal surgeon both nationally and internationally in a short span of time, specifically can you recall one or two factors that have contributed from the time you started your career, leading to such enviable eminent stature?***

**I definitely recall the factors that have contributed from the time I started my career.**

- a. Salutations to Mata, Pita, Guru & Deva and their blessings. I can never underestimate my father's, (Dr. N.S. Sundaram) role in helping me overcome hurdles that he faced as Ophthalmic Surgeon in Govt. service. The infinite affection I received from mother Smt. Kamala and my brother & sister plays an immeasurable role for sure.
- b. Rigorous training (military) My skills and talents have been truly honed by the meticulous Dr. Badrinath and from this stems my stamina for long hours of surgery. His training had the wonderful blend of rebukes and encouragement akin to a sculptor working hard to create a beautiful statue. From Sir, I learnt hard work, honesty & sincerity and viewed every patient as God. As Dr. Govindappa Venkataswamy [GV] told, I wish to quote: ***"...if work is approached from a spiritual perspective then it becomes divine work. If in your actions you allow the divine force to flow through you, you will accomplish things far greater than you might have imagined."*** I fell in line with Bhagawat Gita which says "Thy business is with action only, never with its fruits, so let not fruit of action be thy motive, nor be thou to inaction attached".
- c. As my perseverance bore fruits in the face of so many adversities I learnt the benefits of positive thinking. Swami Vivekananda's saying ***"Arise, Awake, Stop not until you achieve your goal"*** is now ingrained in my being .As Swami Chinmayananda says, "Have your goal sky high and do karma with always outstretched hands, you will rise to greater heights. To spread the force of positive thinking that I sincerely practice I have written an article **POWER OF THOUGHT, PRAYER AND KARMA** which I distribute to every patient and their relative who walk in daily.

***It is well known perception that many a budding ophthalmologists aspire to be a vitreo retinal surgeon. However, the prohibitive cost of state-of the-art equipment and steep learning curve of attaining expertise, do not seem too commensurate with the outcome after management and return of investment. Your response, borne out of experience, will allay the apprehension of these young ophthalmologists?***

You are right .The prohibitive cost of state-of-the-art VR equipments and steep learning curve of attaining expertise, do not seem to commensurate with the outcome after management and return of investment. When I started exclusive VRS, there were just 3 to 4 VR Surgeons in India.

### **Aditya Jyot Eye Hospital Pioneers in Ophthalmology:**

- 1<sup>st</sup> in Asia Retinal Endoscope & Preferential Hyperacuity Perimeter (PHP) etc.
- 1<sup>st</sup> in India Optical Coherence Tomography-III for retina & glaucoma; suture less 25 gauge Vitrectomy system for sutureless vitreoretinal surgery; BIOM Wet Lab; Twinlight Endoillumination for Vitreoretinal surgery etc.
- 1<sup>st</sup> in Mumbai IOL Master the revolutionary method for IOL power calculations in cataract surgery & Multifocal ERG etc

Now there is handful of institutes giving training for VRS fellows. Post fellowship, the surgeons can join any of the institutes so that without investing in equipments they can still practice modern VRS Group practice is gradually becoming the order of the day. In this mode of practice, a group of super specialists can start practice together. It is important for the young ophthalmologist to know what life's pursuit and goal. A business mind calculating outcome after management and return on investments is not practical. Hence the philosophy of Bhagvat Gita **"Thy business is with action only, never with its fruits, so let not fruit of action be thy motive nor be thou to inaction attached..."** It is indeed difficult to practice with out mental detachment. However the "Gita" has helped me practice Retinal Reattachment repair surgery and simultaneously learn mental detachment!! The audit figures in terms' of cost effectiveness of each equipment will tend to disappoint the proprietor. My sincere advice is to take the over all profit into consideration and not cost accounting of each equipment. Some equipment may not give any returns at all but others compensate, hence there is over all profit. I always make efforts to get across to my patient that money is not my goal and least of all the only thing in our' life. Balanced thinking has helped my specialty work. Hence my reiteration about one knowing one's purpose of life and practice. Monetary gains should form a small part of one's goal. Serving each patient with love is serving God as then blessings become the only expectations. This goodwill can never be purchased by money power. Seriously I believe this philosophy has helped my success.

***As a frequent invitee as a guest faculty member to many a National and international conferences and spend considerable time traveling around the globe, can you mention one or two motivating factors that drives you to involve yourself in this exhaustive exercise of sharing academic pursuit and your busy clinical practice?***

As I mentioned earlier the exhaustive exercise of sharing academic pursuit has always been my firm belief. Often I have been asked the same by Administrators of Bombay Hospital, AJEH Hospital and my biological family. My passion for academics motivates me to travel great distances around the globe to attend many national and international conferences. I recollect my son and daughter asking me when they were much younger whether I was so good that I get invited to so many conferences." I always replied in the affirmative because VR academics were limited in India. I had been trained exceptionally well in the same. It seemed imperative to disperse this knowledge to develop VR practice all over the country and globe. I follow Rabindranath Tagore's saying: **"If a man is hungry do not give him fish but teach him how to fish"**. Similarly, I spread the message of VR advances. I enjoy doing live surgery for the learner's benefit as I have done at Srilanka, Malaysia, Indonesia, Dubai, etc. I travel a lot also because I can also learn newer techniques and have others benefit from my personal experience. Wherever I did live surgery I got an overview of the status operated and referring complicated patients. I am often reminded by those around me of losses incurred by extensive travel viz salary, overhead expenses, pressure of paying back loan installments, expense loss through foreign exchange, it still seems worthwhile to me much to the chagrin of others!

***In the present days of alluring and high profile era of cataract and refractive surgery, what compels you to persist in excelling in vitreo retinal management?***

The profession of Vitreoretinal surgery has given me name, fame, money, respect, guru & sishya relationship, status in the society and everything in life. As I mentioned earlier I adore and worship VR surgery. Whenever any of my patients remark on my youthful appearance (which is quite often!!) which seems to be in stark contrast to the experience I profess to have I quote Robin Sharma: "Positive thinking, enjoy every moment in whatever work you do and move with the nature as often as possible".

Having had the thrill of exclusive and challenging VRS Cataract and Refractive surgery seem monotonous procedure in comparison. Robotic cataract & refractive surgeries are not far away since the steps are so standard and similar. However when it comes to VR surgery the surgical anatomy is always changing. Every time one needs to learn something new & unlearn some earlier lesson. Advanced VR surgery has a

very significant role in the management of ocular.

The tremendous possibilities and advances in VR surgery started *in* with open sky vitrectomy in early 1970 later, 20G vitrectomy recently sutureless vitrectomy, usage of perfluro carbon liquid, gases etc and performing bi-manual VR surgery are limitless. Frankly I enjoy being one of the few, exclusive VR surgeons in India. My love for VR has prompted me into research areas like artificial retina along with IIT in Mumbai and Bombay Veterinary College, Stem cell research for regenerative medicine with NICHI-IN Centre for with the Headquarters of Yamanashi University Japan.

***In the recent past, which development, you consider that has most significantly contributed to the investigative and management of vitreo-retinal problems and what is your futuristic outlook on the basis of ongoing trials and researches that may revolutionize the therapy in this specialty.***

In the recent past development of investigations like Optical Coherence Tomography [OCT], Indocyanine Green [ICG], Multifocal electro retinography [MFERG], Multifocal visually evoked potential [MFVEP], Preferential Hyderacuity Perimeter [PHP] are investigative for macular and retinal conditions. In management – introduction of stureless 25G, 23G vitrectomy. In medical management pharmacological agents – anti VEGF is a major contribution in the management of age related macular degeneration (ARMD).Combination of various anti VEGF like Bevacizumab, Ranibizumab, Triamncinolone, and PDT. The most futuristic is development of the artificial retina and stem cell research. Many blind patients (not all) may be helped.

***Being involved in both worlds of corporate perspective and academic point of view, which one, do you think, will influence your future career?***

I agree I am involved in the world of corporate perspective and in academic point of view and also charitable activity through charitable trust. The idea is to put all these perspectives together and create an international center of excellence in Ophthalmology and to achieve the goals of Vision2020.

***Looking back, after several firsts in your endeavours, what do you think is the foremost accomplishment in your efforts that gives you soul satisfaction and why?***

Besides many firsts in my VRS, my foremost accomplishment giving satisfaction is establishing the biggest eye hospital in Mumbai. Being able to do free eye surgeries including cataract, glaucoma, etc. to the under privileged patients, conducting camps, academic research and teaching brings the greatest satisfaction for me.

During the inauguration of AJEH in 2004 the then Chief Minister of Maharashtra, Honorable Shri Sushilkumar Shinde commented **(I quote: ". . . That you has grown in spite of competition, jealousy and created a big eye hospital, is really a great feat "**. Ms Aishwarya Rai who inaugurated our eye bank and after learning of our charitable services, actively took interest in our projects and accepted my personal invitation without any hesitation. My approach as the corporate hospital with charitable activities and R&D which gives me greatest satisfaction as a human being who cares for the needy.

***Pursuit in excellence in vitreo retinal management, high quality and high tech services and active involvement in academic career, what is next??***

To write text books on Ophthalmology and preaching positive thinking. I am also enjoying spirituality, as good servant of God, through counseling patients. I am involved in various medical and non-medical organizations. Managing Committee member in Association (BMA) elected as Chairman, Conceptual Forum, I have to arrange programme for CEOs of Mumbai the corporate capital of India. I am also contesting election at Shanrnu Khananda Fine Arts Club where I work for fine arts. The next thing I would like to do is to make a corporate AJEH all over India, Middle East and Africa. I am still enjoying simplicity; continue free treatment, research activities, training, education, etc. Enjoy life as I do now, enjoy greenery (daily climbing Yeoor Hills at Thane with my good friend Thiru D. Sivananadan, Thane Police Commissioner!!) to be with nature, work sincerely, maintain good health and enjoy dancing (!!).

I would like to follow President of India, Prime Minister. Both of them mentioned that spirituality and science is convergent. Hence I have to practice science and spirituality. My ultimate aim is to succeed in Ophthalmology and receive "NOBEL PRIZE" which will be a contribution to humanity. After a level, achievements do not have value personally. Achievements are for the group, team involved with you. Hence, I dedicated all the achievements to Matha, Pitha, Guru & God and all at Aditya Jyot family. The real enjoyment is dedicating your life for alleviating blind in India and the world.

My Late Mentor (*maanaseega Guru*), G. Venkataswamy rightly said: "The Meenakshi Temple, Dr. GV points out was not started and finished by one ruler. It was a work of love and faith and vision that spanned a whole succession of rulers and several generations. And yet it has maintained its integrity. Hundreds of years since its beginning it draws more and more barefoot pilgrims with each passing year. Temples are not

built for individuals or by individuals. They are created for all humanity by a band of skilled and dedicated workers. And the result is a living, timeless gift to the world. And it can be the same, says Dr. GV, with institutions like Aravind." Since I am also born in Madurai, I follow the same sentiments of Dr. GV!!

***You have twice the Chairman of Scientific Committee of All India Ophthalmological Society and also you have been the frequent participant of several international ophthalmic conferences. What is your considered opinion of the standard and quality of proceedings of the Indian conferences as compared with International meets? Please elaborate.***

Yes, I am happy that AIOS members elected me as Chairman Scientific Committee for a second term with a record margin of 822 votes and another pleasant surprise is, our Honorable President of India, His Excellency Dr. A.P.J. Abdul Kalam called me ~ over phone from Delhi and congratulated me for the same!! The standard and, quality of Indian -conferences are par excellence when compared to international meets. From few collections of past 10 abstract books, you can see the quality of Abstract books, instruction courses, free papers, videos; posters, etc are improving gradually. I have been able to include American Academy of Ophthalmology [AAO], European Society for cataract & refractive surgery [ESCRS], Ophthalmological Society of Pakistan, Royal College of Physicians and Surgeons of Glasgow, Academia Ophthalmologica Internationalis [AOI], American Society of Retina Specialists [ASRS] symposia at the All India Ophthalmological Society [AIOS] annual conference. I also represent India in AAO Leadership development in Hyderabad conference. The number of ophthalmologists attending our conference has steadily increased. The competition for sending papers, etc. has also increased. This year we received more than 1,400 abstracts (including videos) when is comparable to American Academy of Ophthalmology [AAO]!!1. We have also enhanced peer review of all presentations. Scientific Committee makes sure that most of the young talent in the country is used. After attending our AIOC2006 Annual Conference at Bhopal, Dr Mike Brennan, American Academy of Ophthalmology [AAO] International Envoy visited my scientific committee office at the conference venue and penned his comments: "No good things happen without hard work and I have been extremely impressed with your organization of the annual conference. Thanks for the friendship. The AAO is proud to be your Partner in Global relations to benefit our patients and our profession.. Symposia incorporated a wide variety of highly technical and sophisticated clinical subjects as well as humanitarian dimensions in the preservation of vision and disaster response. The geographical spectrum of attendees included ophthalmologists from other parts of Asia, Europe, and the Nigerian delegation sponsored in your Twinning relationship. Discussions regarding AAO resources, leadership development and "affiliate" membership were encouraging".

Thank you.

*Thamizhan endru sollada Thalai ne-mirnthu Nillada*

Dr. S. Natarajan  
ajeh@vnsi.com