Eye camps – the way to reach patients in rural regions of the Himalayas

Rafal Nowak MD

WHILE in the modern world there is discussion about the latest trends in eye surgery, in the developing countries such debates seem to be out of place. Does Aqueous or Neosominx have any future? Is LASIK superior to PRK? Does torsional phaco have more advantages than bimanual? Such questions are important and push medicine forward, however, they are not as pressing in the underserved populations of the Asia Pacific region.

One should never forget about millions of patients for whom the most basic type of cataract surgery would totally change their lives

O ne should never forget about millions of patients for whom the most basic type of cataract surgery would totally change their lives. Many years will pass until the most recent machine-dependent technologies are commonly available in places like Nepal. Nevertheless, the work of an eye surgeon in such countries turns out to be very interesting and is a real challenge. Moreover, the unique solutions such as eye camps as well as the manual SICS technique of cataract removal (the Tilganga method and the Lahan method) deserve the attention of the global ophthalmology community.

Nepal is a small landlocked country located between Tibet and India. The Himalaya Mountains define its northern border. The southern Terai Region is flat, with tropical climate. Nepal is a poor country, but it is rich in scenic splendour and cultural treasures. On the other hand, despite all odds, Nepal has developed a relatively good eye care service system. It is important to notice the significant positive change in the eye care service infrastructure and manpower since 1981 (see table above). All that was possible thanks to an appropriate government health policy and an enormous effort of national (including Nepal Netra Jyoti Sangh) and international non-profit organisations.

Most of the eye hospitals are localised in the urban Terai Region. In the Himalayan region there are very few eye care centres. Due to the specific geographical conditions the hospitals try to reach patients in the remote mountainous areas through outreach programmes – the eye camps. I, myself, had an opportunity to take part in several of them in 2005 and 2006, organised by the Lions Eye Care Centre, Kathmandu.

There are two main kinds of outreach eye care delivery system: screening camps and surgical camps. The first type is held within a short distance (two or three hours drive) from the base hospital. A team of ophthalmic assistants travel to the village where the screening is to be organised. Their task is visual acuity testing, prescribing glasses, treating common eye diseases with topical medicines. Complicated cases and those requiring surgery are referred to the hospital. Sometimes transportation for patients is provided.

Surgical camps are held in remote mountainous areas. It is imperative to say that before each camp, either screening or surgical, a prior appropriate reconnaissance on the spot must be carried out. This includes population evaluation and advertising in collaboration with the local community activists. The whole venture is only successful when these actions are undertaken. The medical team usually consists of several people (10-12), including one or two surgeons, one or two ophthalmic assistants, one or two ophthalmic nurses and others (helpers, volunteers, drivers, a cook). Getting to the actual location is always an adventure. An airplane, jeeps or both are the means of transportation. At times a difficult trek must be undertaken to reach the destination.

Already on the spot a temporary hospital is organised at a pre-arranged building (e.g., a school building). Different rooms play a role including an outpatient department, registration area, an inpatient department, an anaesthesia room, an operating theatre, a postoperative ward and others. Because of frequent problems with electricity, a generator must be available and ready to use all the time.

During a four-day eye camp, the team is able to screen 800-1200 patients and perform 100-400 surgeries. The preferred method of cataract operation is the manual SICS procedure, which is cost effective, machine independent, does not require sutures and gives an excellent outcome, sometimes even comparable with phacoemulsification. Since biometry is usually not available at the camp setting a +22.0 D IOL is used for each patient.

Nepal has one of the best SICS training centres such as Tilganga Eye Centre and Lahan Eye Hospital. Eye surgeons coming from these centres are extremely skilled. As I have already stated, an eye camp is a big challenge for an ophthalmologist. It happens that the surgery must be partially completed under torchlight when the electricity has gone off. Also the management of possible complications is limited. In case of a posterior capsule rupture and vitreous loss, vitrectomy is unavailable.

However, in spite of all the difficulties, there is very little space for improvisation during a camp. All actions are carried out according to special procedures (appropriate sterilisation, disinfection, etc.). Therefore, it is possible to achieve a relatively high-quality outcome and patient satisfaction. On the other hand, not only the procedures but also the commitment of the medical team plays an important role in the final success. From my personal point of view, I have never had so much satisfaction from my work as I had during eye camps in Nepal.