

Visionary Feb 2006 – from the Research Corner

In recent months we've become increasingly aware of the far-reaching effects of our research to improve cornea transplant techniques and outcomes. For several years, Dr. Price and the Cornea Research Foundation have worked to perfect a new cornea-sparing transplant technique that benefits patients because it provides faster visual recovery, reduces complications and leaves the eye stronger and more resistant to injury. During our recent visit to India and Nepal, we've come to appreciate how this technique has the potential to have a huge impact on eye care in the developing world.

In India, 80 corneal specialists from across the country attended Dr. Price's presentation on the new cornea-sparing transplant technique and watched as he performed live surgeries. Dr. Price also taught the new technique to over 40 doctors in Nepal and trained corneal specialists at the Tilganga Eye Center in Kathmandu, where approximately 500 patients come each day to be treated for eye problems.

In developing countries, poor roads and absence of reliable transportation make it difficult for patients in outlying areas to see a doctor for followup after surgery or to get prompt care if they are having a problem. Some have to walk for several days to get to a clinic.

A major advantage of the new cornea-sparing transplant technique we are pioneering is that it has fewer complications and requires fewer follow-up visits compared with a traditional full-thickness transplant. A traditional transplant is held in place with numerous sutures, which can become loose or get infected, causing the transplant to fail. Also corneal ulcers can develop after a traditional transplant because patients lose feeling in the surface of the eye for an extended period of time. In contrast, the new cornea-sparing transplant retains normal corneal sensation and can be done without sutures, minimizing complications that can lead to loss of the eye.

Many people in developing countries have cloudy corneas because they've had cataracts removed using older techniques. In part because of our research efforts, these patients now have a chance to have their vision restored with a cornea-sparing transplant.