



ARAVIND

ACTIVITY REPORT 1999

Aravind Eye Hospitals
& Postgraduate Institute of Ophthalmology

Lions Aravind Institute of Community
Ophthalmology

Aravind Centre for Women, Children and
Community Health

Aurolab



The cycles of the infinity of desire
And the mystique that made an unrealised world
Wider than the known and closer than the unknown
In which hunt for ever the hounds of mind and life.
Tempted a deep dissatisfied urge within
To long for the unfulfilled and ever far
And make this life upon a limiting earth
A climb towards summits vanishing in the void,
A search for the glory of the impossible.
It dreamed of that which never has been known

Sri Aurobindo

from: 'Savitri', Book VII: "The Book of Yoga"

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Sir John Wilson

January 20, 1919 - November 23, 1999

Remembering Sir John Wilson

... with a sense of loss and gratitude

At Aravind, we were fortunate to have been touched by his remarkable personality!

Sir John has been a guiding spirit in giving a global perspective to Aravind's work which has been so fundamental to its growth.

At the meeting held at the hospital in tribute to his memory Aravind renewed it's commitment to realise his vision of a world without needless blindness.

Preparing for the Future

1999 has been yet another successful year of rapid growth and development. It was also the year wherein significant efforts and activities were initiated to strengthen the organisation to take on even greater challenges in the next millennium.

Major initiatives are underway to reorganise ourselves to perform more effectively in a decentralised manner. Several task forces have been formed to give a greater thrust to all the core activities of the hospital such as the clinical services, academic programmes and research projects.

Systems are being developed and put in place to give the branch hospitals greater autonomy and they are being encouraged to assume greater responsibility in running the hospitals. The infrastructure for basic research has been particularly strengthened with the appointment of Dr. VR Muthukkaruppan, a world renowned immunologist.

The work of Aravind received national and international recognition through several awards received this year by Dr. G. Venkataswamy and other Aravind staff.

This year also marks the twenty-fifth anniversary of vitreous surgery pioneered in India by Dr. P. Namperumalsamy in collaboration with Dr. Gholam Peyman from the United States. The first vitreous surgery followed by several workshops were conducted in Madurai and since then Aravind has been a major provider of vitreo-retinal services and Fellowship training in India.

During the year, the opening of the hostel in Madurai for the postgraduate students was a significant infrastructure development. This provides 167 single room accommodation for residents, fellows and other short-term trainees. Though there has been no additional buildings in the clinical area, the total number of patients served increased considerably. During the year 1,283,072 out-patient visits were handled and 183,168 surgeries were performed. This marks a 10% growth in the number of out-patient visits and 16% growth in the surgeries over the already large volume achieved in the previous year. The community response to the 1,488 diagnostic eye camps was overwhelming during the year and a significant portion of this growth comes out of reaching out and serving a larger number of poor patients.

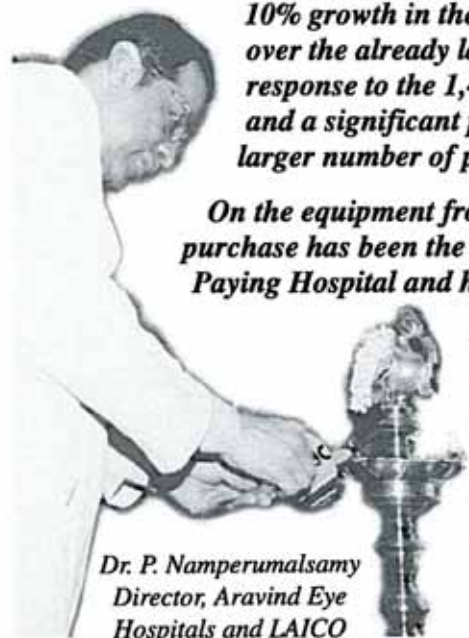
On the equipment front, in addition to the normal replacements, the major new purchase has been the Excimer Laser with LASIK. It is housed in the Madurai Paying Hospital and has been in use since July 1999.

The Rotary-Aravind International Eye Bank, now in its second year recorded a 37% growth with 781 eyes received as donation.

Aravind and LAICO ventured overseas to partner with two eye care programmes in Cambodia and Malawi to strengthen their capacity. In Cambodia, with Seva Sight Program's collaboration, technical support was given to carry out a blindness survey, participate in a national workshop on eye



Dr. G. Venkataswamy
Founder Chairman, Aravind
Eye Hospitals and LAICO



Dr. P. Namperumalsamy
Director, Aravind Eye
Hospitals and LAICO

care, and provide a month long surgical demonstration and training for doing large volume high quality cataract and other surgeries. Two of the Cambodian ophthalmologists were also trained at Aravind in IOL microsurgery.

A similar exercise was also carried out in Lilongwe, Malawi for the Lions SightFirst Eye Hospital in collaboration with International Eye Foundation. Both these projects helped in strengthening the local projects and at the same time gave us an opportunity to develop our capacity for international work.

Aurolab which pioneered in the production of high quality ophthalmic consumables at low cost, formally got an approval of international quality with the "CE Mark" Certification for its intraocular lenses and sutures. This certification officially places its quality at par with similar products sold in Europe.

Aravind Centre for Women, Children and Community Health continues its work to educate the community and mothers in bringing up healthier children and plays an active role in Vitamin A research. Its ongoing project to determine the impact of Vitamin A in newborns was reviewed by a panel of experts. The reviewers placed the quality of the research in the community as one of the finest in terms of the integrity with which it is being carried out, involvement of the community and maintaining high ethical standards.

LAICO continues to offer several training programmes and the new addition this year was in patient counselling. The capacity building work with other hospitals continues to grow and the total number of hospitals in this process now stands at 84. The impact of this capacity building process in doubling the output and its work in Malawi paved the way for another grant from the Lions SightFirst Programme to extend this process to another 36 Lions Eye Hospitals. This time the participating hospitals will come not only from India, but also from other countries in Asia and Africa. SightFirst has also sanctioned another grant to develop and implement a community focused model for diagnosis and management of Diabetic Retinopathy.

Aravind Eye Hospitals, Aravind Centre for Women, Children and Community Health, Aurolab and LAICO are all extremely thankful to the various national and international bodies who have given us an opportunity and the support for carrying out this work. We are particularly thankful to CBM International, Lions SightFirst Programme, International Eye Foundation, Sight Savers, Seva Service Society, Seva Foundation, Combat Blindness Foundation, World Health Organization, the Government of India and the hundreds of voluntary organisations which worked with us in the organisation of the camps.



Dr. Gholam Peyman at one of the first vitreous surgery workshops in India at Aravind-Madurai

Highlights -1999

Vision 2020 Launched

Vision 2020, an ambitious global programme to eliminate avoidable blindness by 2020 AD, was launched worldwide on February 18, 1999. WHO and IAPB requested Dr. G. Venkataswamy, Chairman, Aravind Eye Hospitals, to be a spokesperson for India. Most of that day he was answering queries from the media from all over India. At the end of the day, a meeting was organised at Aravind Eye Hospital for the local press. The launch sought



Dr. G. Venkataswamy and Dr. G. Natchiar at the inauguration of the LASIK Centre

to generate awareness in the international forum regarding various activities envisaged under Vision 2020.



Dr. G. Venkataswamy explains Aravind's strategy towards Vision 2020

LASIK Laser at Aravind-Madurai

On July 1, 1999 the new refractive surgery centre was inaugurated by Dr. G. Venkataswamy in the first floor near the operation theatre complex. In this centre, LASIK is performed using a Bausch and Lomb Technolas 217C Laser and a Hansatome. Dr. M. Srinivasan and Dr. Venkatesh Prajna are trained in the LASIK laser surgery techniques. This centre has treated over 330 eyes with refractive errors during this six month period.

Vision Rehabilitation Centre

A separate Vision Rehabilitation centre was inaugurated on September 16, 1999 to strengthen the services to patients with low vision.

It caters to diverse age group from infants to older adults. The comprehensive vision rehabilitation service is designed to restore productivity and learning in school, workplace and community and to enhance the quality of life. This service includes examination, assessment, prescription of optical devices to maximize existing vision, modifying techniques to cope with the requirements at school, workplace and home, environmental adaptations, career guidance, counselling and referral service. Parents and family members are encouraged to participate in this process.



Mrs. Lavanya helping a child use low vision aids

Intensive Training Programme on Patient Counselling

The Patient Counselling activity is a major contributor to patient satisfaction and compliance to treatment. The realisation of a need for similar programmes in other hospitals led Lions Aravind Institute of Community Ophthalmology to develop a two-week intensive training programme on patient counselling. The first course was held between April 19 and May 1, 1999. Participants were given inputs on patient

counselling, measuring patient satisfaction, strategies for implementing patient counselling, using patients as motivators, blue print and location of counselling cell in a hospital.

Inauguration of the Hostel for Postgraduate Students

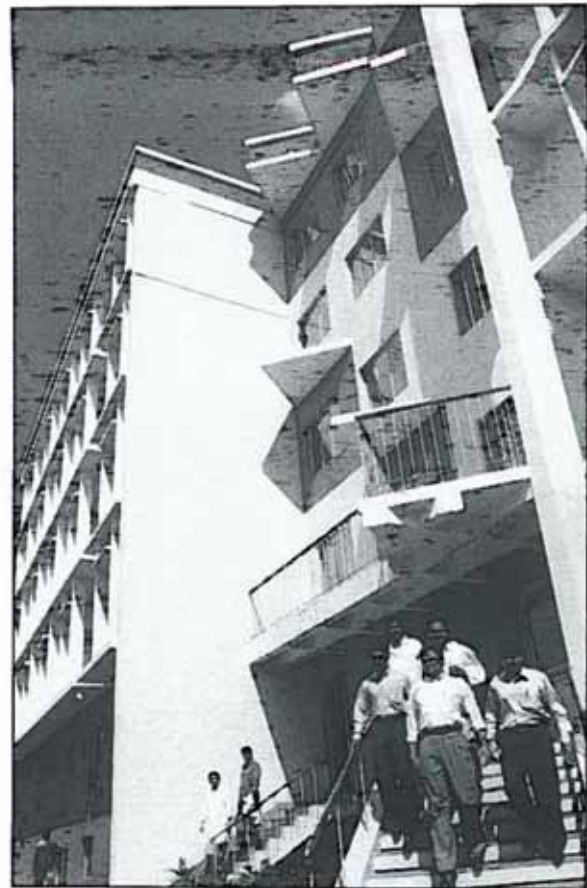
The hostel in Madurai for postgraduate students was inaugurated on October 3, 1999. This well-planned, facility provides 167 single-room accommodation for Residents, Fellows and other short-term trainees. It also houses a modern kitchen and a large dining area.

Overwhelming Response to Aravind CME Programme

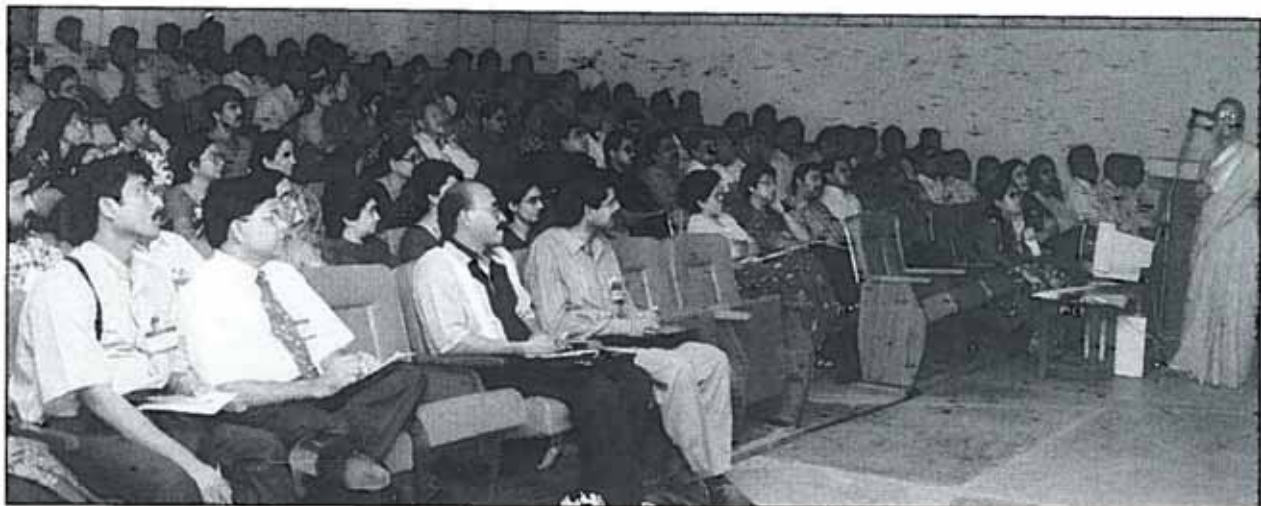
For quite some years now Aravind CME Programmes have been attracting ophthalmologists from all over India, and neighbouring countries. However, the Fifth CME Programme for surgeons trained under the Aravind Sight Savers Microsurgery Training Course, and the workshop on Small Incision Sutureless Cataract Surgery (SISCS), both held in the month of August saw an unprecedented response.

Being a hands-on training programme, the programme was held simultaneously in Aravind-Madurai, Aravind-Tirunelveli and Aravind-Coimbatore for the one hundred and twenty-seven delegates from India and abroad.

Over four hundred ophthalmologists participated in the first workshop on manual SISCS at Aravind-Madurai. The workshop was held simultaneously in the Hospital and LAICO auditoriums.



The postgraduate students hostel



Dr. G. Natchiar with the delegates of the SISCS workshop at the hospital auditorium

Aravind Facilities

EYE CARE SERVICES

Aravind Eye Hospitals

Paying and Free Sections

Aravind-Madurai

Aravind-Theni

Aravind-Tirunelveli

Aravind-Coimbatore

Speciality Clinics

Retina and Vitreous

Cataract and General Ophthalmology

Neuro-ophthalmology

Cornea

Paediatric Ophthalmology

Contact lens

Glaucoma

Uvea

Orbit and Oculoplasty

Support Facilities

Ocular Microbiology Laboratory

Ophthalmic Research Laboratory: Genetics and Immunology

Biochemistry

Radiology

Instruments Maintenance Laboratory

Patient Counselling Services

Audio-Visual Department

Library and Resource Centre

Computer Centre

Low Vision Rehabilitation Centre

Community Outreach

Free Eye Camps

School Eye Health Screening

Village Volunteers Programme

Community Based Rehabilitation Programme

Rotary Aravind-International Eye Bank

Donor Screening

Collection, Evaluation, Preservation and Distribution of Corneas

Training in Eye Banking

Training in Corneal Transplants



Aravind-Madurai



Aravind-Madurai Free Section



Aravind-Theni



Aravind-Tirunelveli



Aravind-Coimbatore

RESEARCH

Aravind Medical Research Foundation

Hospital and Community Based Randomised Clinical Trials

Population Based Epidemiologic Surveys

Health Systems Research

Basic Laboratory Research - Genetics, Microbiology, Biochemistry

EDUCATION AND TRAINING

Aravind Postgraduate Institute of Ophthalmology &

Lions Aravind Institute of Community Ophthalmology

Postgraduate Courses in Ophthalmology

Fellowship Programmes

Short-term Training Programmes

Continuing Medical Education programmes

Paramedical Courses in Ophthalmic Practices

Management Courses in Health Care

Task-oriented Training Courses

Custom Designed Courses

Capacity Building for Eye Hospitals

WOMEN AND CHILD CARE

Aravind Centre for Women, Children and Community Health

Primary Health Care programmes

Health Awareness programmes

Nutrition related Blindness Prevention Programmes

DEVELOPMENT OF APPROPRIATE COST EFFECTIVE TECHNOLOGY

Aurolab

Intraocular Lenses

Ophthalmic Suture Needles

Ophthalmic Pharmaceuticals

Spectacle Lenses

Low Vision Aids



Dr. Kalpana Narendran examining a child in the Paediatric Ophthalmology Service at Aravind-Coimbatore



Dr. Usha Kim examining a child in the Orbit and Oculoplasty Service at Aravind-Madurai



Dr. P. Sathyan during the Needs Assessment Visit to Jalaram Eye Hospital, Bodeli, Gujarat



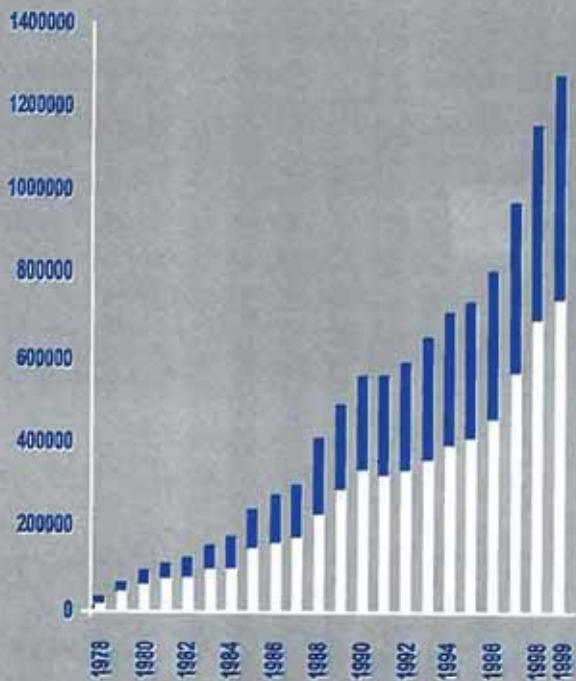
IOL Manufacturing at Aurolab

Statistics: January-December 1999

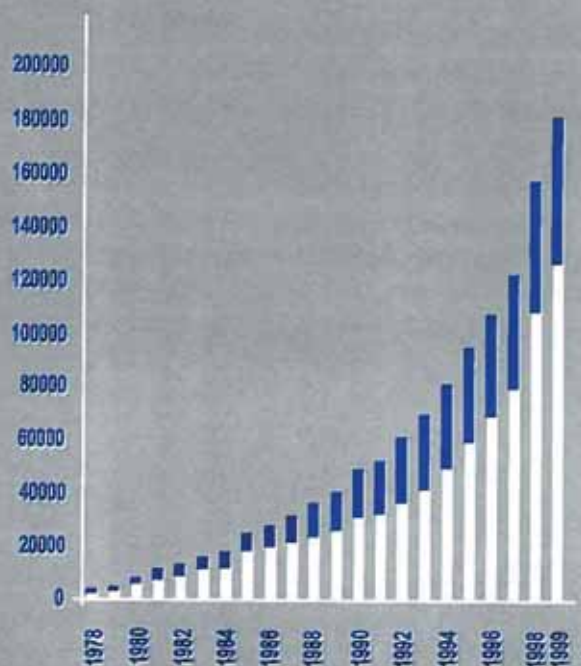
	Madurai	Coimbatore	Tirunelveli	Theni	Total
Out-patient visits					
Paying	244,855	159,582	96,322	29,494	530,253
Free	322,393	236,216	144,563	49,647	752,819
Hospital out-patient visits	399,394	258,313	155,239	56,546	869,492
Eye camp out-patient visits	167,854	137,485	85,646	22,595	413,580
Total out-patient visits	567,248	395,798	240,885	79,141	1,283,072
Screening camps	559	412	339	178	1,488
Surgery					
Paying	30,992	14,839	8,173	1,456	55,460
Free	63,493	37,833	20,545	5,837	127,708
SURGERIES					
Cataract without IOL implantation	2,833	1,731	624	251	5,439
Intraocular lens	74,561	42,488	23,273	6,294	146,616
Trabeculectomy & Combined procedures	698	176	203	23	1,100
Retinal detachment	606	344	75	-	1,025
Vitreous surgery	420	300	38	-	758
Membranectomy	69	16	2	-	87
Squint correction	478	159	29	-	666
Keratoplasty	290	82	-	-	372
Pterygium	378	113	128	46	665
Radial keratotomy	17	-	-	-	17
Ocular injuries	341	339	77	24	781
Laser & xenon photocoagulation	5,187	2,951	1,160	-	9,298
Nd. yag iridectomy	1,591	89	646	54	2,380
Nd. yag capsulectomy	1,484	803	542	169	2,998
Argon trabeculoplasty	-	-	6	-	6
Orbitotomy	101	3	-	-	104
Ptosis	104	40	16	-	160
Lid & socket reconstructions	626	302	116	23	1,067
Lacrimal surgeries	2691	1281	1170	281	5,423
Other orbit & oculoplasty surgeries	397	141	95	28	661
Lasik Laser	337	-	-	-	337
Others	1,276	1314	518	100	3,208
Total	94,485	52,672	28,718	7,293	183,168



Out-Patient 1978-99

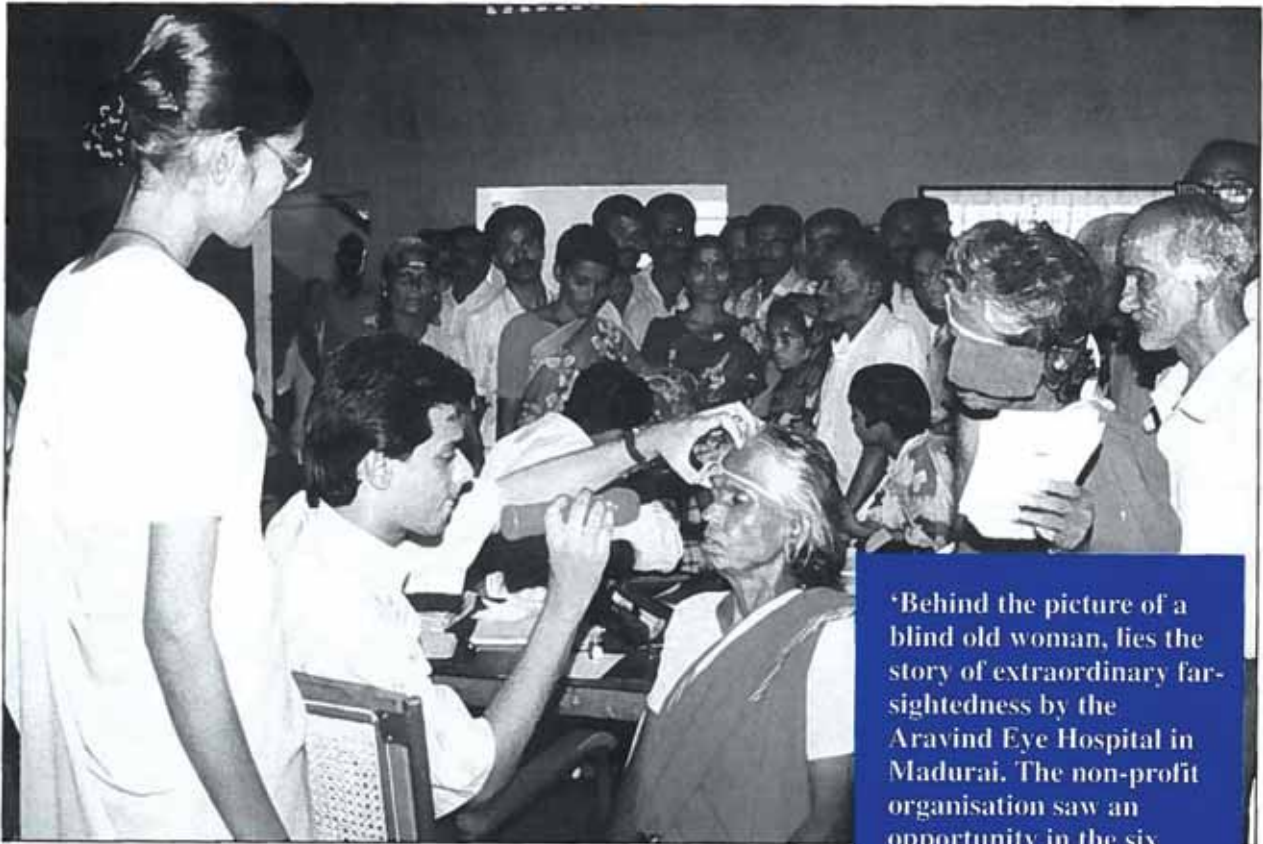


Surgery 1978-99



Free Paying

Community Outreach Programmes



'Behind the picture of a blind old woman, lies the story of extraordinary far-sightedness by the Aravind Eye Hospital in Madurai. The non-profit organisation saw an opportunity in the six million blind and 12.5 million economically blind in India. Performing over 150,000 operations in 1998 - only 40% of which were patients who paid and 60% were for free - the hospital is today, the largest facility for eye surgery.'

- C.K. Prahlad, Renowned Management Consultant

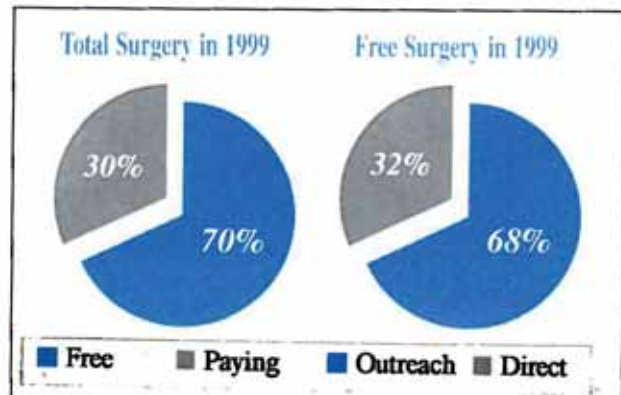
The community outreach programme at Aravind performs an anchor role for tackling curable blindness in the community. Aravind teams work closely with the local community leaders and service groups in setting up the eye camps. While in the community, the teams also educate the public on common eye problems and how to maintain proper eye care.

At the beginning of every year, the Aravind camp teams comprising of the camp managers, camp organisers, administrator and the senior

doctor in-charge of camps from all the satellite



Dr. V. Jaison, Dr. Anup Chirayath, Dr. V. Narendran, Mr. G. Srinivasan and Dr. R. Kalpana at the free eye camp at Ganeshpuri, where 1,375 free IOL surgeries were done.



Free Eye Camps: January-December 1999

Sponsoring Organisations	Camps	Out-patients	Cataract+IOL	Others surgeries	Total
Lions Clubs	323	133,997	25,594	732	26,326
Rotary Clubs	46	23,482	5,292	144	5,436
Vivekananda Kendra	42	9,592	1,857	74	1,931
Sri Sathya Sai Orgns. (BSSSSO)	179	37,059	8,594	443	9,037
Religious Organisations	50	17,510	3,464	77	3,541
Jaycees	10	2,625	514	13	527
Banks	12	2,988	470	27	497
Mills & Factories	19	11,809	3,250	83	3,333
DBCS	292	37,398	9,133	335	9,468
Educational Institutions	55	10,860	2,066	107	2,173
Hospitals	63	18,757	3,170	91	3,261
Trusts	48	17,326	4,281	152	4,433
Youth & Fans Association	76	14,118	2,277	101	2,378
Other Voluntary Organisations	90	22,227	4,202	135	4,337
Others	183	53,832	10,052	354	10,406
Total	1,488	413,580	84,216	2,868	87,084

hospitals meet at Aravind-Madurai. This meeting provides a platform to review the previous year's performance and to set the goal for the year ahead and to develop strategies to reach the goal.

In 1999, Aravind conducted 1,488 diagnostic eye camps and 413,580 people were screened and 87,084 underwent surgery. These free eye camps are conducted throughout various districts of Tamil Nadu and the adjoining state of Kerala.

Diabetic Retinopathy - Pilot Project

A proposal to combat blindness and visual impairment resulting from diabetes mellitus has been approved by Lions Clubs International Foundation.

This pilot project aims at reaching and providing services to diabetic retinopathy patients in the Madurai, Theni and Coimbatore districts. Creating community awareness, treating diabetic retinopathy patients, training ophthalmologists in this work are the major activities of the project.

Village Volunteers Programme (VVP)

The VVP has always had good support and co-operation from the people of the community it has served. This year, the programme was continued in Tiruchirapalli and Elurpatti areas with the assistance of Adhiparasakthi devotees, volunteers from BHEL, BSSSSO, and Railnagar, Tiruchirapalli.

In the last quarter of the year, new organisations – DHAN Foundation, Madurai; Institute for National Development and Peace Trust, Tirumangalam were contacted, their volunteers were trained and work commenced in their areas. In 1999, 309 cataract surgeries were performed under VVP and of this 96% were IOL surgeries. More cases are expected in the year 2000.



Ocular examination and lacrimal duct examination at the camp site

District Blindness Control Society organised free eye camps in Primary Health Centres (PHCs), utilising the government field staff to identify and motivate the cataract cases to come for the eye camps. In this programme, it was found that the PHCs in Tirumangalam Taluk yielded the maximum number of cases when compared to PHCs in other areas. This was mainly due to the awareness created in the community by VVP implemented in that area from 1989 onwards.

School Eye Health Programme

Started in 1992, this programme involves training teachers from interested schools to identify the visual impairment among students. The teachers are chosen for training in the ratio of one teacher per 100 children. Anatomy and physiology of eye, measuring visual acuity, Vitamin A deficiency, identification of bitot spots and squint are taught during the training given at the base hospital. The teachers then screen all the children before a predetermined date. After initial screening by the teacher, the school eye health ophthalmic assistant and finally the ophthalmologist examines the children and prescribes the appropriate treatment.

Besides schools in the immediate vicinity of the base hospitals, the scheme was also implemented in schools at Needamangalam and Kumbakonam in 1999.

In the Academic Year 1998-1999	
Schools	247
Teachers trained	564
Children screened	128,241
Children with eye defects	7,063
Children with refractive errors	4,919



Dr. Datta examining a patient

Comprehensive Eye Care Services at Aravind-Theni

Launched with the support of Sight Savers International, UK at Aravind-Theni, this unique project provides comprehensive eye care services to the curable and incurable blind. The project provides preventive, promotive, curative and rehabilitative services to the entire service area of Aravind-Theni consisting of a population of nearly one million.

Under this programme, following house-to-house identification, 30 screening camps were organised at the panchayat level in 1999. Five thousand two hundred and fifty one persons were treated for various eye problems and 853 persons underwent cataract surgery at Aravind-Theni. Of the 185 persons identified as incurably blind, 105 persons have already been rehabilitated within the community through orientation, mobility, activities of daily living skills, etc. Thirty-three persons were economically rehabilitated. One more unit of integrated education programme for visually impaired children in regular schools was started in Aundipatty Block. The school screening programme covered 22 schools and offered screening training to 165 school teachers.

Aravind-Theni conducted a one-week training programme in primary eye care for the field staff of Seva Nilayam, a non-governmental organisation providing services to patients with leprosy and tuberculosis. The strategy was to enhance eye care services to the community by partnering with Seva Nilayam. It was conducted in three batches of twenty-five field staff each. After the training, the field staff identified people with eye problems in their community. Aravind-Theni then provided necessary eye care services.



Dr. CAK. Shanmugham, Project Director and Mr. V. Rajendran, Camp Organiser speaking to the sponsors

Sponsors day

Aravind organises sponsors day every year at each of its satellite hospitals to appreciate the achievements made possible through the contribution of sponsors and to receive suggestions from them to further improve community outreach services. The sponsors day strengthens the relationship between the camp organiser and camp sponsor and this in turn reinforces the hospital's link to the community.

Education and Training

Aravind Postgraduate Institute of Ophthalmology

Recognising the need to develop human resources to take on the challenge of eradicating needless blindness, Aravind Postgraduate Institute plays a leading role in teaching ophthalmology and related services.

Postgraduate Training in Ophthalmology

Aravind's postgraduate courses provide a concrete basis for candidates to develop their clinical skills. The following courses are offered in affiliation with the various academic bodies as listed below:

Dr. MGR Medical University, Chennai

- Diploma in Ophthalmology (DO)
- MS in Ophthalmology (MS)

National Board of Examinations, New Delhi

- Diplomate of the National Board (Dip. NB)

Royal College of Ophthalmology, London, UK

- Membership of the Royal College of Ophthalmologists (MRCOph.)

Fellowship Programmes

Fellowship programmes in all the sub-specialities of ophthalmology - cornea, glaucoma, IOL micro-surgery, paediatric ophthalmology, retina and vitreous, orbit and oculoplasty, and uvea are offered.

Short-term Courses for Practising Ophthalmologists

Recognising the need for transition from conventional surgical procedures to the state-of-the-art techniques in managing various eye diseases, Aravind Eye Hospitals with support from Sight Savers offer the following short-term training courses to practising ophthalmologists:

IOL Microsurgery Training Programme

Started in 1993, the most popular short-term course among the ophthalmologists, this programme has trained 492 candidates from various parts of India and 88 from other countries. One hundred and nine ophthalmologists received training in the year 1999. This modular training equips the ophthalmologists to adopt the latest techniques of cataract extraction.

Training in Indirect Ophthalmoscopy

Started in 1994, 189 ophthalmologists have received this training.

Lasers in the Management of Diabetic Retinopathy

Started in 1998, 27 ophthalmologists have received this training.

Glaucoma Diagnosis and Therapy

Started in 1998 this course has trained 17 ophthalmologists.



Dr. S.R. Krishnadas with the Glaucoma Diagnosis and Therapy trainees

Visiting Residents

Ophthalmology residents from various university hospitals in the United States and some European countries come to Aravind for additional training as part of their residency programme.

In 1999, residents from the following hospitals in the US were here:

University of Illinois, Chicago; Brookdale Hospital and Medical Centre, New York; University of Wisconsin, Madison; Massachusetts Eye and Ear Infirmary, Boston; St. Vincents Hospital, New York; Wilmer Eye Institute, Johns Hopkins University, Baltimore; Greater Baltimore Medical Centre, Baltimore.

Training in Ophthalmic Nursing

Large volume and high quality eye care services require efficient paramedical staff. Recognising this vital need, Aravind offers training for ophthalmic nurses. High school graduates are recruited twice a year and trained in basic and ophthalmic nursing.



Senior nurse Ms. Shenbagavalli teaching students of nursing at Aravind-Tirunelveli

Training in Housekeeping

To face the challenge of maintaining high standards of hygiene and sanitation at Aravind in spite of the large volume of patients, Aravind has its own training programme for housekeeping staff. Like the nurses, they are trained on the job. Apart from housekeeping, the Aravind staff also run the coffee shop, the nurses' kitchen and cater the patient meals.

Speciality Training

The following staff of Aravind visited leading institutes and eye care centres in the United States to undergo specialised training in their respective disciplines. These institutes collaborate with Aravind in various training and research activities. In May, Dr. N.V. Prajna visited the Bascolm Palmer Eye Institute, Miami, USA where he observed



Dr. N.V. Prajna with Dr. Scheffer Tseng and other staff at Bascolm Palmer Eye Institute, Miami, USA



Dr. R. Kim and Dr. V. Narendran with Dr. Eugene De Juan Jr. at Wilmer Eye Institute

LASIK procedures done by Dr. William Culberston. He also spent time with Dr. Scheffer Tseng observing ocular surface transplantation procedures.

He also attended the annual ARVO meeting at Fort Lauderdale, Florida, USA. While in that area he observed Phaco surgeries performed by Dr. Alvan Balent and Dr. Linda Civerchia and various LASIK procedures done by Dr. Jaswant Singh Panno.

Dr. R. Kim and Dr. V. Narendran were at Wilmer Eye Institute, USA, from September 18 to December 23, to learn about the most recent surgical techniques including macular translocation. During the course of their training they worked with Dr. Eugene de Juan, Dr. Julia Haller, Dr. Peter Campochiaro and Dr. Mark Humayun. In addition to this Dr. R. Kim worked with Dr. Ingrid Zimmer Galler to develop interactive internet transmission of clinical conferences and grand rounds of the Wilmer Eye Institute to our hospital in India. Both of them paid a visit to the Centre for Diseases Control (CDC) in Atlanta. While there, they met with key members of the division of diabetes transaction programme, in connection with Aravind's work on diabetic retinopathy. At CDC Dr. Kim gave a presentation about Aravind and its mission. They also visited the Alcon's R&D division at Fort Worth, Texas and attended the American Academy of Ophthalmology meeting in Orlando.



Dr. V. Narendran and Dr. R. Kim with Dr. Linda, Dr. Alvan Balent and their surgical team at Fort Lauderdale



Dr. V. Narendran and Dr. R. Kim with Dr. Frank Vinicor at CDC, Atlanta

Continuing Medical Education at Aravind

Symposium on Ophthalmogenetics

Aravind-Madurai, January 3

The first ophthalmogenetics symposium provided a forum for sharing important recent developments in this field. International experts, Dr. Wallace L.M. Alward and Dr. Edwin M. Stone, University of Iowa, USA, spoke on various aspects of molecular genetics of eye diseases. Seventy delegates including ophthalmologists and geneticists attended the symposium.



Dr. P. Namperumalsamy, Dr. G. Venkataswamy, Dr. Wallace L. M. Alward and Dr. Edwin M. Stone with some of the participants of the workshop

Dr. Edwin M. Stone

- Genetic approaches to human diseases
- Specific features of recessive disease including congenital glaucoma & Leber's congenital amaurosis
- Ethical and economic implications of molecular diagnosis of human eye disease, genetic counselling

Dr. Wallace L. M. Alward

- Review of recent advances in the molecular biology of glaucoma
- Medical management of glaucoma

Dr. Radha Saraswathy

- Ophthalmogenetics at Aravind

Symposium on Glaucoma

Aravind-Madurai, January 11

Aravind postgraduate students attended the symposium organised exclusively for them. The guest faculty included Dr. Alan Robin, Johns Hopkins University, USA and Dr. Mike Patella, Zeiss-Humphreys, USA. Dr. Robin lectured on automated perimetry in glaucoma and application of Frequency Doubling Technology in screening glaucoma.

Dr. Mike Patella spoke on basics of automated perimetry and recent advances in perimetry in diagnosis of glaucoma.

Fourth and Fifth Ophthalmology Update

Aravind-Madurai, January 17-23 and July 4-10

The ophthalmology update courses aim to expose postgraduate students in ophthalmology from other institutions to various clinical presentations of ophthalmic disease and newer modalities of management.

The fourth and fifth ophthalmology updates were attended by postgraduate students from various states in India.

Participants were involved in theory sessions, case discussions, operation theatre observations, video presentations and slide shows. The panel examiners for the two ophthalmology updates included:

Dr. Chandra Sekara Chetty, Vice Chancellor, Rajiv Gandhi University, Bangalore; Dr. K. Ravi Shankar, Sankara Nethralaya, Chennai; Dr. Adiseshayya, Govt. Medical College, Mysore; Dr. Thirumalachar, Karnataka; Dr. P.J. Thomas, Kerala, and Dr. M. Srinivasan, Aravind Eye Hospital, Madurai



Participants of the fifth ophthalmology update

Symposium on Cornea and Refractive Surgery

Aravind-Madurai, March 6-7

The symposium provided an overview of basic concepts and recent advances in corneal refractive surgery. The scientific sessions consisted of didactic lectures by national and international faculty, video sessions and panel discussions. The Practitioners' Forum, an interactive session between the faculty and participants featured discussions on diagnosis



Dr. Ananda Kannan, Vice Chancellor, Dr. MGR Medical University and Dr. G. Venkataswamy



Dr. Steve McLeod, Dr. John Wilkins, Dr. Jack Witcher, Dr. David Gritz and Dr. Tom Lietman at the symposium



Dr. M. Srinivasan

and management of difficult cases. It also provided an update on current trends in management of corneal disorders.

The guest faculty included Dr. Jack Witcher, Dr. Steve McLeod, Dr. David Gritz, Dr. Anthrayose and Dr. Tom Lietman from Proctor Found-

ation, USA, Dr. John H. Wilkins, Devers Eye Institute, USA and Dr. Sitalakshmi, Shankara Nethralaya, Chennai. Sixty-eight participants attended the symposium. Eminent ophthalmologist Dr. K. Ananda Kannan, the newly elected Vice Chancellor of Dr. MGR Medical University was honoured at the valedictory function.

Dr. Steve McLeod

- *Overview of refractive surgery current trends*
- *Management of complications of refractive surgery*
- *Bacterial keratitis*

Dr. Sitalakshmi

- *Corneal topography*
- *LASIK - Indian experience*
- *Management of ocular surface disorders*

Dr. David Gritz

- *Laser PTK*
- *Management of corneal perforation*
- *Management of graft rejection*

Dr. Jack Witcher

- *Dry eye*
- *Atopic diseases*
- *Herpetic eye diseases*

Dr. Anthrayose

- *Pterygium surgery different techniques*

Dr. Tom Lietman

- *Chlamydial infection*

Dr. John H. Wilkins

- *Corneal disorders in systemic diseases*
- *Immunosuppressives*

Dr. M. Srinivasan

- *Fungal keratitis*
- *Acanthamoeba keratitis*
- *Chemical injury*
- *Penetrating corneal injury*

Dr. N.V. Prajna

- *Stromal dystrophy*

Dr. P. Vijayalakshmi

- *Complications of contact lens*

Dr. Revathi

- *Corneal complications of cataract surgery*

Symposium on Retinal Detachment and Basics of Vitreous Surgery

Aravind-Madurai, June 26-27

The symposium provided an overview of retinal detachment and basics of vitreous surgery. Eighty-three participants attended the symposium. The sessions provided an update of recent techniques in management of retinal disorders.



Dr. R. Kim at the symposium



Dr. V. Narendran



Dr. S.R. Mamatha



Dr. G. Venkataswamy, Dr. Taraprasad Das, Dr. Atul Kumar, Dr. Mangat Dogra, Dr. P. Namperumalsamy and Dr. Meena Chakrabarti at the symposium

The guest faculty included Dr. Atul Kumar, New Delhi; Dr. Mangat R. Dogra, Chandigarh; Dr. Taraprasad Das, Hyderabad; Dr. Muna Bhende, Chennai and Dr. Meena Chakrabarti, Trivandrum.

Dr. Atul Kumar

- *Slit lamp biomicroscopy*
- *Localisation of retinal holes*
- *Recurrent RD – Causes and management*
- *Macular hole surgery*
- *Management of penetrating injuries*

Dr. Mangat R. Dogra

- *Differential diagnosis of RD*
- *Principles and rationale of RD surgery*
- *Surgical principles and basic steps in pars plana surgery*
- *Recent advances in vitreous surgery*
- *Management of IOFB*

Dr. Taraprasad Das

- *Tractional retinal detachment-Aetiopathogenesis*
- *Explant+Implant techniques*
- *Primary vitrectomy for RD including GRT, coloboma*
- *Endophthalmitis-Medical management*

Dr. Muna Bhende

- *PVR-classification and management*
- *Endophthalmitis-Surgical management*

Dr. Meena Chakrabarti

- *Aetiopathogenesis of Rhegmatogenous RD*
- *Pseudophakic Retinal Detachment*
- *Instrumentation*
- *Pars plana surgery for anterior segment disorder*

Dr. P. Namperumalsamy

- *Instrumentation-Practice and advantages*
- *Fundus drawing and scleral depression*
- *SRF drainage*
- *Pneumatic retinopexy*

Dr. Kim

- *Exudative Retinal Detachment-Aetiopathogenesis*
- *Complications of RD surgery*
- *Indications for vitreous surgery*

Dr. V. Narendran

- *Clinical features, signs and causes of RD*
- *Chorioretinal treatment modalities*
- *Complications of vitreous surgery*

Dr. S. R. Mamatha

- *Peripheral retinal degenerations*
- *Prophylaxis of RD surgery*
- *Vitreous tamponade*

Dr. D. Shukla

- *Normal fundus and fundus periphery*
- *Anatomy of pars plana and vitreous*

Fifth CME Programme

Aravind Eye Hospitals, August 15-20

One hundred and twenty-seven delegates from India and abroad attended the annual CME session for surgeons trained under the Aravind Sight Savers



Participants of the fifth CME at Aravind-Madurai

Microsurgery Training Course. Due to the large number of participants, it was held simultaneously in Aravind-Madurai, Aravind-Tirunelveli and Aravind-Coimbatore.

The programme provided an opportunity for surgeons to update their knowledge and surgical skills, and renew old contacts.

Workshop on Small Incision Sutureless Cataract Surgery (SISCS)

Aravind-Madurai, August 21-22

The first workshop on manual SISCS at Aravind-Madurai had an overwhelming response with over 400 participants. The workshop was held simultaneously in the Hospital and LAICO auditoriums. Senior Aravind faculty members spoke on the basic concepts and nuances of SISCS. Interactive sessions were held by relaying surgery from the operation theatre to both the auditoriums, demonstrating the techniques utilised in different situations.

Dr. G. Natchiar

- *Introduction to SISCS*
- *Learning curve of SISCS*
- *Role of SISCS in high volume practice*

Dr. M. Srinivasan

- *Prevention of corneal complications in SISCS*

Dr. P. Vijayalakshmi

- *Role of SISCS in paediatric cataract*

Dr. R. D. Ravindran

- *Capsulotomies & hydroprocedures in SISCS*
- *Comparison of Manual SISCS with Instrumental Phaco*

Dr. P. Mohan

- *SISCS in difficult situations*



Dr. R. D. Ravindran

Dr. S. Kalpana

- *Intraoperative complications of SISCS*

Dr. R. Usha Kim

- *Conversion - When & How?*

Dr. Anup Chirayath

- *Flipping of nucleus in anterior chamber - various techniques and cautions*

Dr. Manas K. Ghosh

- *Wound construction*

Dr. Venkatesh

- *Basic steps of SISCS*

Dr. P. Sathyan

- *SISCS in filtering procedures*

Dr. V. Jaison

- *Delivery of nucleus through tunnels - various techniques (Hydroextraction/Sandwich/Phaco fracture)*

Dr. Vibha Gupta

- *SISCS in secondary implants*

Conferences Attended Elsewhere

Cornea Surgeons Meeting

LV Prasad Eye Institute, Hyderabad,
January 4-5

Dr. N.V. Prajna

- *Tectonic grafts in Mooren's ulcer*

Fifty-seventh All India Ophthalmology Society

Cochin, January 6-10

Dr. P. Namperumalsamy

Cochairperson-Free Paper Session

- *Retina Vitreous III*

Chairperson – Symposium on Retinal vascular disorders

- *Talk on vitrectomy in Eales disease*
- *Breakfast meeting on retinal lasers –Clinical application*
- *Talk on its application in vascular retinopathies*

Judge – Instruction Films & Public Education Films

- *Responsibility of medical teachers towards the community – Teachers Forum of AIOS*

Dr. G. Natchiar

Chairperson – Symposium on cataract backlog – Strategies of eradication

- *Lecture on model and strategies for eliminating cataract blindness*

Dr. P. Vijayalakshmi

Recent Advances and Update Programmes

- *Recent trends in strabismus management*
- *Talk on adjustable sutures in strabismus surgery*

Dr. Rathinam Sivakumar

Dilemmas in managing TB, Syphilis & Toxoplasma

Dr. R. Ramakrishnan

- *Panelist in the session on automated perimetry in glaucoma*
- *Talk on intractable glaucoma in the session on management strategies in glaucoma*

Video

- *A simple technique to repair traumatic iridodialysis*

Dr. S. R. Krishnadas

- *Panelist in the session on glaucoma filtering operations*
- *Talk on glaucoma associated with aphakia and pseudophakia in the session on management strategies in glaucoma*

Dr. V. Narendran

- *Dropped lens/nucleus during phaco*
- *Outcome of surgical intervention in the session on cataract & refractive surgery convention*

Dr. R. Usha Kim

- *Frontalis sling using Ethibond suture-Our experience in 100 cases*

Dr. P. Mohan

Video

- *Technique of capsulorhexis in mature cataract*

Dr. Anup Chirayath

- *Hydroprolapsing through an intact rhexis*

Video

- *SICS (non-phaco): Small pupil cataract extraction*

Dr. Prasad Walimbe

- *Scientific Poster – Is congenital dacryostenosis related with development of strabismus? A case control study*

Dr. Jeyahar Bharathi

- *Microbial keratitis in South India – A study of 950 cases*

30th All India Optometry Conference

Manesar, January 24-26

Prof. N. Sukumaran

- *The comparison of astigmatism using auto-refractometer with manual refraction*



Prof. N. Sukumaran

Glaucoma Update: Erode Ophthalmology Society

Erode, January 31

Dr. R. Ramakrishnan

- *Early diagnosis of glaucoma*
- *Management of coexistent cataract and glaucoma*

Dr. S. R. Krishnadas

- *Medical management of glaucoma*
- *Glaucoma following trauma*

Salem Ophthalmic Association

Salem, February 4

Dr. R.D. Ravindran

- *Small incision, non-phaco cataract surgery*

Symposium on Uveitis and Intraocular Inflammation

Postgraduate Institute of Medical Education and Research, Chandigarh, February 6-7

Dr. Rathinam Sivakumar

- *Terminology and classification of uveitis*
- *Leptospira uveitis: Diagnosis and management*
- *Syphilitic uveitis*

CBM International Meeting

Bangalore, February 11

Mr. R. D. Thulasiraj,
Mr. R. Muralikrishnan and
Mr. D. Nagarajan attended the meeting.

Science Forum

Madurai Kamaraj University
Teacher's Association, February 13

Dr. M. Srinivasan
- *Eye Donation*

Update on Refractive Surgery and Corneal Disease

Sankara Nethralaya, Chennai,
February 17-18

Dr. M. Srinivasan
- *Fungal keratitis*
- *Acanthamoeba keratitis*
- *Diagnosis of dry eye*
- *Paediatric keratoplasty*
- *Regrfts*
- *Unusual corneal infections*

Vitreo - Retinal Congress-1999

Ahmedabad, February 19-21

Dr. P. Namperumalsamy
- *Keynote address on diabetic retinopathy in India at the session on diabetic retinopathy and also one of the panelist in that session.*

Dr. V. Narendran
- *Free paper on subretinal Nocardial abscess - Diagnosis by transvitreal biopsy*

Dr. R. Kim
- *Endogenous endophthalmitis*

Ophthalmic Update-99

State Institute of Ophthalmology,
Allahabad, February 13-14

Dr. Kuldeep Srivastava
- *Congenital esotropia*
- *Management of amblyopia*

Lions Seminar on I.C.H - Sight First
Prevention of Blindness Programme

Phillipines, March 10

Mr. R. D.Thulasiraj
- *Basic courses and services of LAICO and Aravind Eye Hospitals*

Workshop on Instruments Maintenance

Raipur Divisional Ophthalmological
Society, Raipur, March 27-29

Prof. V. Srinivasan,
Ms. A.G. Subbulakshmi and
Ms Rm. Susila conducted the
workshop.

Visakhapatnam Ophthalmic Association

Visakha Eye Hospital,
Visakhapatnam, March 28

Dr. P. Namperumalsamy
- *Posterior segment complications of cataract surgery and their treatment*
- *Services rendered by Aravind Eye Hospital, Madurai*

TTK District Ophthalmology meeting

Aravind Eye Hospital, Tirunelveli,
March 28

Dr. N. V. Prajna
- *Dry Eye*

Orissa State Ophthalmological Conference

Cuttack, April 10-11

Dr. S. R. Krishnadas
Jawa Oration
- *Early diagnosis of glaucoma*
- *Role of antimetabolites*
- *Posterior Capsulotomy*

Dr. N. V. Prajna
Dr. Mahendra Chandra Mishra Memorial Oration
- *Chemical burns of cornea*
- *Manual Phaco*
- *Fungal keratitis*



Dr. P. Vijayalakshmi at the Vision 99
conference in New York

Govt. of India, Ministry of Defence, Research &
Development Organisation

Cochin, Kerala, May 11

Dr. P. Namperumalsamy
- *Technology day celebrations*
- *Technological aspects involved in Aravind activities*

Tiruchur Ophthalmologists Society Meeting

Tiruchur, May 16

Dr. M. Srinivasan
Guest speaker
- *Suppurative keratitis*
- *Non-suppurative keratitis*

Ahmedabad Ophthalmological Society meeting

Ahmedabad, June 4

Dr. P. Namperumalsamy
- *Posterior segment complications of cataract surgery*

B & J Medical College and Civil Hospital,

Ahmedabad, June 2-5

Dr. P. Namperumalsamy
Lectures to Postgraduate students
- *Vitreous hemorrhage*
- *Intraocular foreign body*

All India Conference on Community
Ophthalmology

Miraj, June 19

Dr. G. Natchiar
- *Vision 2020 - Blindness other than cataract*

Vision 99 - The International Conference on
Low Vision and Vision Rehabilitation

New York, USA, July 12-25

Dr. P. Vijayalakshmi
- *Madurai IOL studies during symposium on cataract*
- *Low vision in children, Indian perspective*

47th Tamil Nadu State Ophthalmic
Conference

Coimbatore, August 6-7

Dr. P. Namperumalsamy
- *Magnitude of blindness due to diabetic retinopathy*
- *Service delivery*

- Dr. G. Natchiar
Chairman - Non-phaco Small Incision Cataract Surgery
- Dr. M. Srinivasan
- How will you manage chronic meibomian gland dysfunction with marginal corneal infiltrations?
 - Video presentation on a true story of a pterygium
 - Moderator session on ocular surface disorders
- Dr. P. Vijayalakshmi
- Refractive errors & guidelines for prescription of glasses in children
 - Management of squint
 - How will you diagnose accommodative convergent squint?
 - Moderator session on paediatric ophthalmology
- Mr. R. D. Thulasiraj
- Economics of eye care
- Dr. R. Ramakrishnan
- Neuroprotection - The future
 - Should IOP evaluation be a part of the routine in mass eye screening programme?
- Dr. S. R. Krishnadas
- The newer drugs in glaucoma
 - How will you manage borderline chronic simple glaucoma? Medical treatment/ Trabeculectomy
 - How will you diagnose and treat chronic angle closure glaucoma
- Video
- Trabeculectomy combined with small incision non-phaco cataract surgery
- Dr. S. R. Rathinam
- Concepts in clinical workup of uveitis case
 - Dilemmas in management of uveitis
 - How will you diagnose HIV ocular infection clinically?
- Dr. R. D. Ravindran
Chairman of the Scientific Committee
- High volume manual phaco
- Dr. Anup Chirayath
- Wound construction, suturing & astigmatism concepts
- Dr. V. Narendran
Chairman of the Trade Exhibition
- Dr. Kalpana Narendran
- Extended wear CL and disposable CL
 - Childhood optic atrophy
 - Supracapsular Phacoemulsification
 - Management of paediatric cataract
- Dr. R. Revathi
- Ocular burns in an industrialised urban area
 - Paediatric ocular trauma: A retrospective survey
 - Principles of managing penetrating injuries
 - Recurrent corneal epithelial erosions caused and management
- Dr. P. Sathyan
- Phaco trab using Mitomycin C as a primary procedure
 - Evaluation of optic nerve head in glaucoma
- Videos
- Phaco - At different locations and different situations
 - Secondary IOL's - through temporal tunnel (Scleral/ Corneal)
- Dr. R. Kim
- Proliferative diabetic retinopathy
- Dr. Aravind Srinivasan
- Patient perception
- Dr. P. Mohan
- Capsulotomy & hydrosteps
 - Phacoemulsification in mature cataract using a simple technique of capsulorhexis (CCC)
- Videos
- Phacoemulsification in posterior polar cataract associated with coloboma iris
 - Management of subincision cortex in small incision cataract surgery
- Dr. V. A. Jaison
- Phaco-sandwich, Phaco fracture
 - Management of entropion and ectropion
- Video
- Different basic techniques of nucleus handling in phaco
- Dr. R. Venkatesh
- Manual vs Instrumental phaco
- Dr. Arun Samprathi
- Incidence of refractive errors in school children
- Dr. Meenakshi Sharma
- Outcome of strabismus surgery in congenital esotropia
- Dr. Meenakshi
- Visual outcome of traumatic cataract in children
- Dr. Ganesuni Rajesh
- Long-term follow-up of paediatric IOL's
- Dr. N. Sunil
- Nanophthalmos - A case of misdiagnosis
 - Pupilophlebitis
- Dr. S. R. Mamatha
- Role of Small Incision Cataract Surgery (SICS) in vitreo retinal surgery
- Video
- Pars plana lensectomy with scleral fixation IOL through scleral tunnel in traumatic subluxated cataract
- Dr. N. V. Prajna
- Acanthamoeba ulcer
 - Understanding the basic concept of ocular surface
- Dr. R. Usha Kim
- Pretarsal fixation of sclera in facial nerve palsy
 - Comparison of preoperative diagnosis with postoperative histopathological diagnosis of orbital tumours
 - LPS resection without cutting medial and lateral horns
 - Current concept in the management of ptosis
- Dr. Manceesh Kumar
- Alternative sites for dermis fat graft

- *Scleral graft for superior sulcus syndrome*

Dr. D. Shukla

- *Management of postoperative inflammation*

Dr. Sandeep Arora

- *Phacoemulsification with PCIOL implantation in Fuchs heterochromic cyclitis*

Dr. D. Sasikumar

- *Surgical outcome of posterior chamber lens implantation in phacomorphic glaucomas*

Dr. Prajakta B. Thakur

- *Asymmetric cup or asymmetric disc*

Dr. Kuldeep Srivastava

- *Congenital dacryocystitis*

Dr. Tulika Dabral

- *Management Small Incision Cataract Surgery (SICS) in high quality, high volume set up - A great alternative for instrumental phaco*

Dr. Suresh Puthalath

- *Incidence of secondary cataract in pseudoexfoliation syndrome*

Dr. Minu M. Mathen

- *Congenital corneal anaesthesia - A series of 4 case reports*
- *Midbrain cysticercosis causing third nerve palsy*

Dr. P. Vijayalakshmi

- *Orbital and intracranial arteriovenous malformation*
- *Parasellar choristoma causing ophthalmoplegia - A rare presentation*

Dr. B. Maheswar

- *AION - Aetiology, diagnosis and management*

Dr. A. Raghuram

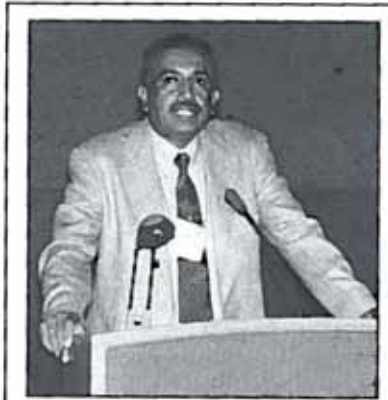
- *The other eye in CSR*

Dr. Prabhugouda

- *Learning curve of micro surgical trainees*

Dr. Thomas Mathew

- *Intraoperative and postoperative*



Mr. R.D. Thulasiraj, Executive Director, LAICO was unanimously elected as Regional Chairman of IAPB for the South East Asian Region of the WHO during the Sixth General Assembly of the International Agency for Prevention of Blindness, held in Beijing, China

complications of 1000 phaco-emulsification procedures

Dr. Nilesh V. Jain

- *Poster - Secondary metastases in eye from carcinoma larynx*

Sixth General Assembly of the International Agency for Prevention of Blindness (IAPB)

Beijing, China, September 5 - 10

Mr. G. Srinivasan

- *Instructor in the course "Cost recovery and resource mobilisation"*
- *Principles of cost recovery and its practical application*

Dr. P. Balakrishnan

- *Affordable technology and*



Mr. G. Srinivasan, Mr. R. D. Thulasiraj and Dr. P. Balakrishnan with Dr. Shrestha at the IAPB Meeting in Beijing, China

- *equipment maintenance*
- *Production of available ophthalmic supplies at Aravind Eye Hospital*
- *Ophthalmic equipment maintenance course at Aravind Eye Hospital*

Mr. R. D. Thulasiraj

- *Infrastructure, technology & resources*

In the course on IOL microsurgery training.

- *"Aravind model of IOL training" (in place of Dr. R. D. Ravindran who could not attend the meeting)*
- *"Requirements for IOL training"*

Low Vision Course

- *"Aravind model for professional training"*

Glaucoma Society of India

Mumbai, August 20-22

Dr. R. Ramakrishnan

- *Laser Iridotomy & Gonioplasty*
- *Panel discussion on prevalence, diagnosis and management of glaucoma*

World Retina Congress Meeting

Hyderabad, August 26-28

Dr. P. Namperumalsamy

- *Management of Intraocular Cysticercosis*

District Science Centre

Tirunelveli, September 1

Dr. R. Ramakrishnan

- *Eye Donation*

Nasik Ophthalmic Association

Nasik, September 4

Prof. V. Srinivasan

- *Ophthalmic Instruments Maintenance*

Trivandrum Ophthalmic Association

Trivandrum, September 25

Dr. R. Ramakrishnan

- *Talk on: Update in the management of glaucoma.*



Dr. G. Venkataswamy with friends at the AAO meeting in Orlando

SEARO/IAPB Meeting for Elimination of Avoidable Blindness and Regional Launching of Vision 2020, WHO/SEARO

New Delhi, September 28-30,

Mr. R. D. Thulasiraj

- *Status of blindness and progress, regional report for South East Asian region*

Ophthalmologist Meeting

October 3

Dr. M. Srinivasan

Guest speaker

- *Non healing corneal ulcer*
- *Scleritis*

National Seminar on Bio-Medical Instrumentation (Sponsored by the All India Council for Technical Education -AICTE)

Tanjore, October 9-11

Prof. V. Srinivasan,

Ms. A.G. Subbulakshmi and

Ms. Rm. Susila attended the seminar.

American Academy of Ophthalmology Meeting

Orlando, USA, October 25

Mr. R. D. Thulasiraj

- *LAICO - Resource for all levels of training of eye workers*
- *Aravind - 20 years and the challenges to be faced in the next decade*

Salem Ophthalmic Association

Salem, October 31

Dr. R. Ramakrishnan

- *Glaucoma Update: Newer advances in glaucoma diagnosis and management*

Hospital Corneal Retrieval Programme

Trivandrum, November 13

Dr. M. Srinivasan

Guest speaker

- *Hospital corneal retrieval*

District Science Centre - World diabetic day

Tirunelveli, November 14

Dr. R. Ramakrishnan

- *Diabetes and eye*

VI Ophthalmological Congress of SAARC Countries Conference

Kathmandu, November 19-21

Dr. R. Ramakrishnan

- *Performed live glaucoma surgery which was telecast on Nepal television*

Dr. Anup Chirayath

- *Phaco techniques: Manual vs Instrumental*

Videos

- *SICS: Hydroexpression with an irrigating vectis*
- *Live surgical demonstration of SICS*

Dr. P. Mohan

- *Postop endothelial cell loss following phacoemulsification and manual SICS*
- *Phacoemulsification in postuveitic cataract*

Video

- *Management of subincisional cortex in SICS*

Dr. S.R. Mamatha

- *Role of SICS in vitreoretinal surgery*

Video

- *Pars plana lensectomy with scleral fixating PCIOL through scleral tunnel in traumatic dislocated lens*

Operation Eye Sight Universal (OESU) Partners Meet

Cochin, November 26

Mr. R. D. Thulasiraj

- *Financial sustainability of the eye hospitals*



Dr. Anup Chirayath, Dr. Suraj Shakya, Dr. Ramakrishnan, Dr. P. Mohan, Dr. S. R. Mamatha, Dr. S. P. Singh and Dr. P. Namperumalsamy at the SAARC conference in Kathmandu

A Vision for Action for the New Millennium:
Prevention of Childhood Blindness as an
Integrated Component of Mother-Baby Care in
Developing Countries

Bangalore, November 30

Dr. P. Vijayalakshmi

- *Etiology and genetics of congenital cataract*

Poona Ophthalmologist Society Meeting

Poona, December 11-12

Dr. M. Srinivasan

Guest speaker

- *Eye banking*
- *Non-infective keratitis*
- *LASIK-our experience*

Glaucoma workshop conducted by Srikanth
Institute of Ophthalmology

Kakinada, Andhra Pradesh,
December 18-19

Dr. R. Ramakrishnan

- *Early diagnosis of glaucoma*
- *Interpretation of automated perimetry*
- *Normal tension glaucoma*
- *Live surgical demonstration*

Publications

BOOKS

Ocular Microbiology

Dr. Lalitha

Dr. Chitra Rajalakshmi

Housekeeping Manual (Tamil)

Dr. G. Natchiar

Ms. Kothai

VIDEOS

Small Incision Cataract Surgery (Non-Phaco/
Manual Phaco Extraction)

Current Techniques in Glaucoma

JOURNALS

Retina, Vol: 19 (1) 1999

Meena Chakrabarti; Suresh, P N
and Namperumalsamy, P

- *Bilateral macular infarction due to diaminodiphenyl sulfone (4,4' DDS) toxicity" p.83*

Indian Journal of Ophthalmology, Vol: 47 (1)
March 1999

Prajna, N Venkatesh et al.

- *Use of traditional eye medicines by corneal ulcer patients presenting to a hospital in South India, p.15-18*

Shamanna B R; Saravanan, S
Thulasiraj, R D; Venkataswamy,
G et al.

- *Refresher training and continuing education for para-medical ophthalmic assistants, p.49-52*

Journal of Cataract & Refractive Surgery, Vol:
25 (3) 1999

Arup Chakrabarti; Krishnadas
Gandhi, R and Meena Chakrabarti

- *"Ab externo 4-point scleral*

fixation of posterior chamber intraocular lenses" Mar. p.420-426

Journal of Tamil Nadu Ophthalmic
Association Vol: 40 (1), March 1999

Minu, M Mathen

- *Specular microscopy and analysis of corneal endothelium, p.1-12*

Ramakrishnan, R; Madhavi, G

- *Bronchogenic carcinoma presenting as granulomatous uveitis and secondary glaucoma, p.13-14*

Prajna, N Venkatesh; Gopal, R
and Srinivasan, M

- *Molluscum contagiosum keratitis in a patient with acquired immuno deficiency syndrome (AIDS), p.29-34*

Suma Krishnan

- *Aniridia - An unusual genetic presentation, p.35-36*

Prasanth; Manju, R Pillai and
Krishnadas, R

- *Orbital vascular malformation and ipsilateral glaucoma, p.41-44 Mar.*

Saraswati, A; John Mathews and
Krishnadas, R

- *Weill-Marchesani syndrome - A case report, p.45-48*

Annapoonkodi, P; Krishnadas, R

- *Isolated choroidal hemangioma with secondary glaucoma - A case report, p.49-52*

Vijaya Deepika, P et al.

- *Post surgical epithelial implantation cyst - A case report, p.53-54*

British Journal of Ophthalmology, Vol: 83 (5),
May 1999

Eckstein, Michael,
Vijayalakshmi, P

- *Randomised clinical trial of lensectomy versus lens aspiration and primary capsulotomy for children with bilateral cataract in South India, p.524-529*

Rathinam, S R et al.

- *Vogt-Koyanagi-Harada syndrome after cutaneous injury, p.635-638*

Journal of Tamil Nadu Ophthalmology Association Vol. 40 (2) June 1999

Kuldeep; Vijayalakshmi, P

- *Duane's retraction syndrome, p.1-14*

Subburam, P

- *Headache, p.15-26*

Sirisha, B et al.

- *Dysthyroid optic neuropathy - A case report, p.45-48*

Gowri Priya, C et al.

- *Anterior chamber granuloma in adult male - A case report, p.49-54*

American Journal of Ophthalmology, Vol: 128 (2) August 1999

Zegans, Michael, E; Srinivasan, M et al.

- *Mooren ulcer in South India: Serology and clinical risk factors, p.205-210*

Indian Journal of Ophthalmology, Vol: 47 (3) September 1999

Satish, S et al.

- *Congenital retinal arterial loops and spontaneous vitreous haemorrhage: A case report, p.197-198*

Ophthalmic surgery and lasers, Vol: 30 (8) Sep.-Oct. 1999

Sathish, Srinivasan; Arup Chakrabarti and Prajna, N Venkatesh

- *Traumatic subconjunctival dislocation of the crystalline lens and its surgical management, p.684-686*

Journal of Tamil Nadu Ophthalmology Association, Vol: 40 (3) Sep. 1999

Mahendran, V;

Namperumalsamy, P et al.

- *Association of HLA with eales (periphlebitis retinae) and*

iridocyclitis in South India, p.1-16

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Arch. of Ophthalmology, Vol: 117 (10) 1999 OCT.

Fletcher; Astrid, E; Thulasiraj, R D Shanmugham, CAK et al.

- *Low uptake of eye services in rural India: A challenge for programs of blindness prevention, p.1393-1399*

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Lions Aravind Institute of Community Ophthalmology



Lions Aravind Institute of Community Ophthalmology (LAICO) is a unique organisation, currently the only one of its kind dedicated to enhancing the effectiveness of eye care services.

The primary objective of the institute is to, train health-related and managerial personnel in the development and implementation of efficient and sustainable eye care programmes using the broad environment of Aravind Eye Hospitals, Aravind Centre for Women, Children and Community Health and Aravind Medical Research Foundation. The multi-disciplinary team at LAICO continues to be engaged in an increasingly diverse and challenging set of tasks to fulfill the various objectives.

Consultancy for Capacity Building of Eye Hospitals

LAICO partners with International NGO's like Christoffel Blinden Mission (CBM), Sight Savers International (SSI), the Lions SightFirst Programme, International Eye Foundation and Seva Sight Program to develop eye hospitals supported by them into centres of excellence with sustainable eye care programmes. The consultancy offered is tailored to suit the special needs and environment of the hospital. Currently, LAICO is working with a total of 84 hospitals spread across India, and also in Bangladesh, Nepal, Africa and Cambodia.

The consultancy is offered through the following phases:

- Needs assessment visits are carried out by the LAICO teams to the hospitals to gain better understanding of the working systems, management structure and establish a framework for capacity building specific to each hospital.
- Vision Building and Strategy Planning/Manpower and Management Development Workshops provide an environment for the key personnel from each hospital's team to evolve a 'vision' for their hospital. It also helps them to develop various strategies by which this vision can be translated into reality. These strategies are then broken down to detailed action plans relating to social marketing, service delivery, quality assurance and financial viability.
- Onsite consultancy during follow-up visits: Allowing a gap of six months for the hospitals to implement their strategies, the LAICO-Aravind team make follow-up visits to provide further support to the hospitals in implementing their action plan.
- Monitoring through monthly reports and further follow-up visits: All the hospitals send a simple monthly performance report to LAICO on a few parameters like number of outpatients, IOL surgeries performed, income, expenditure etc. to gauge the effect of the capacity building process and to plan for further support.
- As per the individual requirements of the partner hospitals, LAICO also conducts skills development and standardisation workshops. The skills development workshop aims at imparting skills in problem solving, managing change, communication and influencing the application of them in the day to day operation of the hospitals. The standardisation workshop helps to develop best practices relating to clinical and administrative procedures to be adopted by the partner hospitals. This is done in order to enhance the quality and effectiveness of the eye care services provided by the hospitals.
- Besides providing consultancy for development of existing eye hospitals, consulting support is given for establishing new eye hospitals in key areas like design, equipment and staffing, reflecting the needs of the community and the organisation philosophy. This is done by a site visit followed by a workshop at LAICO.

LAICO and Aravind are currently working with the following hospitals to strengthen their capacity to offer effective and sustainable eye care:

Lions Eye Hospitals

- Dr. Ranga Reddy Lions Eye Hospital, Secunderabad, Andhra Pradesh
- Lions Eye Hospital, Balanagar, Andhra Pradesh
- Lions Eye Hospital, Hyderabad, Andhra Pradesh
- Silchar Central Lions Eye Hospital, Silchar, Assam
- Jorhat Lions Eye Hospital, Assam
- Lions RK Memorial Eye Hospital, Dhanbad, Bihar
- Gujarat Blind Relief and Health Assoc. Eye Hospital, Chikhodara, Gujarat
- Lions Eye Hospital, Koppal, Karnataka
- Lions Eye Hospital, Chintamani, Karnataka
- Lions Eye Hospital, Jaora, Madhya Pradesh
- Udayachal Charitable Eye Hospital, Rajnandgaon, Madhya Pradesh
- Lions Eye Hospital, Sagar, Madhya Pradesh
- Lions Eye Hospital, Rewa, Madhya Pradesh
- Labh Munii Lions Eye Hospital, Mandsaur, Madhya Pradesh
- Lata Mangeshkar Lions Eye Hospital, Nagpur, Maharashtra
- Lions Tarachand Baba Hospital, Mumbai, Maharashtra
- Lions Eye Hospital, Aurangabad, Chikalthana, Maharashtra
- Lions Club of Dahisar Diagnostic Centre, Mumbai, Maharashtra
- Lions Sital Prasad Jain Eye Hospital and Diagnostic Centre, Dahisar, Maharashtra
- Rourkela Vedvyas Lions Eye Hospital, Rourkela, Orissa
- Lions Eye Hospital, Berhampore, Orissa
- Lions Eye Hospital, Jalandhar, Punjab
- Lions Eye Care Centre, Jaitu, Punjab
- Rani Lions Eye Hospital, Rani, Rajasthan
- Bhilwara Lions Eye Hospital, Bhilwara, Rajasthan
- Lions Club of Madras (Host) Shri Maganial Hansraj Eye Hospital, Chennai, Tamil Nadu
- Leprosy Relief Rural Centre, Chettipatty, Salem, Tamil Nadu
- KG Eye Hospital, Coimbatore, Tamil Nadu
- Lions Eye Hospital, Balrampur, Uttar Pradesh
- Lions Eye Hospital, Gazibad, Uttar Pradesh
- Maharani Laxmibai Memorial Eye Hospital, Jhansi, Uttar Pradesh
- Sawhney Lions Eye Hospital, Rampur, Uttar Pradesh
- Lions Eye Hospital, Alipurduar, West Bengal
- Siliguri Greater Lions Eye Hospital, Siliguri, West Bengal
- Dhaka Progressive Lions Eye Hospital, Narsingdi, Bangladesh
- Lions SightFirst Eye Hospital, Lilongwe, Malawi

Sight Savers Supported Hospitals

- Rotary Netra, Vizag, Andhra Pradesh
- Netra Jyoti Seva Mandiram, Rajgir, Bihar
- Muzaffarpur Eye Hospital, Muzaffarpur, Bihar
- Jamshedpur Eye Hospital, Bihar
- CMRM Rotary Eye Hospital, Giridih, Bihar
- Shree Jalaram Seva Mandal Trust, Bodeli, Gujarat
- Nandlal Mulji Bhuta Medical Foundation, Sihor, Gujarat
- Kutch Vikas Trust, Bhuj, Gujarat
- Arpana Research & Charities Trust, Karnal, Haryana
- Vishwa SEVA Samiti, Sirsi, Karnataka
- Chhattisgarh Eye Hospital, Raipur, Madhya Pradesh
- Bhopal Eye Hospital Trust, Bhopal, Madhya Pradesh
- Venu Eye Hospital, New Delhi
- JPM Rotary Eye Hospital, Cuttack, Orissa
- Gandhi Mission Trust, Daspur, West Bengal
- Vivekananda Mission Ashram, Haldia, West Bengal
- Budge Budge Welfare Trust, Calcutta, West Bengal
- Sri Sri Bijoykrishna Ashram Relief Society, Ramchandrapur, West Bengal
- Rotary Service Centre, Purulia, West Bengal

CBM SARO (S) Supported Hospitals

- CSI Redfern Memorial Hospitals, Hassan, Karnataka
- Malankara Orthodox Syrian Church Medical Mission Eye Hospital, Kariambady, Kerala
- H.V. Desai Eye Hospital of Poona Blind Men's Association, Pune, Maharashtra
- Wanless Hospital, Miraj, Maharashtra
- St. Luke's Eye Care Hospital, Nazareth, Tamil Nadu
- Good Samaritan Eye Hospital, Matrapalli, Tamil Nadu
- Kotagiri Medical Fellowship Hospital, Kotagiri, Tamil Nadu
- CSI Kalyani General Hospital, Chennai, Tamil Nadu
- Schieffelin Leprosy Research and Training Centre, Karigiri, Tamil Nadu
- CSI Hospital, Neyyoor, Kanyakumari, Tamil Nadu
- Scudder Memorial Hospital, Ranipet, Tamil Nadu
- Lutheran Eye Hospital, Dharapuram, Tamil Nadu
- Vizhiyagam Eye Hospital, Sivagangai, Tamil Nadu

Seva Sponsored Eye Hospitals

- Sitapur Eye Hospital, Bahraich, Uttar Pradesh, India
- King Mahendra Memorial Eye Hospital, Bharatpur, Nepal
- Nepal Eye Hospital, Kathmandu, Nepal
- Provincial Hospital, Siem Reap, Cambodia

Other Hospitals

- Jnana Prabodhini Medical Trust's Smt.Kamala Mehta Hospital, Satara, Maharashtra

	No. of Workshops	Hospitals	Participants
Vision Building and Strategy Planning	4	28	120
Standardisation	2	8	22
Skills Development	1	4	10
Management and Planning Support for Establishing New Eye Hospitals	1	7	25

Needs Assessment and Follow-up Visits were made to 68 Hospitals



Participants from Sight Savers and Seva Supported hospitals at the Vision Building Workshop



Participants of the Skills Development Workshop



Participants at the Workshop for Management and Planning Support for Establishing New Eye Hospitals

Other Workshops

Seminar on Eye Camps and Lions Quest: Lions Clubs International - District 324 B3

September 26, 1999

The "Seminar on Eye Camps and Lions Quest" for Lions Members of Lions Club International District 324 B3 was organised at LAICO. Ln. S. Sankaranarayanan, District Governor was the Chairperson of the seminar. Dr. G. Venkataswamy, Chairman of Aravind Institutions gave the keynote address in the inaugural function. The scientific session of the seminar was lead by Dr. G. Natchiar, Dr. M. Srinivasan, Dr. S.R. Krishnadas and Mr. R.D. Thulasiraj in the areas of eye camps and outreach programmes, eye donation, common eye diseases and Vision 2020 respectively. Ln. Dr. P. Piramanayagam, District Chairman Eye Camps, Ln. Prabhakar V. Murari, District Chairman, Lions Quest and Mr. A. K. Sivakumar, LAICO Faculty facilitated the seminar. 178 Lions members of the Lions District 324 B3 participated in the seminar.

Lions Clubs International - Multiple District 324 SightFirst Chairmen Seminar

November 20 and 21

The "SightFirst Chairmen Seminar" for SightFirst Chairmen of Lions Club International Multiple District 324 B was organised LAICO. The overall aim of the seminar was to develop a good understanding of the eye care and community outreach programmes, to help them lead the SightFirst Programmes in their district.

This seminar was organised by Ln. J. D. Pannalal, Multiple District SF Chairman.



SightFirst District Chairmen Seminar

Dr. S. Chandrashekar Shetty, Mr. A. K. Sivakumar and Mr. S. Saravanan briefed about the SightFirst Programme and Role of SF District Chairmen, Capacity Building Programme for Lions Eye Hospitals and LAICO Activities. The Scientific Session of the seminar led by Dr. G. Natchiar and others comprised of Eye Camps and Outreach Programmes, School Eye Health Programme, Eye Donation, Common Eye Diseases and Vision 2020. The seminar was attended by 12 Lions Members, out of which 5 were SF District Chairmen, of the Lions Multiple District 324.

Visits and Work Abroad

Consultancy by LAICO and Aravind Eye Hospital

Malawi Eye Care Project

September 15-October 24

A six member multi-disciplinary team from LAICO/Aravind Eye Hospital consisting of Dr. Anup Chirayath, Mr. S. Saravanan, Mr. B.S. Ganesh Babu, Mr. R. Meenakshi Sundaram, Ms. Krishnaveni and Ms. Meena visited Malawi for a 5-week period. This marked the implementation phase of the ongoing Capacity Development consultancy provided to the Malawi



At the SightFirst Hospital in Lilongwe, Malawi



*Aravind-LAICO team Mr. Ganesh Babu
Mr. R. Meenakshi Sundaram and Mr. Saravanan with
Mrs & Dr. Moses Chirambo at Sight Savers Office,
Malawi during the needs assessment visit*

Eye Care Project. A total of 500 cataract operations were carried out. Of these Dr. Anup did 180 and guided the local team headed by Dr. Moses Chirambo to perform the rest. During this period 13 screening eye camps were conducted which accounted for 385 surgeries performed at the hospital. Standardisation of various systems in the OPD, theatre, ward and the camp was carried out. The surgical training programme was assessed. Monitoring and quality control management systems were set in place. Patient counselling was introduced in the ward and OPD. Patients were motivated to pay 500 MK (Malawian Kwacha) for IOL surgery and in the duration of 2 weeks 15 paying patients were admitted. Job descriptions were developed for the staff.

The team also visited the eye department of Queen Elizabeth Eye Hospital in Blantyre. The clinical team operated on 20 cataract patients along with Dr. Batumba. A meeting was held with the Medical Director regarding the activities undertaken in Lilongwe. Christine (Malawi Project coordinator, International Eye Foundation, USA) was briefed on the possibilities of a similar project in Blantyre in collaboration with Lions Club. The team also met with Mr. Ted Goreham, Lions Club President and briefed him on the involvement of Lions Clubs in eye care services in India.

Eye Care in Cambodia

June 18-July 20

Mr. D. Nagarajan represented Aravind and LAICO in the Cambodia National Workshop on eye care services. LAICO also provided technical support to carry out surveys to assess the blindness prevalence



Dr. R. Venkatesh and nurse Ms. Valarmathi at the surgical demonstration for the Cambodian staff

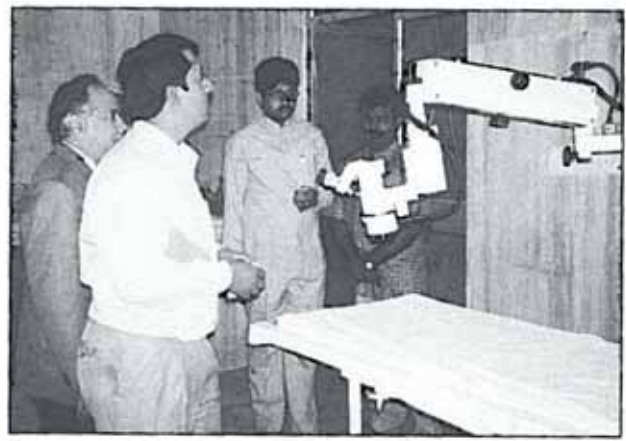
and barriers to access. The data management was done at LAICO.

As part of the capacity building process offered to Cambodia, an Aravind Team comprising of Dr. R. Venkatesh and two nurses Ms. Kokila and Ms. Valarmathi went to Siem Reap for a month to train the Basic Eye Doctors (BED) and Nurses (BEN) in high-volume, high-quality, low-cost cataract surgery. Training was also provided in preoperative refraction and fundus examination. During their stay there Dr. Venkatesh performed 275 surgeries.

Eye Care in Nepal

April 22-27

Keerti Pradhan, LAICO faculty visited King Mahendra Memorial Eye Hospital, Bharatpur, Chitwan, Nepal for further planning and implementation of the strategy and action plan developed at LAICO during the Vision Building Workshop. A meeting was also held with the local Nepal Netra Jyoti Sangh (NNJS) members who manage the hospital. Following this networking, visits were made to different eye hospitals in Nepal. They included Lumbini Rana-Ambika Eye Hospital, Bhairahawa, Nepal (model rural hospital performing high-volume high-quality cataract surgery); Tilganga Eye Centre, Kathmandu (a day care surgery eye hospital where patients stay for a few hours after surgery); Nepal Eye Hospital, Kathmandu (the oldest eye hospital of Nepal); B P Koirala Lions Center for Ophthalmic Studies (teaching hospital). The visit concluded with a meeting with Dr. R.P. Pokhrel, Chairman of Nepal Netra Jyoti Sangh (NNJS), a federation which has set up 26 rural eye hospitals across Nepal.



Dr. Mohan and Mr. Sivakumar in a hospital in Andhra Pradesh

Other Visits

Evaluation of IOL trained surgeons in Andhra Pradesh

October 11-15

Dr. P. Mohan, Consultant Aravind Eye Hospital, Madurai and Dr. B.K. Jena, Professor and Head of Department, VSS Medical College, Burla conducted an evaluation of the work of IOL trained surgeons at hospitals in A.P. In addition, the problems encountered were discussed and suggestions were given to improve the training. Surgeons of the following hospitals were evaluated:

- Regional Eye Hospital, Vizag
- Ankapalli Government Hospital
- Vizianagaram District Hospital
- Sarojini Devi Eye Hospital
- King Koti Hospital
- Regional Eye Hospital, Warrangal
- Rhamman District Hospital
- Government Hospital, Guntur
- Area Hospital, Narasavaopet

Survey of Cataract Surgical Records (CSR) in Orissa

October 5 - November 2

Dr. Arunava Kundu (Aravind-Madurai), and Mr. Keerti Bhusan Pradhan (Faculty-LAICO) attended the CSR survey meeting organised by the Govt. of India at R.P. Centre, AIIMS, New Delhi, on August 27, to finalise the protocol for the CSR survey. This survey was proposed in the seven World Bank supported states to determine the quality of CSR, as well as the quality of surgery and follow-up eye care rendered. The Aravind-LAICO CSR survey team consisting of Dr. Arunava Kundu, Mr. Keerti Bhusan Pradhan and Mr. Selvakumar (Optometrist) carried out the



Mr. Selvakumar, Mr. Keerti Bhusan Pradhan and Dr. Arunava Kundu in a tribal village in Orissa

survey in Orissa in October 1999. They covered three districts Keonjhar, Cuttack and Sambalpur examining 100 patients in each district.

Training Programmes

In addition to co-ordinating the postgraduate clinical courses in ophthalmology, LAICO offers paramedical and management courses affiliated to the Madurai Kamaraj University and Mother Teresa University.

Paramedical Courses

- Diploma in Ophthalmic Assistance
- Diploma in Housekeeping
- Postgraduate Diploma in Optometry
- Postgraduate Diploma in Ophthalmic Clinical Assistance

Management Courses

- Postgraduate Diploma in Hospital Management
 - Postgraduate Diploma in Health Management
- The second batch of PGDHM students consisting of 14 students graduated this year. Through campus interviews, placements were assured for the candidates.

The Masters in Hospital Management students of Madurai Kamaraj University were taught Hospital Administration I, Epidemiology, Research Methodology and Quality Assurance, Services Planning and Management and Hospital Administration II.

Short-term need-based training in hospital management was provided to various candidates from Bangladesh (2 candidates), Nepal (1 candidate) and from the Philippines (10 candidates).

Intensive Skill Development Courses

Patient Counselling: Started in April this year, this



The Philippines team at LAICO

two-week training course was offered to six participants from three hospitals in Haryana, Tamil Nadu and Malawi, Africa.

Course on Community Outreach: Two courses were conducted this year and nine candidates were trained.

Course on Instruments Maintenance: During this year four regular courses were conducted and twenty-two technicians were trained. Nine of the twenty-two were from countries outside India. Five from Nepal, and one each from Bangladesh, Malawi, Papua New Guinea and Zanzibar. Besides the regular courses two special courses were conducted for eight technicians and six paramedical ophthalmic assistants sponsored by the Directorate of Health Services, Government of Maharashtra under their



Ms. A. Nagalakshmi with the participants of the Patient Counselling Course



Visitors from TVS Eye Hospital and Ms. Suzanne Gilbert at the Instruments Maintenance Camp

World Bank assisted programme for the prevention and control of blindness.

Eight ophthalmologists were trained through three Instruments Maintenance Courses held exclusively for them.

Project Students at LAICO

LAICO guides and provides an opportunity for applying the classroom knowledge in practical situations to students of social work, computer training and management. Students from local colleges and from other parts of India seek such training. For the first time an overseas institution sought such training with Dr. S. Aravind, Mr. Marshall E. Reid and Mr. Douglas Blodgett, MBA students at the University of Michigan, USA choosing to do their project work at Aravind. They spent a month developing a conceptual model describing the different phases and essential conditions for establishing an eye hospital. LAICO faculty provided support and guidance.

Research Infrastructure

The Biostatistics department serves as the data centre for blindness prevalence surveys and for the ongoing large-scale community based clinical trials on Vitamin A supplementation to newborns study and antioxidants in cataract prevention study.

Statistical consultation is provided to researchers of Aravind Eye Hospital and the Aravind Centre for Children, Women and Community Health for internally/externally funded studies from study design, questionnaire preparation, data management to the final statistical analysis.

As part of the research committee, the staff members teach research methodology to postgraduate students and provide statistical support for their thesis. As part of LAICO faculty, the staff members teach biostatistics and epidemiology to Master degree and PG diploma students in hospital management of Madurai Kamaraj University.

External data management and analysis for research studies such as the Cambodia Blindness survey and Ahmedabad Quality of Life Study were undertaken by the department.

Support to Aravind

One of LAICO's key role has been to provide support services to the network of Aravind Institutions, Aravind Centre for Women, Children and Community Health, Aurolab, etc. This support is

offered through a variety of ways, one of them being systems development. As the organisation continues to expand, a key mechanism to ensure coordinated functioning is through systems, which allows more efficient use of resources. LAICO has helped in the development of systems whether it is in increasing productivity of surgery, or inventory system for housekeeping.

Another key area has been in Quality Management: Intensive training in quality systems is being provided to all staff of Aravind Eye Hospital, Madurai. A process for regular patient satisfaction assessment has been put in place in Aravind Eye Hospital, Madurai. Quality Audits in specific areas were also conducted. Quality Council was formed to review the progress of quality management. Four Quality Circles were started at Aurolab.

LAICO also provides students coordination support for the various short-term clinical courses offered. Ms. Chitra and Ms. Kanchana Mala play the crucial role of orienting and help settle down quickly the new batch of 10-15 doctors who arrive every month.

Conference Planning and Implementation: With an increasing number of conferences at the state, national and international level being conducted by the Aravind Institutions, LAICO is developing a computerised decision support system. This allows for automating and standardising the procedures and supporting effective decision making and providing a strong communication channel. It helps in effective planning & implementation of the workshops regardless of the number of participants, venues, individual preferences, and also allows for evaluation of the conference.

Developmental Workshops for Aravind and LAICO Staff

- Selection criteria and recruitment process was developed to help Aravind-Tirunelveli and Aravind-Madurai take on new responsibilities for selecting and training Paramedical staff. A workshop was held to brief staff on the process and train them in interviewing techniques.
- A review of the existing committee for development of the institution work was carried out and a process was developed to support decision making within the organisation. The senior leadership team, committee chairs and LAICO faculty were provided with training in facilitating successful meetings.



The Human Resources Development team Ms. P. Kothai, Mr. Hal Holt, Mr. Nagarajan, Ms. Vidhya Lakshmi, Ms. Maxine Harrington and Mr. A.K. Sivakumar

- Personnel department staff from all Aravind Institutions participated in a workshop which focused on the development of effective systems and processes relating to personnel administration. Implementation of these proposals will continue throughout 2000.

Human Resource (HR) Development

- Activities focused on the development of HR systems and processes within the organisation. In addition to this, advice and guidance were provided to the management staff on a day-to-day basis
- Job descriptions were prepared for clinical staff and work commenced on the middle management and other staff groups in order to help clarify responsibilities and reporting lines at Madurai. This exercise will continue and be extended to other Aravind Institutions in 2000.
- Dr. Neil Smith and Ms. Terry Mandel, Seva volunteers worked with the Aravind management team to improve communication and coordination between the Aravind systems and Aravind institutions. The senior leadership team received coaching in the development of action plans and discussions were initiated about delegation of responsibility and authority for key functions. More recent work within this area include the facilitation of a retreat on Management, Leadership and Organisation Development.
- Mentoring is a process of helping people to achieve their actual potential by helping them to handle issues by themselves. This facilitates the process of individual and thereby organisational development. Prof. Fred Munson conducted a series of Mentoring Workshops with different categories of staff from the Aravind Institutions to help them develop as mentors and to introduce the mentoring process in the organisation.

Visioning Process for LAICO and Aravind Eye Hospitals

Prof. Fred Munson and Ms. Terry Mandel through two independent workshops helped the staff at LAICO and Aravind Eye Hospitals go through a visioning process. The staff reflected on where they perceived LAICO and Aravind to be in 5 years time. This was matched with the identification of necessary infrastructural and human resource requirements to achieve this goal. The exercise helped in integrating various activities for achieving the larger goal for which the two institutions were set up.

Publications Division

Fully equipped with state-of-the-art desk top publishing facilities, a digital video editing unit and projection facilities, the publications division takes care of all multimedia requirements of LAICO and Aravind.

Teaching and Training:

- Slides and videos for presentations at scientific sessions
- State-of-the-art projection facilities for clinical presentations
- Slide manual sets for different diseases of ophthalmology
- Text books in ophthalmology and related services authored by Aravind and LAICO staff
- Video cassettes on new surgical techniques and management of complications
- Preparing course brochures, course material etc. for the various training courses offered at both Aravind and LAICO

Health Education:

- Health education material such as patient information brochures and posters on specific eye diseases
- Creating awareness among the public through videos, pamphlets and posters on eye care, eye donation etc.

Apart from these, it takes care of all printing requirements of Aravind and LAICO such as:

- Stationery
- Manuals for the various training programmes offered
- Annual reports, in-house newsletters, brochures on different facilities, etc.
- Designing and printing of questionnaires for the various research projects undertaken.

Aravind Centre for Women, Children and Community Health



Dr. Paulraj examining a child

Started in 1984, the prime objective of Aravind Children's Hospital was to combat nutrition related blindness in children. Over the years, it expanded its services to include health care for women and the community as a whole and is now appropriately named as Aravind Centre for Women, Children and Community Health (ACWCCH).

Apart from primary health care for children and women in the hospital, the centre works closely



Ms. Shanavaz, community organiser at the centre



Dr. Lakshmi Rahmathullah at a camp

1999 Statistics

Out-patients visits (New & Review)	14,974
Children below 5 years (New)	1,241
Camps	5
Cases seen in camps	689
Adult cases seen	825
Antenatal cases seen	51

Immunisation	
DPT	483
OPV	652
AMV & MMR	220
Polio Drops	2,397

Vitamin A deficiency cases	
XN & X1b	16
Keratomalacia	16
Corneal scar	2

with the community through camps, and by forming community service groups. It provides health care to the communities through health education, implementation of health concepts, conducting camps, meetings etc. Both men and women are trained to create awareness among villagers on various aspects of health care such as reproductive health, maternal health, child care, eye care, and environmental hygiene.

The centre works with association of Sarva Seva Farms (ASSEFA) in Karypatty Block in Virudhunagar District. It provides consultancy and orientation to health activities for the ASSEFA staff. The Kariyapatty ASSEFA staff were given training on the Programme Evaluation Review Technique (PERT) and other management techniques. Dr. Lakshmi Rahmatullah, Director, ACWCCH, organised a meeting to discuss the possibilities of implementing a five year plan for health.

Through the Pulse Polio Programme polio drops were distributed to 2,397 children.

Combating Vitamin A deficiency

Deficiency of Vitamin A has been the main cause of blindness in children. The centre is involved in the assessment and treatment of nutrition related blindness in children from Tamil Nadu. In combating blindness due to Vitamin A deficiency and other malnutrition disorders, a number of activities are undertaken to create awareness and to provide curative care. Treatment is provided free of charge to all nutritionally blind children. A Vitamin A camp was held at Kovilpatty.

Vitamin A Supplementation in Newborns (VASIN Study)

The first Data and Safety Monitoring Committee meeting of the study was held on September 6-7, headed by the Chairman, Prof. Ramalingaswamy, Advisor, Government of India, AIIMS, Delhi. The committee recommended increasing the sample size from 6000-9000 live births. The reviewers placed the quality of the research in the community as one of the finest in terms of the integrity with which it is being carried out, involvement of the community and maintaining high ethical standards.

Conferences Attended

Dr. Lakshmi Rahmathullah

Refresher course in reproduction and child health
Gandhigram, January 2

- *Effect of Vitamin A deficiency on mortality and morbidity in children*

Nutrition Network Meeting organised by UNICEF
Coimbatore, February 18

- *Choices and options for reducing micro nutrient deficiencies*

CAMHAD meeting

Bangalore, November 28

- *Emerging trends in nutritional blindness due to Vitamin A deficiency*

She also attended the following meetings:

Task force meeting of Practitioners of Alternative System of Medicine organised by UNICEF on April 17

UNICEF meeting to develop protocol for Spirulina study at Chennai on July 15 and 16

Tamil Nadu State Paediatric conference on August 21

National Institute of Nutrition meeting for elimination of malnutrition in India on November 24

Nutritional Network Executive Committee meeting on December 8



Ongoing Research Projects



*Dr. VR. Muthukkaruppan,
Dr. S.R. Rathinam and Ms.K. Bhavani*

Aravind's Medical Research Foundation initiates several research projects to investigate issues concerned with causes and treatment of various eye diseases and problems related to delivery of eye care.

The large volume of patients, sophisticated data management systems and the close link with the community provide excellent research opportunities. A number of research projects are undertaken in collaboration with world renowned universities and institutes. Dr. VR Muthukkaruppan former Vice Chancellor of Bharathidhasan University, Tiruchy has joined as the Director of Research.

Vitamin A Supplementation in Newborns (VASIN) Study

Investigators	:	Dr. Lakshmi Rahmathullah,
Co-Investigators	:	Mr. R.D. Thulasiraj, Prof. A.V. Sadanand, Dr. Joanne Katz
Collaborators	:	Dr. James Tielsch, Johns Hopkins University, Baltimore, USA
Duration	:	1998-2001



*Dr. James Tielsch and Dr. Joanne Katz at the VASIN
Data and Safety Monitoring Committee Meeting*



Vitamin A administration to a newborn

The study seeks to determine whether Vitamin A supplementation in newborns within 48 hours after delivery will reduce infant mortality, respiratory tract infection, diarrhoeal diseases and improve growth in newborns. The study is being conducted at Karyapatty and Natham Blocks in South Tamil Nadu.

The Data and Safety Monitoring Committee of the VASIN study met on September 6 and 7, 1999. Dr. James Tielsch and Dr. Joanne Katz, Johns Hopkins University, USA, Dr. Ramalingaswamy, Delhi, Dr. Vijayaraghavan, Hyderabad, Dr. Sundar Rao, Vellore, Dr. Jeyam, Chennai and Dr. Vijaya Srinivasan, Gandhigramam were the Committee members.

Glaucoma Management Studies

Several clinical drug trials have been completed recently or are in progress. These include:

- The additivity of latanoprost, a prostaglandin analogue to brimonidine, the newer ocular hypotensive and neuroprotective drug.
- The clinical trial to assess additivity of latanoprost to β -blockers in primary open angle glaucoma is currently in progress.
- The effect of cataract lens extraction by phacoemulsification with posterior chamber lens implantation on the frequency doubling perimetry, is nearing completion, and the data is to be analysed shortly.

Role of Antioxidants in Cataract Prevention

Investigator : Dr. M. Srinivasan, Aravind Eye Hospital, India

Collaborator: Dr. David Gritz, Francis I Proctor Foundation, USA,

Duration : 1998 - 2001



Ms. Brinda Priyadarsini and Dr. David Gritz with field workers at a community meeting



Meeting the community

The study, a double masked, randomised, community based clinical trial, seeks to determine the potential of oral antioxidant supplementation in retarding the progression of cataracts in South India and to determine epidemiological factors which influence the progression of cataracts in South India in the control sample.

To ensure continued participation in the study, the study team decided to conduct meetings with the subjects in their villages to talk about the study, its importance and seek their continued co-operation.

The Data and Safety Monitoring Committee of this study met on March 5, 1999. It was attended by Dr. David Gritz, Dr. John Witcher, Dr. Stephen McLeod, Dr. Paul Lietman, and Dr. Tom Lietman from Proctor Foundation, USA, Dr. John H. Wilkins, Devers Eye Institute, Fortland, Oregon, USA and Dr. Scott Smith from King Khaled Eye Hospital, Riyadh.

Research in Ophthalmogenetics

In collaboration with University of Iowa, USA

a. Molecular genetics of inherited diseases (Project I)

b. Genetic analysis of congenital glaucoma

Research in Uveitis

a. Evaluation of Polymerase Chain Reaction (PCR) and other parameters for detection of intraocular tuberculosis in South Indian patients

Investigators : Dr. Rathinam Sivakumar, Dr. P. Namperumalsamy
Collaborator : Indian Council of Medical Research (ICMR)
Duration : 1997-2000

Diagnosis of intraocular tuberculosis is difficult because of its varying presentation and non-availability of intraocular fluids or tissues for microscopic examination. Even when obtained, the amount is not sufficient for routine bacteriological work up. Polymerase Chain Reaction is the technique that needs only very minimum amount of body fluids or tissues. Hence the study is designed to do Polymerase Chain Reaction in intraocular fluid and then the results will be compared with the already available diagnostic parameters for tuberculosis in clinically diagnosed intraocular tuberculosis cases.

b. Value of culture and serology in ophthalmic complications of leptospirosis

Investigators : Dr. Rathinam Sivakumar, Dr. P. Namperumalsamy
Collaborator : Indian Council of Medical Research (ICMR)
Duration : 1999-2000

Leptospirosis, a water-borne bacterial disease is highly prevalent in Tamil Nadu. It causes fever, and as a late complication, the patient suffers from uveitis. Onset of uveitis may vary from one month to four years after systemic leptospirosis. The study is designed to understand the antibody dynamics that are responsible for the onset and course of the uveitis.

VI. Development and Testing of Indian Visual Function Questionnaire (IND-VFQ)

Collaborating Investigator : Mr. R.D Thulasiraj
Collaborating Institutions : Multi-centric study with R.P. Centre for Ophthalmic Sciences, Delhi (Central Coordinating Centre) & Sarojini Devi Eye Hospital, Hyderabad
Duration : 1998-2002

Clinical intervention to improve vision is essentially to improve the quality of life of individuals. However, there is currently no reliable way to measure changes in quality of life. The objective of this research is to develop a set of questions and a process to measure this in the Indian context. This is a multi-centric study in which Aravind-LAICO is one of the three participating centres. The study is being carried out at Aravind Eye Hospital, Theni. The first stage was the pilot study, which ended in July 1999, during which four focus group discussions and 32 semi-structured interviews were carried out with patients having various eye problems. The main study commenced in September, 1999 and involves collection of data from 16 focus group discussions, which are both hospital and community based and spread across male and female patients.

Aurolab

Aurolab, the manufacturing division of Aravind Eye Hospital, was started with the mission of supplying high quality ophthalmic consumables at prices affordable to the common man in the developing countries. Since its inception in 1992 as a non-profit charitable trust, Aurolab has set up manufacturing facilities to produce intraocular lenses (IOLs), suture needles, pharmaceuticals and spectacle lenses. The international organisations that actively participated in developing the various activities at Aurolab include Seva Foundation, USA, Sight Savers International, UK, Combat Blindness Foundation, USA, Seva Service Society, Canada, CBM International, Germany, CIDA, Canada, Al-Noor Foundation, Saudi Arabia. Aurolab products are supplied primarily to non-profit eye care programmes at affordable price. Into its eighth year of operation, Aurolab has made significant progress in the year 1999.

Intraocular lens division

The intraocular lens division grew considerably to satisfy its main mission of supplying high quality IOLs for eye care programmes. The production and sale of lenses registered an impressive 40 percent growth over the previous year. Aurolab has supplied more than 1,500,000 lenses to non-profit users in India and 85 other countries worldwide since its inception in 1992.

Aurolab lenses received the prestigious CE mark certification from the Danish Certifying Agency, DGM. This product certification is mandatory for the sale in the European Union (EU) countries. Aurolab is the first Indian manufacturer to receive this product quality certification for IOLs. In order to meet the emerging demand from customers, the lens division is planning to expand its capacity and product range by including foldable lenses.

Suture needle division

The suture needle division was commenced in 1998 to further bring down the cost of the cataract surgery. The nylon and silk range of ophthalmic suture needles supplied by Aurolab at affordable price has been well appreciated by the non-profit users. The production and sale of suture needles increased considerably compared to the previous year. Additional equipment was added to increase the production capacity. Aurolab suture needles also received the CE mark certification.

Seva Foundation, USA, one of Aurolab's supporters, has developed a new organization called SutraTec, based in the United States. SutraTec's mission is to make the full range of suture product for all medical specialties available to non-profit programmes in developing countries at affordable prices. Presently, only 10% of the world's suture



CE mark certificate for IOLs and suture needles



Mr. David Green, Dr. P. Balakrishnan, Mr. R.D. Thulasiraj, Mr. James O'Dea, Mr. Richard Weingarten, Mr. Hans Schoepflin and Mr. G. Srinivasan at the SutraTec meeting

product goes to the developing countries where 70% of the world's people live. SutraTec and Aurolab hope to address the great needs of programmes serving the poor in developing countries. SutraTec will also sell regulatory approved products to commercial users throughout the world. Surplus revenue from SutraTec operations will be passed on to Seva Foundation to support eye care programmes worldwide. SutraTec and Aurolab together hope to establish a paradigm of "compassionate capitalism" that insures provision of quality medical products for all members of our human family.

The suture needle division is planning to add bigger size needles, other point design, and additional suture materials. The aim is to supply the 6-0 to 10-0 size range of suture needles commonly required by the customers. Since the demand for ophthalmic suture needles is expected to decline due to the introduction of sutureless surgery, Aurolab is planning to produce suture needles for other medical specialties also.

Pharmaceutical division



Microbiology laboratory for in-house testing

The pharmaceutical division is manufacturing more than 16 ophthalmic drops including steroids, anti-inflammatory, anti-bacterial and cyclic drugs for in-house use at Aravind Eye Hospitals. The viscoelastic (HPMC) and silicone oil products are well accepted in the outside market also due to their high quality and affordable price. Aurolab registered these two products under the trade names Aurovisc and Aurosil. A modern microbiology laboratory was established to provide in-house testing services for pharmaceuticals and other Aurolab products.

Pilot production of fluorescein sodium strips, a new diagnostic product, was initiated and it is well accepted at Aravind Eye Hospitals. Based on the demand for this product from other users, Aurolab is planning to market this product after receiving the required license from the Indian Drug Controller.

The future plans of pharmaceutical division include manufacture of viscoelastic in pre-filled syringes, anti-viral, anti-fungal drugs and viscoelastic based on Sodium Hyaluronate.

Spectacle lens division

Aurolab established its spectacle lens division to provide manufacturing support for the optical shops at Aravind Eye Hospitals. The need for an in-house processing facility was identified as the first major need to meet the increasing customer demand for quick service and lightweight plastic lenses. Aurolab collaborated with the local subsidiary of Essilor, one of the major plastic lens suppliers, to establish a facility for



Prof. Fred Munson, Dr. P. Balakrishnan and Mr. R. D. Thulasiraj at the spectacle lens production facility

producing prescription plastic lenses using imported machinery. The production commenced on February 1999. In its first year of operation the facility has utilised more than 50 percent of its surfacing capacity and more than 90 percent of lens edging capacity.

The spectacle lens division has plans to increase the production capacity by purchasing additional machinery. Preparations are also underway to establish in-house production facilities at Aravind Eye Hospitals in Coimbatore, Tirunelveli and Theni. The production facilities will also be used to expose the various clinical staff to modern spectacle lens production techniques.

Partners in Service

Aravind gratefully acknowledges the following organisations and institutions for their continued support to Aravind in its efforts to fight blindness. These institutions play an important role in Aravind's work by enriching Aravind's resources through various means.

For service delivery, human resource and other developmental activities

- Allied Dunbar Trust, Swindon, UK
- Canadian International Development Agency (CIDA), Canada
- Combat Blindness Foundation, USA
- CBM International, Bensheim, Germany
- International Eye Foundation, Bethesda, USA
- International Federation of Eye Banks, Baltimore, USA
- Lions International, Oakbrook, Illinois, USA
- Rotary International, Maryland, USA
- Seva Foundation, Berkeley, USA
- Seva Service Society, Vancouver, Canada
- Sight Savers International, Haywards Heath, UK
- Voluntary Service Overseas (VSO), UK

For research

- Alcon Pharmaceuticals, Fort Worth, Texas, USA
- Allergan Inc., Irvine, USA
- Department of Ophthalmology, University of Iowa, USA
- Humphrey Instruments, Berkeley, USA
- Indian Council of Medical Research (ICMR), New Delhi, India
- Johns Hopkins University, School of Hygiene and Public Health, Baltimore, USA
- Johnson & Johnson, Florida, USA
- London School of Hygiene and Tropical Medicine, UK
- National Eye Institute, Bethesda, USA
- Netherlands Ophthalmological Research Institute, Amsterdam, Netherlands
- Proctor Foundation, San Francisco, USA
- Royal Tropical Institute, Amsterdam, Netherlands
- University of Maryland, Baltimore, USA



*Standing: Ms. Lorri Carruthers-IEF, Ms. Kay Tims-Seva volunteer, Ms. Maxine Harrington-VSO, Mr. Hal Holt-Seva Service Society Volunteer, Mr. Saravanan-LAICO faculty, Dr. Neil Smith-Seva Volunteer, Canada, Mr. Nick Blewer-Allied Dunbar
Seated: Ms. Terry Mandel-Consultant, Ms. Dechen Tsering-Seva Advisor, Mr. Nagarajan-Consultant, Prof. V. Srinivasan-LAICO faculty*



Dr. Kim and Dr. Narendran at the Alcon R&D Department at Fort Lauderdale, USA

Volunteers and Visitors

- Dr. Wallace Lee Alward and Dr. Edwin Stone, University of Iowa, USA, were at Aravind as resource persons for the Ophthalmogenetics Symposium. They also assisted in planning the growth of Aravind's Genetics Research Laboratory.
- Dr. Mike Patella, Zeiss Humphrey Systems, USA together with Mr. Andres Heiff, has developed automated perimetry in glaucoma. He spoke to Aravind residents and staff on interpretation of automated perimetry.
- Dr. Dick Leuker and his wife Meg from Albuquerque, USA were here to interview Aravind staff for the proposed documentary on Dr. G. Venkataswamy and Aravind.
- Optometrist Dr. Jordan Kasslow and Mr. Scott



'Harmony', the Aravind Guest House is 'Home Away from Home' to hundreds of volunteers and visitors who come to Aravind

Berrie from New York, USA, were at Aravind for initiating a project to supply ready made spectacles for presbyopic rural population in developing countries.

- The following were here as Postgraduate education examiners:
Mrs. & Dr. Rajappa, Regional Inst. Of Ophthalmology, Egmore, Chennai
Dr. D. Ravi Prakash, Minto Eye Hospital, Bangalore
Dr. George Thomas, R.I.O Govt. Ophthalmic Hospital, Trivandrum
- Mr. Todd Robin, USA came here as a volunteer to work on a clinical quality assurance system.
- Dr. Bharat Ghodadara, M&J



Dr. Wallace Lee Alward, Dr. Hiva Narayanan Prasad with Dr. R. Ramakrishnan and Dr. S.R. Krishnadas



Dr. G. Venkataswamy with Dr. Dick Leuker and Meg in Michigan, USA

- Oph. Inst. Ahmedabad for the Medical Council of India Inspection
- Ms. Gillian Rudduck Eyre, Optometrist, UK came to give further training to optometrists and ophthalmic assistants.
- Mr. Roger Clare, Seva Volunteer from UK helped in the language editing of the Ophthalmic nursing manual.
- Dr. S. F. Von Welk, First Counsellor for Science, Technology and Environment, Embassy of Federal Republic of Germany
- Mr. Karoki Lewis, photo journalist, London,
- Dr. Lan Hass, Canada
- Dr. Ranjit H. Maniar, President, Bombay Ophthalmologists Association
- Dr. Gabor Scharioth, and Dr. Ulrich Velhagen, Germany
- Ms. Carol Puzone, ORBIS, USA
- Dr. Wang, Dr. Jia, Shanxi Eye Hospital, China
- Mr. A.P. Jain Accounts officer and Financial Consultant, Ministry & Family Welfare, Govt. of India, New Delhi
- Mr. K.M. Sarfaraz Hossain, Bangladesh, Hospital Administrative Trainee
- Dr. Surendar Dwarakanathan, Albany Medical College, USA
- Dr. Zafarullah Chowdhary, Gonoshostho Parishad Kendra, Bangladesh
- Mr. M.S.S. Ramanujam, Chennai
- Mr. Anant Subramaniam, Amrita Institute of Management, Coimbatore
- Prof. K. Ramakrishnan, Bharathiar University, Coimbatore

- Dr. Ingrid E. Zimmer Galler, The Wilmer Ophthalmological Institute, USA
- Dr. Md. Fazlul Huq, Asst. Professor, Bangladesh
- Dr. Gerald Cagle, Alcon, USA
- Mr. Mike Hemric, Alcon, USA
- Dr. Jacob T. Wilensky, Univ. of Illinois, USA
- Dr. S. Chandrasekhar, Kakinada
- Dr. Kjell Dahlen, USA
- Dr. Saman Ghahremani, USA
- Mr. Mike Wills, UK



Mr. Saravanan with Mr. Nick Blewer



Ms. Mary Munson with Ms. Karpagam

Sight Savers

- Ms. Catherine Cross, Sight Savers, UK and Mrs. Alice Crasto, Sight Savers, Mumbai, visited LAICO to review the status of various projects organised by Aravind Eye Hospital, LAICO & Aurolab in collaboration with Sight Savers. They also visited Aravind Eye Hospital, Coimbatore.

Seva Foundation

- Dr. Suzanne Gilbert, Director, Sight Programs, came to review the several collaborative activities with Aravind and LAICO.
- Mr. James O'Dea, Executive Director came with Mr. David Green, Mr. Hans Schoepflin and Mr. Richard Weingarten to assist Aurolab to strengthen the marketing of the suture production.
- Dr. Gonzalo Enrique Cruz Diaz
- Ms. Maria Pilar Gonzales

Zurich Financial Services

- Ms. Linda Perry and Mr. Darren O'Conner of the India Programme came to conduct the periodic review
- Mr. Simon Day was at Aravind to work on the Productivity Improvement Assignment.
- Mr. Nick Blewer, was at Aravind for the Documentation of Vision Building Process
- Mr. Ian Lovett, Chairman of the Allied Dunbar Foundation

Resource persons for research

- Dr. Leon Ellwein, National Eye Institute, USA and Dr. Sergio Munoz, Bio-statistician, Chile - Technical Advisory Committee members of Sivaganga Survey came to help in final data analysis.
- The following attended the Data and Safety Monitoring Committee Meeting of the VASIN study:

- Dr. James Tielsch and Dr. Joanne Katz, Johns Hopkins University, USA,
- Dr. Ramalingaswamy, Delhi
- Dr. Vijayaraghavan, Hyderabad
- Dr. Sundar Rao, Vellore
- Dr. Jeyam, Chennai
- Dr. Vijaya Srinivasan, Gandhigram
- Dr. Emmett Cunningham, Proctor Foundation, USA, was at Aravind for Epidemiological Survey of uveitis in South India vs. Uveitis in San Francisco. During his visit he screened those uveitis patients who were part of the study.
- The following attended the Data and Safety Monitoring Committee Meeting of the 'Study on the Role of Antioxidants in Cataract Prevention':
- Dr. David Gritz, Dr. John Whitcher, Dr. Stephen McLeod, Dr. Paul Lietman and Dr. Tom Lietman from Proctor Foundation, USA

Dr. John H. Wilkins, Devers Eye Institute, Portland, Oregon, USA

Dr. Scott Smith from King Khaled Eye Hospital, Riyadh

- Dr. Alan Robin, Johns Hopkins University, USA was at Aravind to discuss the forthcoming glaucoma clinical trials.
- Ms. Martine Donaghue from the London School of Hygiene and Tropical Medicine came for training facilitators of the Indian Visual Function Questionnaire (IND-VFQ) Study
- Ms. Nisha Acharya, Medical Student, UCSF, came to study Aravind and the Proctor Foundation Collaborative Study in Uveitis.
- Ms. Kathy Welch was here at Aravind to assist in statistical analysis of the Cambodia Blindness Survey
- Ms. Andrea Henrie, Seva Volunteer, USA came to help with the Ophthalmic Assistance Programme. She also helped in preparing the report for the consideration of the Committee on Accreditation for Ophthalmic Medical Personnel. She helped in the editing of the ophthalmic nursing manual.
- Mr. John Lord, Lions International, USA
- Dr. Gerald Cagle, Alcon, USA
- Dr. Mike Hemric, Alcon, USA
- Dr. Edward Cotlier, New York, USA

Resource persons for staff and organisational development

- Ms. Kris Muller, Seva Volunteer, USA observed activities of patient counselling and gave suggestions for further improvement
- Prof. Fred Munson came to discuss furthering the work of LAICO, Vision Building and



Dr. Wilbur Hoff with Dr. CAK. Shanmugham, Dr. Shantha, Ms. Brinda at the site of the Antioxidant study



Dr. Stuart Roxburgh and Dr. John Shilling from the Royal College of Ophthalmologists, London, UK with Dr. Prajna and Mr. Manimaran

provided training on mentoring to various levels of staff. He also addressed the ASSEFA staff on "Principles of Management."

His wife Mary helped with various interior designing details at LAICO and Aravind and in improving the facilities in the Janakiamma Child Care Centre.

- Ms. Maxine Harrington, Volunteer, Voluntary Services Overseas, England and Hal Holt, Seva Service Society Volunteer, Canada are here to work with the Human Resources Team at LAICO as HRD advisors to develop human resource processes within Aravind Institutions.
- Dr. Wilbur Hoff, Seva Volunteer, USA imparted 'Training of Trainers', helped in developing health education course curriculum as a one month training programme and gave suggestions for development of Primary Health Care Systems and activities of Village Health Animators
- Mr. Will Schnek, Seva Volunteer, USA helped to install a new mail server.
- Ms. Martha Moore, Seva Volunteer, USA is here on a three month visit to develop the budgeting system.

- Ms. Terry Mandel, Seva Volunteer, USA and Dr. Neil Smith, Seva Volunteer, Canada were here to facilitate the activities that lead to further development of the organisation.
- Ms. Julie Johnston, Seva Volunteer, USA came to work on the final editing of the Quality Cataract Surgery Series.

Resource persons for Vision Building Workshop:

- Mr. Nagarajan, Hyderabad
- Ms. Dechen Tsering, Seva Foundation; USA
- Ms. Kay Timms, Seva Foundation, USA
- Ms. John Barrow, International Eye Foundation, USA
- Ms. Lorri Carruthers, International Eye Foundation, USA
- Mr. Thanawala, Sight Savers, Mumbai
- Mr. Arun Khadilkar, Sight Savers, Mumbai
- Dr. Moses Chirambo, Lions SightFirst Eye Hospital, Malawi
- Ms. D. Christine Simon, Seva Volunteer, USA, Workshop for Lions Eye Hospitals

MRCOph Examiners:

- Dr. Stuart Roxburgh, The Royal College of Ophthalmologists, London, UK
- Dr. John Shilling

Awards and Honours



Receiving the Diwaliben Mohanlal Mehta Award



At the JCAHPO Award ceremony in Orlando, USA

*In celebration of the
vision and inspiration of*
DR. GOVINDAPPA VENKATASWAMY
Seva Foundation establishes the
VENKATASWAMY SEVA
AWARD FOR
COMPASSIONATE ACTION



*Presented by the
Seva Foundation Board of Directors
October 1999
Berkeley, California*



In 1999, many national and international organisations conferred various awards to Dr. G. Venkataswamy reiterating his hard, sincere, dedicated and devoted work towards eliminating needless blindness.

Diwaliben Mohanlal Mehta Award

for Noble and Outstanding Contribution to the Prevention of Blindness.

Conferred on him on January 8, at Mumbai. The award includes a cash prize of three lakh rupees and a citation.

Mahaveer Award 1999

for Excellence in Human Endeavour in the Sphere of Medicine & Education

by Bhagwan Mahaveer Foundation, Chennai on April 3.

Award for Life Time Achievement in Excellence in Ophthalmology

by the Bombay Ophthalmologists Association (BOA), at the Mid Year Ophthalmology Conference, Premillennium, Mumbai, on June 3.

Award in Recognition of Lifetime Dedication to the Prevention of Blindness

by the International Agency for the Prevention of Blindness (IAPB) at the Sixth General Assembly in Beijing, China, on September 9.

Statesmanship Award

by the Joint Commission on Allied Health Personnel in Ophthalmology (JCAHPO) in USA, on October 22.

Award for Outstanding Contribution in the field of Ophthalmology

by Giants Group of Madurai, on November 25.

Seva Foundation, USA has established the 'Venkataswamy Seva Award for Compassionate Action' in Dr. G. Venkataswamy's name for exemplary work in Blindness Prevention.



Rotary Humanitarian Service Award to Dr. G. Natchiar at Chidambaram



Felicitations and Citation to Dr. P. Namperumalsamy, at the Vishakapatnam Ophthalmic Association on March 28.



Jawa Oration Award to Dr. S.R. Krishnadas

Rotary Humanitarian Service Award
for Contribution Towards the Cause of Blindness Prevention and Control

was conferred on Dr. G. Natchiar by the Chidambaram Mid-Town Rotary Club, on February 21.

Mukthi Bandhu – 1998

for Contribution Towards Outstanding Performance in Social Service

was conferred on Dr. R. Ramakrishnan by the Indian Red Cross Society, Adoor, Kerala.



Dr. Mahendra Chandra Mishra Memorial Oration Award to Dr. N.V.Prajna

Jawa Oration Award

for Dr. S. R. Krishnadas and

Dr. Mahendra Chandra Mishra Memorial Oration Award

for Dr. N.V. Prajna
by Mr. Niranjana Patnaik, Health Minister, Orissa on April 12.

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Mrs. Lalitha

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Joint Director

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Project Director

Dr. C.A.K. Shanmugham, BSSc.,
DE (Prague)

Administrator

Mr. R.D. Thulasiraj, MBA

Director - Research & Immunologist

Dr.VR. Muthukkaruppan, Ph.D.

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Dr. Rathinam Sivakumar, Dip.NB

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PHYSICIAN

Dr. Banu Shree, MD

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Dr. Subhash Gupta, MS

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Dr. Neeraj Kumar Singh, MS
Dr. Praveen Kumar Reddy, MS
Dr. Datla Ravi, MS

Aravind - Theni

Chief Medical Officer

Dr. D. Datta, Dip.NB

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Mr. R.D. Thulasiraj, MBA

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Institute Faculty:

Dr. K.V. Santha, MBBS, BSSc.
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Mr. A.K. Sivakumar, MHM
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Aravind Eye Hospitals

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Dr. Deepa Rajeswari



Dr. Parag Kirit Shah

MRCOph.: Membership of the Royal
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Dr. P. Anand



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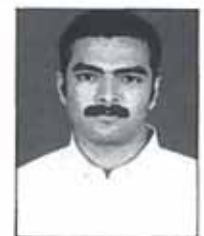
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