

Siloam Thomas Eye Hospital





Dr. Devdutt Thomas

Director & Consultant Ophthalmic Surgeon



Dr. Sarojini Thomas Founder and Chairman

A Legacy of Timeless Service that Lives on...
A Bouquet of Milestones Achieved

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.... Lives of great men all remind us

We must make our lives sublime

Hnd, departing, leave behind us

Footprints on the sands of time....

The above lines by the famous poet H.W. Longfellow sums up the quest to provide high quality eyecare to the less fortunate and to leave an indelible mark in the field of ophthalmology over the last 43 yrs.

Dr. Sarojini Thomas was highly inspired during her tenure of study at CMC Vellore by the great visionary Dr, Ida Scudder, so she decided to follow the vision of her mentor who believed in compassionate and loving service to under privileged.

This became the guiding principle in all their actions. Over the last 43 years the hospital has functioned excellently and provided the less fortunate with compassionate eye care through the eye camps, operations and in the day-to-day routine work.

Now it is time to look at all the milestones of the hospital which have been summed up in the pages in the magazine....



DR. SAROJINI THOMAS

M.B.B.S, D.O (London) F.O.R.C.E

#### **Chairman and Founder**

#### **Chairman's Message**

Dr. Sarojini spent many years in the 60s being trained in the UK working in hospitals in Newcastle-Upon-Tyne and in the London area before returning to Coimbatore in South India to set up Thomas Eye Nursing Home in 1978. She recruited a team of volunteers who believed that the poorest of the poor should have the benefit of the most innovative sight-saving equipment available today. Alleviation of Cataract blindness was the main theme of Community eye care project in the past which included conducting free eye camps and free surgeries.

Today, the hospital has state of the art eye care facilities to provide treatment by modern methods and Dr. Sarojini Thomas's son Dr. Devdutt Thomas a top-notch eye surgeon, carries on the ministry and vision of his mother and takes an active part in the operations of Siloam Eye Hospital. Over the years this eye hospital and its dedicated medical staff have literally saved the eyesight of thousands of people who would not have received any kind of medical treatment due to their inability to pay. Cataract surgery, as well as Glaucoma treatment, is being done here at nominal costs for the society at large.



#### **DR. DEVDUTT THOMAS**

M.B.B.S, D.O, D.N.B

#### **Director and Chief Ophthalmologist**

Having been trained in OEU Institute of
Ophthalmology in Manipal and Christian
Medical College, Vellore, it is indeed a great
privilege for me to present Siloam Thomas
Eye Hospital as an established comprehensive
Eye Care system in Coimbatore with an idea
to showcase our quality eye care and

commitment to our patients at affordable costs.

We envision a future marked by growth, fulfilling our mission to provide the best and most comprehensive eye care to the society, using our state-of-the-art facilities and advanced technology, backed up by well trained & dedicated hospital staff. We strive to do our best by giving good medical, surgical, and nursing care and advice to each of our patients in an ethical environment.

We have a fully equipped Air-conditioned operation theatre with modern microsurgical instruments. We are in a constant endeavour of acquiring knowledge, skills and upgrading our infrastructure to keep up with the global standards in Ophthalmology.



#### **Well-wishers and Philanthropists**



Richard Norton

Director-Siloam UK

Dear Dr Dev Thomas, Dr Sarojini, hospital team members & honoured guests at Siloam Thomas Eye Hospital

Today I understand it is the 28th of March when you are having a formal inaugural launch of the new Optopol Revo Fundus Camera. We understand this may be the first, if not one of the very first machines of this type in India so we are honoured to stand with Dr Dev and his dedicated team enabling them to own such a device to improve the failing vision of many in this part of South India.

I understand as a layman, that the Optopol machine will provide Retinal scans suitable for the early diagnosis of Diabetic Retinopathy and Age-Related Macular Degenerations. This means that by having this latest piece of optical hardware on site in the Siloam Thomas Eye Hospital here in Coimbatore, you will be able to treat patients with the latest equipment available so there will be no need to refer patients to other hospitals for treatment. This will indeed help Dr Dev and his dedicated team to be able to offer the latest technology available to patients who would otherwise not be in a financial position to afford such outstanding eye care.

Dr Dev and his team over the years have performed outstanding medical procedures on the eyes of the visually impaired and I have seen for myself, in his operating theatre, modern medical miracles taking place to save precious eyesight.

As some of you will know, it was the inspiration of our late Founder, The Rev Dr Karl Becker who saw the need when he came to India in the 1970s to help so many folks who were going blind at that time, simply through undetected or un-operated cataracts.

I was invited to come to India back in July 1982 and my first eye camp ministry induction was at the nearby town of Erode where I witnessed a team of 6 doctors working tirelessly on the eyes of the blind, who over a period of 6 days operated on several hundred patients. I had seen nothing like this in my brief experience in the developing world which had earlier taken me to Somalia, Kenya, Uganda, and Angola. What I witnessed back in 1982 has remained with me as an inspiration. When I managed to establish the ministry of Siloam in the United Kingdom, I was determined to continue to raise funds for the visually impaired particularly in India, because I knew of the importance of restoring eyesight to the blind so that those unfortunate individuals should no longer be a burden on the rest of their families.

Over the years I have witnessed genuine compassion and highly skilled operations performed at the Siloam Thomas Eye Hospital. I pledge to keep supporting Dr Dev and his other co-workers at least until the time of my retirement, by which time hopefully the Optopol machine will be fully paid for.

We must admire the vision of Dr Dev and the hospital financial committee to have the courage to step out in faith to obtain a loan from the bank so that this hospital can remain at the forefront of providing affordable eye care for those in desperate need of the latest treatments available.

Before closing, I would just like to remind everybody present of the spiritual inspiration for the ministry of Siloam, we can read from the New Testament in John chapter 9 in the first 7 verses that will explain Dr Karl Becker's motivation.

"As Jesus was walking along, he saw a man who had been blind from birth. "Rabbi", his disciples asked him, "Why was this man born blind? Was this because of his own sins or his parents' sins?"

"It was not because of his sins or his parents' sins," Jesus answered. This has happened so the power of God could be seen in him. We must quickly carry out the tasks assigned to us by the One who sent us. The night is coming, and then no one can work. But, while I am here in the world, I am the Light of the World."

"Then He, that is Jesus, spat on the ground, made mud with the saliva, and spread the mud over the blind man's eyes. He told him, go wash yourself in the Pool of Siloam (Siloam means Sent). So, the man went and washed and came back seeing."

The man was healed because he was obedient to the words of Jesus Christ. He then walked through the streets of Jerusalem with his eyes covered in mud, no doubt being led by another, until he reached the Pool of Siloam where he washed. Miraculously, the man was able to see again, and he quickly returned to Jesus to give testimony to this fact."

This was the inspiration of Siloam's ministry back in the early 1970s and although the Siloam ministry is no longer in existence in Germany, the baton has been passed to us here in the UK so that we can continue to provide funds so that people who need vital optical remedial treatment for their visual impairment, can be treated by Dr Dev and his dedicated team in Coimbatore.

I therefore commend the Siloam Thomas Eye Hospital and their acquisition of the new Optopol Revo Fundus Camera to you all, may it be used for the glory of God. The dedicated staff are now much more empowered to detect Retinal disorders, and provide useful and speedy diagnosis to patients, who are in desperate need of the skills and dedication of Dr Dev and his team. We are therefore very privileged to help fund and thus recommend this important medical acquisition to you today. – Thank you

**Richard Norton** 

Director-Siloam UK



TV Suresh
Secretary & Correspondent
Vidya Vikasini Society (Regd.)

Dear Dr. Dev,

Greetings from Vidya Vikasini Institutions!

I am extremely delighted to note that Siloam Thomas Eye Hospital is inaugurating a new state of the art equipment called Optical Coherence Tomography (OCT). At the outset on my personal behalf as well as Vidya Vikasini Institutions we would like to wish Siloam Thomas Eye Hospital the very best in the service of eye and eye care going forward on this auspicious occasion.

Vidya Vikasini Institution and Siloam Thomas Eye Hospital go a long way in terms of service to the humanity, former for education and latter for quality eye care.

The founders of the two great Institutions (Late) Smt. S S. Jayalakshmi and Dr. Sarojini Thomas respectively have been best friends for decades now and we take pride in cherishing the fact that both you and Dr. Sarojini Thomas are members of Vidya Vikasini Society more than that you have been an old alumnus of the Institution. We take pride in seeing the rapid modernization and advancement that you are spearheading in the field of Ophthalmology, at Siloam Thomas Eye Hospital.

We once again take this opportunity to wish you, Dr. Sarojini Thomas and the staff members of Siloam Thomas Eye Hospital all the very best in the service of eye care and also wish the function slated for 28.3.2021, for inauguration of the OCT machine the very best.

With Warm Regards,

T V Suresh

# Activities of Siloam Thomas Eye Hospital in the Early Days

Free Cataract Screening Camps-900

Free Cataract Surgeries- 30,000+

**School Screening Camps** 

Visit to the Old age homes

Visit to the orphanages

**Optometry Course for Students** 

Eye care Education talks in Schools & Colleges

#### **The Early Days**





Blindness and leprosy were two major ailments which affected the Indian people the most in the early days. Dr. Karl Becker, founder of Siloam Mission to the blind and lepers, visited India to attend Eye camps conducted by Dr Sarojini Thomas in the early 80's and joined hands with her to establish Siloam Thomas Eye Hospital in 1984

The hospital has so far conducted more than 900 free eye camps, screened more than 3 lakh patients, and performed more than 30,000 free cataract surgeries. The hospital is recognized by DBCS (District Blindness Control Society) Coimbatore chapter.





Patients selected for Cataract Surgery were brought to the hospital for Free Cataract surgery and IOL implantation







#### Free Eye Camps in association with Lions Club, Race Course, Cbe











**Checking of Eye Pressure** 

**Vision Screening** 

#### **MILESTONE LAUNCH IN 2012**

## LAUNCH OF Zeiss GDX GLAUCOMA SCREENING MACHINE at the Cosmopolitan Club, Coimbatore.







Gathering of Invitees at the GDx Launch function



Dr. Mammen – Chief Guest along with Dr. George Thomas (Classmates at CMC Vellore)

#### **Glaucoma Awareness Program in the Hospital -2013**

In Association with The Lions club of Race Course, Cbe



Glaucoma Screening - Recording of Intra Ocular Pressure using Applanation Tonometry





## Common Eye Problems in the 40's and 50's

Eye Strain due to prolonged use of Computers and Digital Devices causes
 Computer Vision Syndrome

- Blurring of Near Vision Presbyopia
- Cataract
- Glaucoma
- Diabetic Retinopathy
- Age related Macular Degeneration
- Dry Eyes
- Ocular Trauma
- Occupational Hazards
- Neurological Disorders affecting the Eye
- Low Vision

## Digital Devices and Eye Disorders



Prolonged use of Computers, Mobiles and digital devices can cause Eyestrain, Headaches, Dryness of the eyes and Blurring of Vision This can be managed by following the 20-20-20 Rule The Harmful effects of Blue Light can be managed using Blue Cut Lenses



#### Cataract



Cataract is clouding of the natural lens in the eye which leads to a defective vision. Cataracts often develop slowly and can affect one or both eyes. Symptoms may include faded colours, blurry vision, halos around light, trouble with bright lights, and trouble seeing at night. This may result in trouble driving, reading, or recognizing faces. Poor vision caused by cataracts may also result in

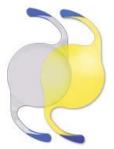
an increased risk of falling and depression. Cataracts are the cause of half of blindness and 33% of visual impairment worldwide. Cataract is a curable form of blindness, where the vision can be completely restored back to normal after Modern Day-care Phaco Emulsification Cataract Surgery and Intraocular Lens Implantation.





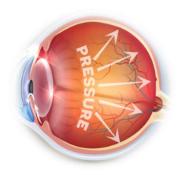


Preloaded IOL Injection system





## Glaucoma



**Glaucoma** (SILENT SNEAK THIEF OF VISION) is a multifactorial disease-causing progressive damage to the optic nerve leading to loss of the field of vision, mostly caused by fluid pressure build-up inside the eye (Intraocular pressure-associated optic neuropathy)



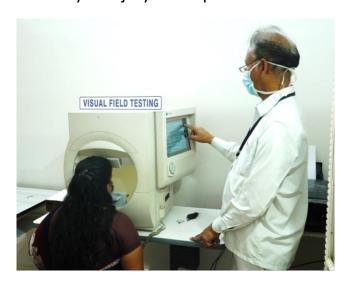
Constricted Peripheral Field of Vision

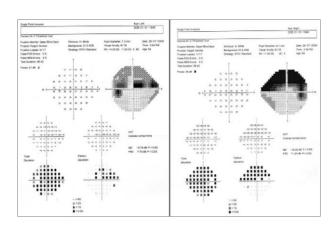
GDx Pro for Analysis of Retinal Nerve Fibre Layer



#### Who are at Risk?

- People of Age > 40 yrs
- Diabetes
- High Blood Pressure
- High Myopia
- Family history
- History of injury to the eye
- History of injury in the past





## Eye camp in Association with Rotary Club



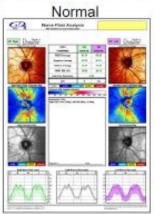


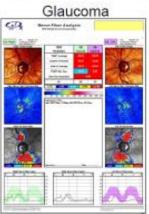


Clinical Orientation given to Ganga Hospital Physician assistant students









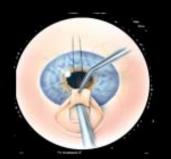
#### Protocol for Diagnosing Glaucoma

- People of Age > 40 yrs coming for an eye check up
- Presenting with Systemic diseases and Risk factors
- High Intraocular pressure recording
- Suspicious optic disc appearance
- GDx Recording / Humphrey field Analysis
- Confirming the findings of Glaucoma
- Treatment and follow up with Anti Glaucoma drops



Anti GLAUCOMA Eye Drops





#### Surgical treatment (Trabeculectomy) if the response to medications is unsatisfactory





## Low Vision Rehabilitation





A person with low vision is one who has impairment of visual function even after treatment or correction of refractive error, and thus has a visual acuity of 6/18 to 6/60 in the better eye or a Visual field of  $< 10^{\circ}$  from the point of fixation, useful enough to plan / execute a task



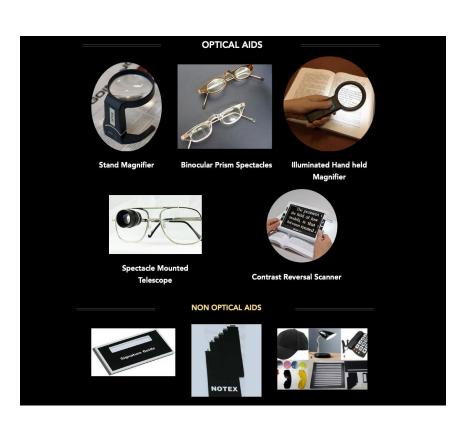
Child with low vision



Distance vision telescope

## Low Vision in Children and Adults

- Congenital Glaucoma
- Congenital Ocular defects
- Retinitis Pigmentosa
- Albinism
- Diabetic Retinopathy
- Heredofamilial Macular Degeneration



## Diabetic Retinopathy



**Diabetic Retinopathy** also known as a diabetic eye disease, is a medical condition in which damage occurs to the retina due to uncontrolled diabetes mellitus and is a leading cause of blindness.

India is the world's capital of Diabetes and is estimated to affect 70 Million people by 2025

and 80 Million by 2030. The present Prevalence of Diabetic Retinopathy in India is estimated to be 21.7% out of which 61.2% are males. 88.6% are between 40-80 years of age, two thirds of patients are from the west and south zones.



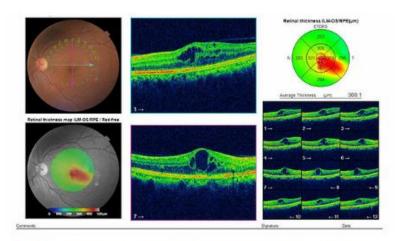
INTRODUCING WORLD CLASS
OPTICAL COHERENCE TOMOGRAPHY
WITH TRUE COLOUR FUNDUS IMAGING



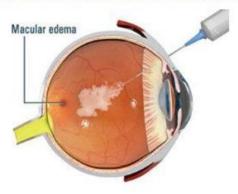


#### **Diabetic Retinopathy**

- A complication of Diabetes that results from damage to the blood vessels of the lightsensitive tissue at the back of the eye (retina).
- Diabetic retinopathy at first may cause no symptoms or only mild vision problems but gradually can result in blindness.
- Anyone who has type 1 diabetes or type 2
  Diabetes is susceptible to diabetic
  retinopathy.
- The Risk factors include duration of diabetes for more than 5 years, HbA1c more than 9%. Smokers, Patients with associated hypertension and increased Cholesterol and Triglycerides
- Uncontrolled Diabetes causes Retinal Bleeding and deposition of Exudates (Diabetic Retinopathy)
- Strict control of Diabetes & periodical eye checkup is a must every 6-12 months
- Treatment is by Inta Vitreal Anti VEGF/ Steroid Injections and Laser Photo Coagulation



OCT Imaging In Diabetic Retinopathy showing fluid collection in the Retina (DME)



Intra Vitreal Steroid Injection / Anti VEGF Injection for Diabetic Macular Edema (DME)





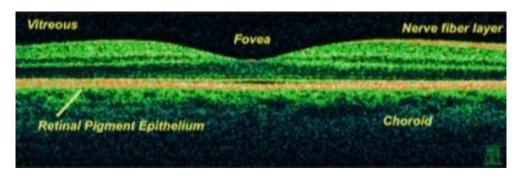
## New Project Launch-2021 Optical Coherence Tomography (OCT)



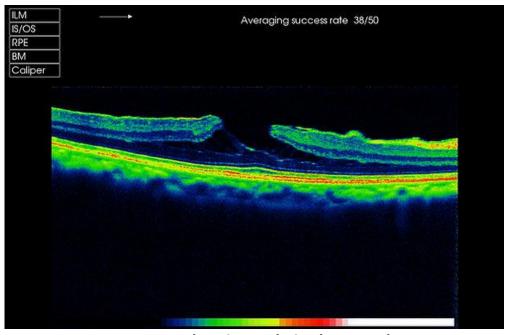
OCT enables visualization of a cross section or 3D image analysis of the retina and detect the early onset of a variety of eye conditions and eye diseases such as macular degeneration, glaucoma and diabetic retinopathy (the top three diseases known to cause blindness).

Everyone over the age of 50 should have an initial baseline OCT scan done even if nothing is wrong. The subsequent follow up scans give an accurate information on progression of diseases if present

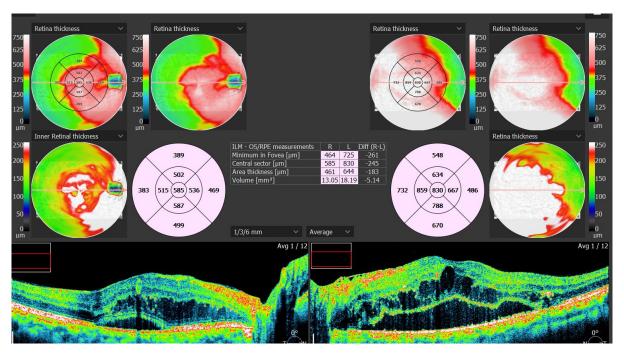
Siloam Thomas Eye Hospital is Proud to Acquire the First Optopol Revo Fundus Camera in India with the advanced feature of Non-Invasive Angiography function which can pick up the earliest retinal pathology due to Diabetes, Glaucoma, Age Related Macular Degeneration and Retinal Vascular Disorders.



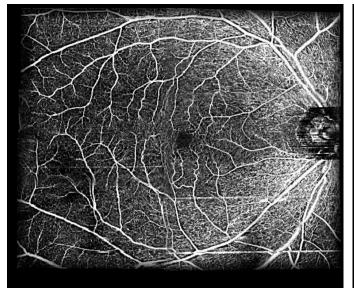
**Normal Cross-Sectional Anatomy of the Retina** 



**OCT Scan showing Hole in the Macula** 



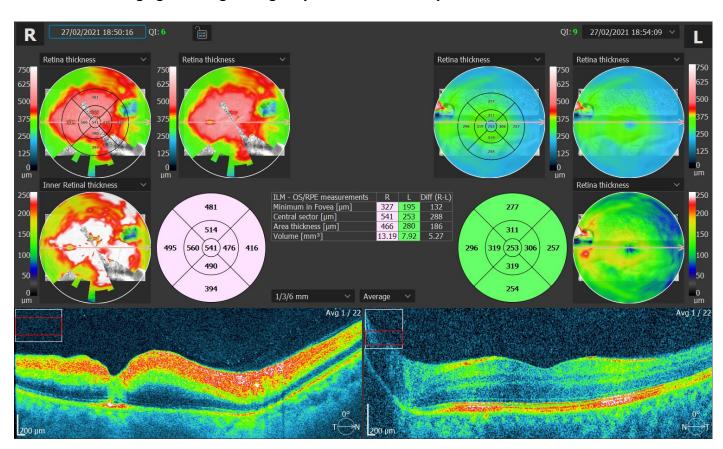
**OCT In Diabetic Retinopathy showing fluid collection in the Retina (DME)** 





**Normal Retinal Angiogram Image of Right Eye** 

**Left Eye Shows Loss of Blood Circulation** 

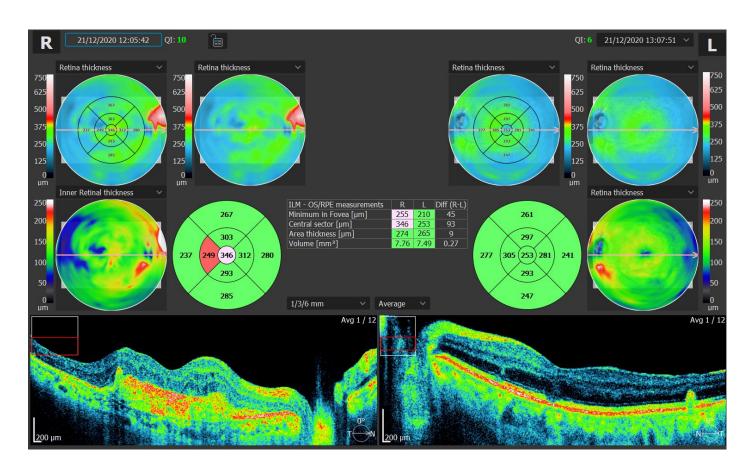


Central Retinal Artery Occlusion in the right eye



**Right Eye Showing ARMD** 

**Normal Left Eye** 



**OCT Image Showing ARMD Changes in the right Eye** 

**Normal OCT of Left Eye** 

The Optopol Revo FC has the advantage of taking Fundus Photography High Resolution OCT Imaging and Non-invasive Angiogram (Retinal Blood Circulation Analysis)

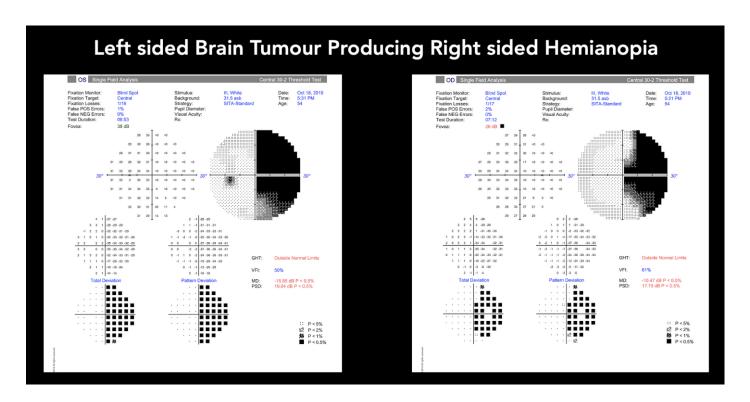
## Neuro Ophthalmology



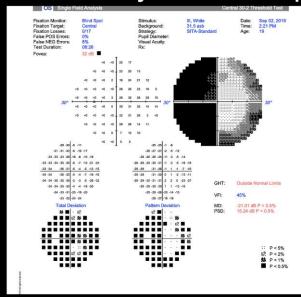
#### Neuro ophthalmology involves

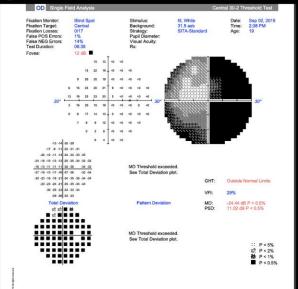
manifestations of Visual field Changes that occur due to the compressive effects of Space Occupying Lesions (Tumours/Blood clots) in the brain as well as Ischemic infarcts along the visual Pathway. The Common Brain Tumours include Pituitary gland tumour, optic nerve tumour and Intracranial tumours. This is recorded by Humphrey Field Analyser (HFA) visual field defects Hemianopia/ Quadrantanopia/ Hemi Altitudinal field loss.

Cranial nerve palsies involve 3rd, 4th, and 6th nerve palsies. This can present as deviation of the eyes. This can occur because of trauma, tumours, diabetes, and inflammation

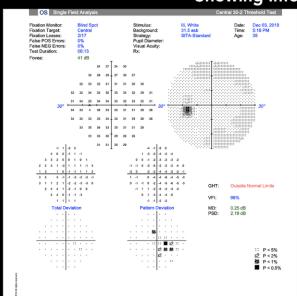


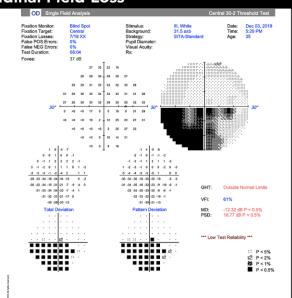
#### Pituitary Gland Tumour producing Bi Temporal Hemianopia

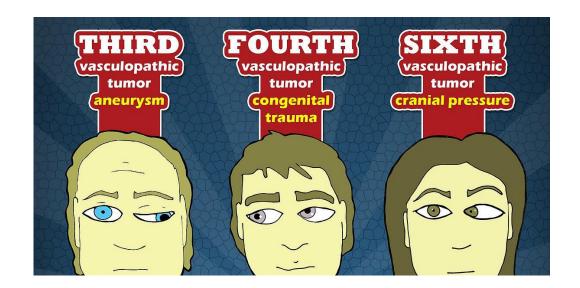




## Optic Nerve Ischemia (Non Arteritic Anterior Ischemic Optic Neuropathy) Showing Inferior Altitudinal Field Loss







## Ocular Trauma





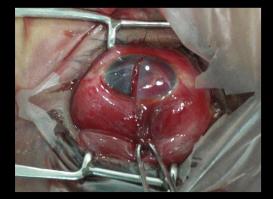
World Health Organization (WHO)

identified the major causes of Road traffic Accidents as driving over the <u>speed limit</u>, <u>driving under the influence of Drugs and Alcohol</u>, not using <u>helmets</u> and <u>seat belts</u>. RTA is commonly seen in two-wheeler collisions and accidental collision of vehicles on By Standers

A Patient brought with head injury undergoes complete ophthalmic examination with emphasis to bedside visual acuity, ocular movements, testing of the pupillary function and fundus examination



A 20 year old boy had a Head on Two Wheeler Collision onto a Bus and sustained a deep mid facial Laceration and optic nerve Injury. Though the Eye Globe was preserved, the patient lost his complete vision in the right eye due to Optic Nerve Injury



Globe Rupture
causing total loss of vision usually has
very poor prognosis



Open Globe Injury (Zone 1)

Cornea and anterior Sclera

**Corneo Scleral Tear** successfully sutured with restoration of Vision





Glass FB in the Eye identified and removed carefully







**Blowout Fracture** of the Left Orbital floor is repaired along with other associated Orbital Fractures with the help of Oro Facio Maxillary Surgeons.



**Blouse Hook Injury** to the Upper Eyelid during Breastfeeding





Occupational Injury Carpenter had a Rechociating Saw Injury causing Lid and Bi Canalicular Injury successfully sutured and Canalicular repair done with Mini-Monoka Stent. This was achieved with the help of Orofacio Maxillary Surgeons



#### Chemical Burn Injury (Alkali)

an Ocular Emergency

- Thorough Irrigation until pH is neutralised
- Early Amniotic Membrane Grafting planned
- Temporary tarsorraphy done if necessary
- Topical Steroids and lubricants therapy





## Artificial Intelligence in Ophthalmology



#### Artificial Intelligence Application for

#### 1. Diabetic Retinopathy

IDX-DR (Most recent 2018)

Google AI/Eye Art AI- Online

Medios Al-Singapore-Offline

Al application in OCT/OCT Angiogram

based indices to detect DR

- 2. Al application in Glaucoma
- 3. Al application in Neuro-ophthalmology (Papilledema)
- 4. Al in Corneal Ectasias (Keratoconus)



## Get in touch with us

#### **Siloam Thomas Eye Hospital**

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> 10:00am - 2:00pm 4:00pm- 8:00pm

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Review us on Google by
Searching for Siloam Thomas Eye Hospital

Be a "Sight Saving Partner" in providing quality eye care for the underprivileged and the poor. Donations to "Siloam Thomas Eye Hospital" are exempted under the 80 G act of Income Tax.