The Operation Eyesight Universal Institute for Eye Cancer

AUGUST – OCTOBER 2017
AIM

Achieve life salvage: So that all may live
Achieve eye salvage: So that all may keep their eyes
Achieve vision salvage: So that all may see
This second quarter of year has been a significant period for the Operation Eyesight Universal Institute for Eye Cancer to improve the global partnerships. The Association for Research in Vision and Ophthalmology at Baltimore in May 2017 gave an opportunity to present our work and also interact with scientists from various parts of the world. The interaction with Sarah Coupland from Liverpool Ocular Oncology Research Group has lead to collaboration in a project on “Chick Embryo in vivo xenograft model for ocular oncology”. This project is being funded by UGC-UKIERI Joint Research programme.

In May 2017, we also had an opportunity to participate in the planning meeting for the retinoblastoma network (RB-NET) program in London. This program is funded by the Queen Elizabeth Diamond Jubilee Trust. In June 2017, we hosted the RB-NET workshop which had participant delegates from seven countries and included ophthalmologists, oncologists, pathologists, nurses, and representatives of Ministry of Health.

In June 2017, we visited the Champalimaud Center for the Unknown in Lisbon, Portugal, again a great opportunity to interact with the scientists at the center. We are currently making joint research proposals to work together in the field of ocular oncology.

Overall, this quarter has been an exciting and a promising quarter for us with establishing new partnerships and strengthening existing ones.

Team

Operation Eyesight Universal Institute for Eye Cancer
Retinoblastoma Network Workshop

Retinoblastoma Network (RB-NET) workshop was hosted by L V Prasad Eye Institute from June 10th to June 12th 2017. RB-NET workshop is funded by Queen Elizabeth Diamond Jubilee Trust and co-ordinated by International Center for Eye Health with a vision to strengthen the retinoblastoma services in East Africa and Indonesia.

The objective of the project is to improve survival of children with retinoblastoma; improve the rates of survival with vision; and improve overall quality of life. Eight countries participated in the workshop including Kenya, Malawi, Uganda, Tanzania, Zimbabwe, Indonesia, UK, and India. There were 70 participants including Ministry of Health representatives from East African countries, Ophthalmologists, Oncologists, Pathologists, and Health care workers. The East African countries and Indonesia will be mentored over the next 2 years by teams from India and UK to improve retinoblastoma care in the respective countries.

Participants at the planning meeting for the Retinoblastoma network workshop at London, 16-17 May 2017.
Retinoblastoma network workshop was hosted by L V Prasad Eye Institute from June 9\textsuperscript{th} - 11\textsuperscript{th} 2017.
Clinicains and scientists from L V Prasad Eye Institute visited the Champalimaud Center for the Unknown (CCU) in Lisbon, Portugal from June 20th to 24th 2017. Discussions were held with three basic research scientists at CCU including Crista Rhiner whose area of interest is in understanding the cell lineage, Bruno Costa-Silva whose area of interest is in identifying extracellular vesicles in liquid biopsies for early detection of metastasis, and Eduardo Moreno whose area of interest is cell fitness in cancer models. Currently we are pursuing a research proposal for bilateral collaborative research. During the visit, we also had an opportunity to meet the Prime Minister of India, Shri Narendra Modi and the Prime Minister of Portugal, Mr Antonio Costa.

In the photograph, from the left are: Mr Joao Botelho, Vice President of the Champalimaud Foundation; Mrs Leonor M Beleza, President of the Champalimaud Foundation; Dr Rajeev Reddy Pappuru, Head – Centre for Vitreo Retinal Diseases, LVPEI; Mr Antonio Costa, Prime Minister of Portugal; Prof D Balasubramanian, Distinguished Scientist, LVPEI; Mr Narendra Modi, Prime Minister of India; Dr Gaurav Agarwal, Researcher at Champalimaud Centre; Dr Swathi Kaliki, Head – Institute for Eye Cancer; LVPEI; Dr Shrikant Bharadwaj, Director – Institute of Optometry and Vision Sciences, LVPEI; Dr S Shivaji, Director of Research, LVPEI; and Ms Radhika Rajan, student at Champalimaud Centre.
Clinic Visits and Surgical Procedures for Patients Across the Network

<table>
<thead>
<tr>
<th>Clinic Visits and Surgical Procedures</th>
<th>April 2017</th>
<th>May 2017</th>
<th>June 2017</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients diagnosed with eye tumours</td>
<td>158</td>
<td>221</td>
<td>164</td>
<td>543</td>
</tr>
<tr>
<td>Eye tumour related surgeries</td>
<td>94</td>
<td>106</td>
<td>99</td>
<td>299</td>
</tr>
<tr>
<td>Examination under anaesthesia</td>
<td>98</td>
<td>89</td>
<td>78</td>
<td>265</td>
</tr>
<tr>
<td>Children received chemotherapy</td>
<td>56</td>
<td>74</td>
<td>67</td>
<td>197</td>
</tr>
<tr>
<td>Ocular prosthesis dispensed</td>
<td>8</td>
<td>13</td>
<td>13</td>
<td>34</td>
</tr>
<tr>
<td>Tumour related pathology specimens studied</td>
<td>260</td>
<td>239</td>
<td>293</td>
<td>792</td>
</tr>
</tbody>
</table>

Total Cases - 543
Patient Profile Details

- Non Paying: 159
- Paying: 384

- Female: 262
- Male: 281

- Below 16: 218
- Above 16: 325
A long journey with conquering cancer and regaining vision

Stitipragyan Barik was brought in to L V Prasad Eye Institute, Bhubaneswar on February 3, 2007 at the tender age of 3 years. She had already lost one eye due to advanced cancer and was receiving treatment at L V Prasad Eye Institute, Hyderabad. The family had gone through tough times over the last 8 months with frequent visits to Hyderabad for continuation of treatment. As the child’s father revealed he had financial constraints and was finding it difficult to get his child the best treatment, we converted her to a non-paying patient. We knew this would enable the child receive the best of care without any charges whatsoever.

The family responded well and made sure Stitipragyan came for all reviews regularly. Between the years 2007 and 2014 the family visited us 16 times and received appropriate treatment when necessary. The visual acuity with correction had improved to 20/100 for distance and N18 for near in the right eye. Left eye had an acceptable cosmesis with customized ocular prosthesis. Over several visits it was noted that she had developed a right tractional retinal detachment that spared the central retina. On April 3, 2014 Stitipragyan presented with a history of sudden drop in vision in the right eye. Her visual acuity had dropped to 20/400 in the right eye. Our retina service examined Stitipragyan and planned surgery to fix her detached retina and this was done on June 3, 2014. Later that year she needed another surgery in the right eye and this was to fix an intraocular lens to facilitate visual rehabilitation.

We last saw Stitipragyan on April 6, 2017 when she came with her father. Her visual acuity was recorded as 20/100 for distance in right eye and N12 for near in right eye. Currently, Stitpragyan is going to school and the happy contented look of her father said it all. We as part of the L V Prasad network were glad to see her again and for what each of us in ocular oncology, retina, pediatric ophthalmology, anesthesia, ophthalmic pathology, visual rehabilitation, ocularistry and support services had done over to help her the past 11 years.
Mrs Amarabati Pal, a 53 years old lady, presented with an elevated hard mass over the right upper eyelid of 6 months duration. The mass was gradually increasing in size. She also complained of bloody discharge from the mass and mild pain for which she consulted locally and was referred to us. She had good vision with glasses and the rest of the eye looked normal. She had no other systemic illness. On closer examination, her right eye showed a nodular, ulcerated lesion mass involving the lateral 2/3 of the upper eyelid. The mass along with a 4mm margin of normal looking healthy eyelid tissue was removed surgically and eyelid reconstruction was done. Further reports suggested it to be a Sebaceous Gland Carcinoma. Two weeks following surgery, the wound had healed well. Now, Mrs Pal has no pain or bleeding and is happy with the outcome and so is her family.
**Publications**


**Presentations**

Swathi Kaliki

Retinoblastoma Network Workshop (June 10th to 12th 2017)

1. How do LVPEI organize retinoblastoma service
2. Enucleation: surgical technique, tips, and tricks
3. Management of extraocular retinoblastoma
4. Discussion of retinoblastoma case scenarios
Posters at ARVO 2017 (May 7th to 11th 2017)

- Presenting author: Retinoblastoma in India: Clinical presentation ans outcome analysis in 1457 patients (2074 eyes)
- Co-author: Chick embryo CAM model of retinoblastoma
- Co-author: American Joint Committee on Cancer (AJCC) Classification of iris melanoma: comparison between 7th and 8th edition based on 432 cases.
- Co-author: American Joint Committee on Cancer (AJCC) Classification 8th edition classification of primary iris melanoma: Outcome analysis in 432 cases

At ARVO 2017. From left to right: Dr Bhavna Chawla, Ocular Oncologist at All India Institute of Medical Sciences, New Delhi; Dr Swathi Kaliki, Ocular Oncologist at L V Prasad Eye Institute, Hyderabad; Dr Helen Dimaras, Ocular Oncologist at The Hospital for Sick Kids, Toronto; Dr Jesse Berry, Ocular Oncologist at USC Eye Institute, Los Angeles; Dr Jasmine Francis, Ocular Oncologist at Memorial Sloan Kettering Cancer Center, New York.
Services Provided at The Operation Eyesight Universal Institute for Eye Cancer

**Special Investigative Diagnostics**
- A and B-scan ultrasonography
- Ultrasound biomicroscopy
- Digital fundus and slit-lamp camera
- Wide-angle fundus photography (RetCam)
- Digital fluorescein angiography, and Indocyanine green angiography
- Optical coherence tomography
- Computed tomography (CT), Magnetic resonance imaging (MRI), Positron emission tomography (PET-CT), Radionucleotide studies (in collaboration)
- Ophthalmic oncopathology with Rapid intraoperative diagnostic facility including frozen section
- Ophthalmic Genetics and Molecular Biology

**Cutting-edge Treatment**
- Integrated multi-speciality approach
- Integrated cancer surgery and cosmetic reconstruction
- Semiconductor diode laser
- Transpupillary thermotherapy
- Photodynamic therapy
- Frequency-doubled Nd:YAG laser photocoagulation
- Cryotherapy
- Bloodless radiofrequency-assisted surgery
- Navigation-guided orbital surgery
- External beam radiotherapy - IMRT, IGRT, Rapid Arc and Stereotactic Radiosurgery (in collaboration)
- Ruthenium 106 plaque brachytherapy
- Systemic chemotherapy for ophthalmic/intraocular tumors
- Intra vitreal chemotherapy
- Intra arterial chemotherapy (in collaboration)
- Neurosurgical, ENT and head and neck oncosurgical support
- Custom made ocular prosthesis

**Education & Training**

**Cutting-edge Eye Cancer Research**
Clinicians

Swathi Kaliki
Head, The Operation Eyesight Universal Institute for Eye Cancer
Faculty, Oncology and Oculoplasty services, Hyderabad

P Vijay Anand Reddy
Medical and Radiation Oncologist
Director, Apollo Cancer Hospital, Hyderabad
Visiting Faculty, L V Prasad Eye Institute, Hyderabad

Mohammad Javed Ali
Faculty, Oculoplasty, Oncology, and Dacryology services, Hyderabad

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Unique Features of ‘The Operation Eyesight Universal Institute for Eye Cancer’:

- An exclusive institute for eye cancer that is one of its kind in the world
- The oncology services at LVPEI can claim to have more than a decade’s experience in offering plaque radiation therapy and treatment to all types of ophthalmic/ocular tumors. We continue to provide this service at ‘The Operation Eyesight Universal Institute for Eye Cancer’
- Entire value chain of services for eye cancer offered under one roof - patient care, research, education and rehabilitation
- Equipped with in-house chemotherapy unit for children
- The first and the only Institute in India to perform Navigation-assisted surgery for complex orbital tumors
- The first and the only Institute in India to offer exclusive ICO three-month fellowship for diagnosis and treatment of retinoblastoma
- Based on the socio-economic criteria, more than 50% patients are offered the same quality treatment entirely free-of-cost

LVPEI
So that all may see

LV Prasad Eye Institute

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Kallam Anji Reddy Campus
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