

End of year report

2016 Project

Helen Keller International

Retinopathy of Prematurity in Mandalay, Myanmar



1. On behalf of HKI, Professor U Than Aung hands over the Diode laser to Mandalay Eye Ear Nose Throat Hospital Medical Superintendent and Professor Daw Yee Yee Aung



Project details

1. Please summarise in a few words the project supported by TFWA Care, including the principle objectives and duration.

Retinopathy of prematurity (ROP), a significant cause of blindness in middle and low income countries, affects immature vasculature in the eyes of low-birth-weight premature babies causing new blood vessel formation (neovascularization), and leads to retinal detachment and irreversible blindness. All preterm babies born before 32 weeks of gestation, weighting less than 1,500g and exposed to the toxicity of supplemental oxygen from the incubator are at risk of ROP. Because retinopathy progresses sequentially, a timely screening and laser treatment within 3 days of birth will reduce the risk of visual loss. Laser surgery not only halts disease progression but also leads to good visual outcome. In industrialized countries, screening and surgery are commonly carried out by pediatric eye-specialists in every neonatal unit.

In 2013, with the support of TFWA CARE, we equipped the Yangon Eye Hospital with a Diode laser used not only in the treatment of ROP but also glaucoma (which is the second leading cause of blindness in Myanmar) and various retina conditions, including retinoblastoma, also known as retina cancer, almost exclusively affecting young children. The laser is in high demand among ophthalmologists, whom HKI trained on its use and maintenance, and provides excellent results.

Mandalay, second largest city in Myanmar, has a neonatal ICU with 10 incubators and has about 100 neonates hospitalized per week. Having heard that the Yangon Eye Hospital received a Diode laser from HKI in 2013 and additional probes and delivery systems to treat ROP in 2015, Mandalay Eye Ear Nose Throat Hospital (MEENT) asked for similar equipment to be able to treat ROP and other retinal conditions.

2. What activities were carried out within the scope of the project over the course of the year?

The Diode laser provided in large part by TFWA to MEENT Hospital has been operational since June 2016. Each week, there are estimated 200 outpatients per day or 1,000 per week and about 15% are glaucoma cases. Currently, only senior eye surgeons are using the Diode laser for 3 to 10 glaucoma cases per week.

On October 30th, 2016, Doctor Howard Cohn, President of HKI and ophthalmologist conducted a training session for younger staff ophthalmologists, so the number of cases treated is expected to increase.

The same Diode laser with a different laser delivery system to treat the retina will be used to treat ROP. The number of cases to be treated is expected to be 5 to 6 per month. The equipment will be ready to function by the end of December 2016.



Evaluation

3. Has the project been successful? Please outline the success factors for each objective as well as the challenges encountered and solutions adopted to overcome them.

The laser is working perfectly to treat advanced glaucoma cases, and has significantly reduced the pain associated with uncontrolled intraocular pressure. Patients and doctors alike are very satisfied with results. We should have number of patients treated and evaluation of results at the one year mark, in July 2017.

For ROP, the current situation is that the premature babies must be examined at the Mandalay Children's Hospital and cannot be transferred to MEENT for treatment since the anaesthesia required for babies can only be done at the Children's Hospital. The ophthalmology team is currently working out the details to take the Diode laser to the Children's Hospital twice a month.

4. Did the work accomplished this year help you learn lessons that will benefit future work?

Since the Mandalay laser system is the second we have supplied to Myanmar, there were no unpleasant surprises. Installation and training sessions went exactly as planned.

Sustainability

5. How has the project had a positive impact on the community/ies at the core of the project and what will be the long term benefits? Please explain if the project has helped empower the beneficiaries by providing greater autonomy.

The Diode laser has definitely had a positive impact on the Mandalay medical community. Cases can now be treated locally instead of being sent to Yangon, hence with greater autonomy and without delay.

The benefits to beneficiaries so far are alleviated pain, preserved vision and control of their glaucoma progression.



6. Will the project continue in the future or is it now complete?

The laser should continue to be in service for many years to come. The hospital should (with some help from HKI) provide consumables and the minimal maintenance required.

Finance

- 7. Please provide a summarised breakdown of how TFWA Care funds were utilised for the project.
- Received €20,000 (11/02/2016)
- Purchase of Iridex Diode Laser, safety glass and carry case: €25,446 (24/02/2016)
- Purchase of Laser Indirect Opththalmoscope: €9,030 (24/02/2016)
- Purchase of 20D and 28D Ophthamic Lens: €834 (24/02/2016)
- Purchase of DioPexy TM Probe: €2,053 (to be ordered in November 2016)

Project co-funded by Femmes d'Europe (Belgian NGO), individual donors and HKI Europe





2. Laser installation by Concordia (HKI's supplier of ophthalmic equipment) engineers



3. Diode laser training group photo





4. Examining a patient before laser treatment





5. Preparing laser parameters





6. Patient after local anaesthesia waiting her turn for laser treatment





7. During surgery





8. Patient and operating team after surgery