From the President’s Desk

Dear Friends,

Once again, it is a pleasure writing colleagues about third issue of VRSI newsletter. Information technology has changed the way we care for our patients. In tune, Aditya Jyot Eye Hospital has launched an application compatible with IPAD, IPHONE and Adroid based other phones, Kudos to Dr S Natarajan. Truly, smartphones had made the difference in life of an ophthalmologist. Once again there is resurgence in indications of ICG in diagnosis and management of uveitis, the editorial by Dr Manish Nagpal in this issue is just apt. Article by Dr Avinash Pathengay on prophylaxis of endophthalmitis after intravitreal injections is of concern to every vivid reader of this issue. As usual this newsletter is a medium to apprise entire vitreoretinal fraternity about the enormous contributions by a divine soul Prof. Namperumalsamy who changed the concept of eye care in India. We all salute his achievements in developing Arvind Eye Care system. As you know, our next annual conference is at Guwahati, Assam on 6-8 Dec., 2012. I am confident this annual meeting surely change the way we all manage ARMD, Diabetic Retinopathy, Retinal vascular occlusions and adverse events in vitreoretinal surgery. The Governing Council of VRSI has invited Dr JK Ambati-Kentucky for prestigious Nataraja Pillai oration and Dr Taraprasad Das- LVPEI, Bhuveneswar for Dr S S Hayreh award Lecture. I hope the XXI Annual VRSI meeting steared by Dr Harsha Bhattacharjee and Dr Satyen Deka will be most highly attended and delegates would love the destination and the scientific contents of this meeting. For the time being enjoy reading current issue of the newsletter.

With Best wishes

Dr. Gopal Lal Verma  
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EDITORIAL

Smartphones for the Ophthalmologist

Technology has always made our lives easier. The recent trend of smartphones and its various applications have got this uncanny ability to enter every walk of life and the ophthalmologist is no exception. Whether you own an iPhone, Blackberry, or equivalent, smartphones are valuable assets to ophthalmologists. Some polls estimate that 1 out of every 2 physicians utilizes a personal digital assistant (PDA) or smartphone and its expected that this number will continue to rise. However, the iPhone (Apple Inc., Cupertino, CA) stands out among other phones because of its unique interface and its vast supply of third-party add-on software.

Smartphones are multifunction electronic devices that can be used to perform photography and videography, Internet browsing, data sharing, listening to music and watching movies. Currently, smartphones are being utilized by 64% of U.S. physicians, and this number is projected to reach 81% in 2012. As ophthalmologists, we have the ability to use smartphones in countless areas of practice and education. Potential functions of smartphones in ophthalmology can be divided into the broad categories as Testing Tools, Patient Education Tools, Physician Reference Tools, Physician Education Tools, Calculators and Other Office-Based Tools.

Available tools are near-vision cards, color vision plates, a pupil gauge and ruler, a fluorescein light, a pen light, pediatric fixation targets, a Worth 4 dot test and accommodation targets, Amsler grids, red desaturation tests and an OKN drum simulator (See Figure 1). Several new testing tool applications for smartphones have been and are being developed. Eye Test, Eye Chart, EyeChart RandomEyes, Eye2Phone, and Fast Acuity Life are just a few examples. The new application for the iPhone is called the "Eye Handbook" (available on iTunes — or free at http://www.eyehandbook.com). This application is one of the most comprehensive ophthalmology applications available and provides most of the above-mentioned examination tools.

Smartphones can combine many commonly used clinical evaluation and educational tools into one easy to use, portable interface. While these tools will not replace office-based testing under ideal conditions, with appropriate standardization and acceptance of some testing variability, these tools can be particularly useful, especially in the setting of inpatient consults and emergency room visits.

The Interactive Digital Atlas of Retinal Disease is a textbook that contains more than 2,500 high resolution digital retinal images which are taken from the most recent digital retinal photography cameras. These images are now available as an iPad or iPhone application (app).

Dr. Salmaan Qureshi, who created the Retinal Atlas HD app said: "With the iPad platform we were able to create an application and disseminate this much specialised information to the world, to those eye health professionals who will never be able to set foot in institutions that teach it. Those professionals using the iPad and iPhone app can diagnose these very rare diseases, using the latest peer reviewed medical..."
evidence straight from the NIH via Medline.” I have personally used this application on the iPad and have found it really useful for using it as teaching tool as well as showing the various retinal conditions to the patients.

Patient education is always an important part of effective practice and the smartphone provides us with the just so perfect milieu to give it to our patients. In the ophthalmology patient education, one very useful application available at the iTunes store is the Eye Handbook. With the Eye Handbook patient education material, we can e-mail the patient the required education material right from our phone, which is a great feature.

Another feature which is packed into the smartphone is the increasing quality of photographs which can be captured with it. Some smartphones have digital camera with a pixel quality of 8 megapixel which can rival any other professional quality camera in terms of picture quality. In non-ideal clinical settings, such as in the emergency room, a smartphone can be used to document external photographs of the eye, slit lamp pictures of the anterior segment, fundus biomicroscopy and indirect ophthalmoscopy findings. The iPhone also has the ability to capture video.

The next feature which the smartphones would have is the integration of the system with the Electronic Medical Records (EMR) platforms. It requires long hours to be spent with programmers to make the system more Mac-like. It would be very conjectural to imagine what Steve Jobs would have done, if he were alive, on the present scenario of integrating the EMR platform with the iPhone. As Steve Jobs had said in his May 1998 Business Week Interview, “You have to work hard to get your thinking clean to make it simple. But it's worth in the end because once you get there, you can move mountains.”

The adage, “necessity is the mother of invention” fits almost like a piece in the jigsaw puzzle, where each and every aspect of the ophthalmologists' everyday practice and its relation to patient care and education would be covered eventually by the smartphone. With more improvement in the interface of smartphones in the pipeline, the ophthalmologists can always look forward to have their lives simplified as far as patient care and day to day practice is concerned.

As Steve Jobs had beautifully said “I like living at the intersection of humanities and technology”, I don't think there is anything different we ophthalmologists are doing when we use our smartphones in our daily practice.

References

EDITORIAL

Combined FA, ICG and OCT features of Posterior Uveitis

Dr Manish Nagpal MS, DO, FRCS

Fluorescein angiography (FA) remains, since its inception, nearly mandatory for
diagnosis and management of a large number of retinal disorders. It abets in
visualization of the retinal and choroidal vasculature. FA is valuable in accurate
imaging of the retinal circulation. Furthermore, it allows identification of the
leakage sites of the small fluorescein molecule in pathological states affecting
the retinal vasculature. However, its obvious inherent limitations towards
imaging of the choroidal circulation led to the development of infrared
angiography using indocyanine green (ICG) dye, which was introduced in 1980’s.
ICGA images have been helpful to know histopathology for some of the diseases
such as serpigenous choroiditis, Vogt-Koyanagi-Harada disease, sympathetic
ophthalmia and birdshot chorioretinopathy. Indocyanine green angiography
shows occult choroidal lesions not shown by fundoscopy and/or fluorescein
angiography.

It is known that both studies are needed for diagnosis and localization of difficult
cases. Single combined intravenous injection of fluorescein and ICG dyes can be
used to get both images, it needs a special system with both FA and ICG excitation
systems, which is possible with Heidelberg retinal angiograph (HRA) (Heidelberg
Engineering Inc., Heidelberg, Germany).

HRA has an added advantage of simultaneously carrying out the OCT with FA or
ICG. It gives an additional information of the pathology. The ability to scan
images at 40 kHz helps reduce eye movement artifacts and increases patient
comfort, providing cleaner images. TruTrack image alignment technology
provides eye tracking and guiding of the SD-OCT. This feature aligns images in the
same exam and finds the same location in subsequent exams to track subtle
changes over time.

Patient and methods:
We prospectively carried out imaging using Spectralis to correlate simultaneous
FA, ICGA, AF and SD-OCT characteristics in cases of posterior uveitis. 38 eyes of 22
patients of posterior uveitis underwent imaging using Spectralis from
September 2010 to August 2011. Patients with different uveitic entities were
included (Table 1).

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<td>Serpiginous choroiditis</td>
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Results:
Features at baseline
FA characteristics in case of choroiditis include -
- In early phase, new lesions block the background fluorescence.
- In due course leakage of dye appears in and around the active lesions.
- Staining in healed lesions
- Window defect in previously scarred lesions
Indocyanine Green angiography is useful for identification and staging of new active lesions of serpiginous like choroiditis. The area of choroidal nonperfusion seen by ICG during the acute stage is generally larger than the corresponding clinically observed retinal lesions. The ICG is also useful in detecting subclinical or persistent choroidal nonperfusion even when the signs of retinal activity have disappeared.

ICG in VKH disease shows (1) early choroidal stromal vessel hyperfluorescence and leakage, (2) hypofluorescent dark dots, (3) fuzzy vascular pattern of large stromal vessels(4) disc hyperfluorescence and (5) pin point hyperfluorescent dots.

OCT in cases of VKH shows serous retinal detachments which corresponded with leakage in fluorescein and ICG angiography. Other findings include focal atrophic areas, subretinal fibrosis and cystoid macular edema.

Features at followup
We noted following features in spectrals:
1. Segmentation of the confluent hypofluorescent lesions in ICG noted during the active phase(figure 1).
2. Peripapillary elevation in OCT during the active phase which resolved following treatment.(Figure 2).
3. Hyporeflectivity in choroidal region in OCT corresponding to hypofluorescent dots in ICG during the active phase(Figure 3)
4. Hyporeflectivity in OCT corresponding to active region noted in FA (Figure 4)
5. Hyperfluorescent dots adjacent to disc in ICG were noted (Figure 5).
6. Reduction in hyperautofluorescence in the resolving phase(Figure 6).

Conclusion
Simultaneous OCT, FA and ICG reveals more features related to diagnosis as well as response to treatment of lesions in cases of posterior uveitis. Combination of these modalities allows us to look at the anatomical and functional aspects simultaneously and would go a long way in helping us assess the success of treatment regimes as well as monitoring the progress in the long term more effectively.
"APVRS-VRSI 2011 Conference"

The VI Asia-Pacific Vitreo-retina Society (APVRS) Congress in conjunction with the XX Annual Conference of the Vitreo Retinal Society—India was successfully conducted from December 1-3, 2011 at Hyderabad. The Congress was held in the peaceful surroundings of the Deccan Plateau at the state-of-art Hyderabad International Convention Centre (HICC). There were over 800 delegates from 35 countries who had the opportunity to visit India and Andhra Pradesh. 25 national and multinational companies participated in an international level trade exhibition and included medical and surgical equipments where the delegates could have hands-on experience of the latest and some of the best technologies available anywhere in the world.

Scientific content of the program was a treat to all! Sixteen very well attended Symposia with 6-8 eminent national and international speakers in each symposium, totalling 71 presentations, encompassing the ever expanding field of Vitreo-retinal diseases were conducted under the organisational skills of eminent national and international Chairpersons and moderators. Additionally, a total of 179 posters, 35 free papers and 17 videos were presented. The lunch and breakfast sessions were peped up with additional company sponsored Seven symposia treating the delegates to the latest updates!

The prestigious APVRS Tano Lecture was delivered by Prof. Alexander Brucker, from USA and he gave a well researched talk on history of the subspeciality. Dr Carl Claes from Netherlands delivered the VRSI- Nataraja Pillai Oration on Paediatric Vitreo-retinal Surgical techniques while Prof Amod Gupta, from Chandigarh, India gave the VRSI-Patnaik Oration Award lecture on Tuberculosis in the eye. Prof P Rama Rao, a highly acclaimed Physicist and Metallurgical Scientist and currently Chairman ARCI, Hyderabad was the chief guest at the inauguration on Dec 1st. His address to the gathering where he talked about the current growth and future directions to research in Science and technology in India was very thought provoking and inspiring.

The congress achieved the distinction of being the most attended Vitreoretinal meeting of both the participating societies. The Crowning glory was the unique, seamless interaction between the members, organisers and the ever present enthusiastic volunteers of the two societies which made the Congress a truly wonderful experience for all. This resulted in achieving a great networking opportunity for the experts and was of particular benefit to students and fellows in paving the road for their future career aspirations.

Besides the wonderful scientific fare, this Congress also provided social and cultural Hyderabad- Indian experiences to the delegates. They experienced classical, folk and popular music and dance in the evenings, savoured the gastronomic delights of the region, the beautiful Henna (Mehndi) for the ladies, shopping for Indian handicrafts and the well known pearls of Hyderabad in the trade exhibition; and of course for the enthusiastic travellers, city tours to historical sites like Golkonda, Charminar, Salarjung museum etc.

All in all the overwhelming scientific and social programmes left the delegates and organisers wanting for More! Beautiful moments captured in slides and videos can be viewed at www.vrsi.org and www.apvrs.org
“APVRS-VRSI 2011”
Message from Convener Scientific Committee...

After the excitement of the joint meeting of APVRS-VRSI last year, it is time to plan for our 21st meeting in the city of Guwahati. This gives all of us an opportunity to visit the North eastern India, which has such natural beauty and its own unique identity.

The abstract submission is entirely online this time. Free papers, Posters, videos and challenging cases are the categories that are open for submission.

The top 12 free papers by the members will be in the JM Pahwa session for the prize. This time we are accepting video submissions on the theme of 'complications'. So do send in your submissions in good numbers.

Dr Balakrishna Ambati, renowned for his work on angiogenesis will deliver the 'Nataraja Pillai Oration' this year.

Dr Taraprasad Das will deliver the 'Hayek lecture'.

Prof. Taigi Sakamoto, Professor and Chair, Kagoshima University, Kagoshima, Japan will be the international participant this year.

During the visit to Guwahati, we were very much impressed by the enthusiasm and the commitment of the local organizing committee. I look forward to seeing you in large numbers for the meeting.

Dr. N. S. Muralidhar
Convener Scientific Committee

Message from Honorary Secretary...

Dear Colleagues,

Greetings from the Vitreous Retinal Society-India!

This is the first newsletter that we are bringing out after a very successful conference held in December 2011 at Hyderabad.

The APVRS and the Xth Annual Conference of the VRS-I held in Hyderabad was indeed a great success. Thanks to the excellent organizational skills of Dr Subhadra Jalali, Dr Raja Narayanan and their team; everything was meticulously arranged at the world class Hyderabad International Convention Centre. The attendance also was extra-ordinary.

We have now started working on the next annual meeting of the VRS-I which will be in Guwahati on 6th, 7th and 8th of December 2012. The official website for the conference www.vrsl2012.com is already uploaded and this site is linked to our official website www.vrsi.in. Dr Satyen Deka is the organizing secretary for this conference. For any further details you can send a mail to Dr Satyen Deka (drsatyen@hotmail.com).

The first CME program this year under the aegis of the VRS-I will be held at Patna on 11th & 12th August 2012. Dr. Saurabh Sinha is organizing this meeting for Ophthalmologists in the State of Bihar.

Our total membership has crossed 555 and this year also we have been receiving applications for new membership on a very regular basis.

Diabetic Retinopathy is an important cause for preventable blindness in our country. As you all might agree, we still do not have any broad based screening program for early detection of Diabetic Retinopathy and also for educating patients with diabetes about the implications of diabetic retinopathy. The Vitreous Retinal Society-India is seriously planning to start a nationwide program conducting workshops for healthcare workers, primary care physicians and comprehensive ophthalmologists on this particular aspect so as to increase awareness of diabetic retinopathy among patients with diabetes mellitus. A broad format of this project is as follows:

Diabetic retinopathy program of VRSI

Objectives
1. To raise awareness about Diabetes and Eye in the public
2. To educate Family physicians and Physicians about DR and importance of screening
3. To educate Diabetologist, Nephrologist, retina and Cardiologist about DR and screening for DR
4. To educate ophthalmologists about the various aspects of DR and update their knowledge, so that they can refer at appropriate time
5. To train general ophthalmologists in the basic medical retina

1. General Public
   1. Prepare brochures on DR that can be kept anywhere - clinics, optical shops, pharmacies, hotels, malls, airports, railway stations, bus stations etc.
   2. Prepare posters that can be displayed at the above places
   3. Use the media to spread awareness

Have events like walks, runs etc to highlight the importance

2. Physicians and others
   1. Posters for putting up in the clinics, consulting rooms
   2. Conduct CME programs of update on diabetic Retinopathy
   3. Try and take part in the annual meeting of the respective societies to get some time for these updates.

Ophthalmologists
1. Have a regular CME on update on DR in every district once a year.
2. Develop short term training programs for imparting skills in diagnosis and treating DR
3. Try to have one session in various state annual conferences on DR
4. Make the Dr's brochures available to them for distribution in their hospitals/clinics

I would like all VRS-I members to give serious thoughts to this particular issue and come back with suggestions regarding its implementation and send your suggestions to the following email address. (giriye@vrsni.com). If each one of us can conduct a small program in our place of work I am sure the overall impact would indeed be substantial.

With all good wishes,

Sincerely

Dr. A Giridhar
Honorary Secretary
Are topical antibiotics necessary for prophylaxis in prevention of endophthalmitis following intravitreal injections

Abhishek Bawdekar MS
Avinash Pathengay FRCS
Harry W Flynn Jr MD

The use of peri operative antibiotics to prevent endophthalmitis in patients undergoing intravitreal injections is controversial. Topical antibiotics before the day of injection do not reduce conjunctival bacteria counts more than immediate pre injection use of povidone–iodine and have not been shown to reduce the rate of post injection endophthalmitis; if endophthalmitis does develop, pre injection antibiotics could theoretically increase the risk of resistance of the causative organism. Therefore, pre injection antibiotics before the day of injection are not generally recommended. Additionally, many practitioners are tending away from routinely dispensing post intravitreal injection antibiotic prophylaxis, and large clinical trials suggest they may not be necessary. For those choosing to prescribe post injection antibiotics, many issues must be considered when selecting the antibiotic, including susceptibility patterns, cost, rapidity and duration of activity, and toxicity. A recent analysis of antibiotic susceptibility patterns among conjunctival isolates from patients undergoing intravitreal injections found most organisms to be sensitive to gentamicin (≥85%) and vancomycin (100%) and fewer isolates to be sensitive to fluoroquinolones, with resistance rates to ciprofloxacin, levofloxacin, and gatifloxacin being 42%, 39%, and 22%, respectively. Others have commented on the high rates of fluoroquinolone resistance observed among bacterial isolates from patients with endophthalmitis and such resistance appears to be increasing. Post injection antibiotic may not reduce the incidence of endophthalmitis. A retrospective review comparing cohort of patients receiving topical antibiotics following intra vitreal injection and another group not receiving topical antibiotics following intra vitreal injection found no difference in the incidence of endophthalmitis between the two groups. On the contrary frequent administration of topical antibiotics has been associated with the occurrence of multidrug resistance in bacterial flora found in the conjunctival sac. Therefore if the clinician decides to use antibiotics, polymyxin B/trimethoprim or gentamicin may be reasonable choices for peri intravitreal injection antibiotic prophylaxis at this time.

In conclusion pre injection instillation of 5% povidone iodine remains the best prophylaxis to prevent endophthalmitis following intra vitreal injection.

References:
LIVE SURGERY IN CHENNAI: RETION 2012
A Message by Dr. J. Fernando Arevalo

I would like to thank Prof. Dr. S. Natarajan is the Editor in chief of e-Newsletter of Vitreo Retina Society of India (VRSI) and Dr. Navendu Rai Associate Editor- VRSI e-Newsletter for the invitation to write an article for this issue. I had the honor to be the International Speaker at the II Dr. Agarwal’s Retina Foundation RETICON meeting held at Le Royal Meridien Chennai Hotel in Chennai, India on May 6, 2012. It was a superb meeting, very well attended (Fig. 1), with very high scientific quality, excellent speakers from all over India, and wonderful hosts: Dr. Amar Agarwal (Chairman of Dr. Agarwal’s Eye Hospital & Eye Research Centre), and Dr. Athiya Agarwal (Director of Dr. Agarwal’s Eye Hospital & Eye Research Centre). In addition, I had the opportunity to chair the live surgery session, the highlight of the meeting! I was very impressed with the quality of the surgeries performed and the images we were getting from the OT at Agarwal’s Eye Hospital. Four live surgeries were performed:

Live surgery 1- It was a macular hole case by Dr. Sujith Gharai from Dr. Agarwal Eye Hospital in Chennai utilizing the Constellation vitrectomy system with a 23-gauge chandelier. The 23-gauge chandelier gives a much broader field of illumination especially suitable for live surgery and videos. Dr. Gharai used brillaint blue G (BBG) after a fluid-air exchanged to increase the concentration of the vital dye. Internal limiting membrane (ILM) peeling was performed with a forceps with a masterful technique.

Live surgery 2- It was a tractional retinal detachment (TRD) case by Dr. Nilesh Kanjiani from Dr. Agarwal Eye Hospital in Bangalore utilizing the Constellation vitrectomy system with a 25-gauge chandelier. The case was a simple one. However, Dr. Kanjiani ended up by performing a very skillful peeling of the ILM using BBG to treat macular edema. Quite important for the audience to see these two surgeons’ excellent ILM peeling technique.

Live surgery 3- It was a case of Glued IOL by Dr. Soosan Jacob from Dr. Agarwal Eye Hospital in Chennai utilizing the Stellaris PC. She performed a beautiful surgery following every step of the way the technique described by Dr. Amar Agarwal. The surgery was flawless and demonstrated the surgical skills of Dr. Jacob. This wonderful technique will help thousands of patients worldwide. Dr. Agarwal has popularized and refined this technique over the years (2007) and deserves all the credit.

Live surgery 4- It was a case of a retinal detachment with a giant retinal tear by Dr. S. Natarajan (Fig. 2) from Aditya Jyot Eye Hospital in Mumbai utilizing the Constellation vitrectomy system with a 25-gauge chandelier. I was amazed with the ability of Dr. Natarajan to perform a case with a folded retina, giant tear, and proliferative vitreoretinopathy (PVR) in 20 minutes. He did not need/place a buckle and used perfluorocarbon liquid to stabilize the retina and work his way through the folded retina with "massage" until it was completely flat up to the Ora Serrata. India is a wonderful country, with natural beauty, amazingly rapid development, rich spirituality, immense hospitality, and fantastic surgeons. I am looking forward to visiting again!

J. Fernando Arevalo, MD FACS
Executive Vice-President of the Pan-American Association of Ophthalmology
Chief of Vitreoretinal Division, Senior Academic Consultant
The King Khaled Eye Specialist Hospital, Riyadh, Kingdom of Saudi Arabia
Adjunct Professor of Ophthalmology Wilmer Eye Institute
The Johns Hopkins University, Baltimore, MD, USA

Legends
Fig. 1. More than 400 attended the II Dr. Agarwal’s Retina Foundation RETICON meeting held at Le Royal Meridien Chennai Hotel in Chennai, India on May 6, 2012.

Fig. 2. Inauguration of the Reticon conference by lighting of the lamp by Dr. S. Natarajan from VRSI and Aditya Jyot Eye Hospital in Mumbai. From left to right: Dr. S. Natarajan, Dr. Athiya Agarwal (Director of Dr. Agarwal’s Eye Hospital & Eye Research Centre), State Minister of Tourism of India Ms. Gokula Indira, and Dr. Amar Agarwal (Chairman of Dr. Agarwal’s Eye Hospital & Eye Research Centre).
Tribute to living legend : Dr Namperumalsamy

Dr. P. Namperumalsamy born in 1939 in a small village ‘Ambasamudram’ - in Theni District, Tamilnadu. His father was a farmer and village leader. According to his father’s guidance he entered into medicine and graduated Postgraduate Degree in Ophthalmology from Madras and Madurai Universities. Under the guidance of Dr. G. Venkataswamy who used to be ophthalmology professor during MBBS became his guide and mentor. Dr. P. Namperumalsamy underwent medical retina fellowship training in 1972-73 with Dr. Gholam Peyman and Dr. Morton Goldberg at University of Illinois, Eye and Ear infirmary. He further did his surgical retina fellowship under the expert guidance of none other than Dr. Charles Schepens in 1977-1978 at Retina Associates, Boston.

He had the privilege of being the first fellow at Illinois, to be involved in the landmark DRS study (Diabetic Retinopathy Study) conducted. Dr. Stanley Chang was the resident and close friend during his training at Illinois.

It was at Dr. Nam’s request, Dr. Gholam Peyman brought his first vitrectomy prototype “Vitreophago” to Madurai and conducted India’s first ever course on vitrectomy in 1974. All the India’s leading first generation vitreo retinal surgeons have undergone this course organized by Dr. Nam at the Madurai Government hospital then. He was then on regularly conducting VR training courses at All India Ophthalmological Society conferences. The first ever vitrectomy in India was conducted at Madurai.

On a historical perspective, he travelled to Ahmedabad along with the Peyman’s Vitreophageto perform vitrectomy on one of the close associates of Mahatma Gandhi in Ahmedabad on invitation of Dr. P. N. Nagpal.

Under his guidance vitreo-retina fellowship was started in Aravind Madurai in 1980’s and today his fellows are heading many leading vitreo-retinal departments all over the country. He has seen through the evolution of vitrectomy from single to multi function probes. He was the pioneer in indigenizing silicon oil and perfluorocarbon liquid making it easily available to all in India.

His passion for preventing needless blindness due to diabetic retinopathy has driven him to develop many projects in Diabetic retinopathy. He has with the help of Government of India has set up the Center of Relevance and Excellence (CORE) in Diabetic retinopathy. With the help of the Lions’ International he has established the model for screening for Diabetic retinopathy. This model is now being followed by many centers in India and other developing countries. The program has stimulated exploration into the feasibility of manufacturing lasers and ophthalmoscopes for treating the Diabetic Retinopathy patients.

His special interest is focused on fighting against the vision impairment due to diabetic retinopathy. Diabetes related eye diseases have been given priority under the WHO assistance Vision 2020 programs. He has launched a number of community awareness projects related to Diabetic Retinopathy.

He is the Founding Member of the Govel Trust, which runs the Aravind Eye Hospitals and Postgraduate Institute of Ophthalmology in Madurai and five other centres. This Institution performs more than 200,000 eye surgeries per year. i.e., about 45% of the entire State Blind Relief work and 4.8% in India. He currently holds the position as Chairman Emeritus and Professor of Ophthalmology at the Aravind Eye Care System.

Under his leadership, Aravind eye care system received the prestigious awards such as ChampaPaimaaward for research, Conrad N Hilton’s Humanitarian Award, Gates award by Global health council.
He was recognized as one among 100 most influential people in the world by the Time magazine (May, 2010, New York Time) at New York.

He has been involved many research projects as Principal Investigator and published research papers in the renowned journals which includes Eales' Disease, the first of its kind in India.

He has set up I.T. enabled Vision Centres in rural areas and established Aravind Virtual Ophthalmic Academy and has taken a leading role in the establishment of Dr. G. Venkataswamy Eye Research Institute. Today he spends most of his time in the development of this research institute which is today as seen as one of the best research institute for the eye and also attracting many of the young Indian researchers abroad to come back to India.

Dr. Nam is considered as one of the best teachers in the Ophthalmology by all his students.

**Awards & Accolades:**

1. **Padmashree Award** – by Govt. of India, 2007
2. **Dr. B.C. Roy Award** for the year 2006 in the category of “Eminent Medical Teacher” – by Medical Council of India, New Delhi
4. **Fellow in National Academy of Medical Sciences**, (FAMS) New Delhi, March 2000
6. **LIFETIME ACHIEVEMENT AWARD** by the All India Ophthalmological Society for the year 2007.
7. **Achievement Award by the American Academy of Ophthalmology** for the year 2006
8. **The TNOA Lifetime Achievement Award 2010** towards his contribution to the science of ophthalmology and the TNOA – by Tamilnadu Ophthalmic Association, August, 2010
9. **BEST TEACHER AWARD** on 12th September 1998 at Hyderabad by the Andhra Pradesh Academic Sciences.
11. **Dr. P. SIVA REDDY Oration Gold Medal** - Recent Concepts on Aetiology and Management in Eales' Disease - All India Ophthalmological Conference Kanpur in 1986.
15. **Dr. R.V. Rajam Oration Award** – by National Academy of Medical Sciences, Diabetic Retinopathy – An emerging problem in India” at the 43rd Annual Conference of National Academy of Medical Sciences (India) at Jaipur, April 2004.
16. **Health Care and Life Sciences Award 2008** – by the Ernst & Young Entrepreneurship, Mumbai 2008
NATARAJA PILLAI ORATION

The Governing Council of the VRS I is charged to select, every year, a Vitreoretinal surgeon of international repute, who has performed "An experimental or clinical work which gives a new contribution to the field of Vitreoretinal Surgery. This honour, the Nataraja Pillai Oration, is awarded annually during the Annual Conference of the Vitreo Retinal Society - India.

Dr. Subramanya Nataraja Pillai was born on March 1st 1900 and studied at St. Johns College, Palayamkottai, Tirunelveli District, Tamil Nadu, during the British rule in India. During the period 1938-1942, he was trained at the Govt. Ophthalmic Dr. Subramanya Nataraja Pillai was born on March 1st 1900 and studied at St. Johns College, Palayamkottai, Tirunelveli District, Tamil Nadu, during the British rule in India. During the period 1938-1942, he was trained at the Govt. Ophthalmic Hospital (Estd. 1819), Madras, the 2nd oldest Eye Hospital in the world, second only to Moorfields Eye Hospital, London, UK, by none other than the legendary Lt. Col. R.E. Wright, an authority on Tropical Ophthalmology and the person who started the Museum in Ophthalmology at GOH, Chennai.

The hospital, now known as the Regional Institute of Ophthalmology - Govt. Ophthalmic Hospital (RIO-GOH), is also where his son Dr. N. S. Sundaram, obtained his M.S.(Ophthalmology) and later went on to become the Director & Superintendent of RIO - GOH during the period Nov 1984 - Jan 1987. Later, true to family tradition, his Grandson Dr. S. Natarajan too trained at RIO - GOH from 1982-84.

Dr. S. Nataraja Pillai pursued the L. M. P. Course at Tanjore Medical School and joined Govt. Medical Service as Sub assistant Surgeon in Tirunelveli in the earlier period. He had great interest in hunting and also represented the college hockey team. As per the then British laws, one had to serve 3 years (1½ years - jail duty and 1½ years - Agency duty) and the person would be posted at his native place during the last five years of service. Therefore, Dr. S. Nataraja Pillai served all the three years of service as agency duty at Boipariguda in Koraput, Garjam, Dt.(Orissa); which was in the then Madras Presidency. After the Agency duty, he was posted as Sub - assistant Surgeon at GOH, Madras in 1938 as a Pathologist.

He studied and obtained Licentiate in Ophthalmology (L.O.) in 1939 and continued to serve in all the departments of GOH till 1943. He worked in Govt. Erskine Hospital, Madurai from 1948 to 1951 and then continued private practice till his demise at Madurai. An Ophthalmic surgeon par excellence, he was one of the pioneers to conduct eye camps at Virudhunagar and Dindugal with the help of TVS family. He was a member of LIONS Club and worked as a Hon. Magistrate for two terms. He was blessed with two sons, two daughters and 14 grandchildren.
Welcome to Jaipur, India.

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