



Update: Keratoconus research at the Centre for Eye Research Australia

Corneal Collagen Cross-linking has become increasingly popular in the treatment of progressive keratoconus over the last few years.

Centre for Eye Research Australia (CERA) researchers are conducting three trials at the Royal Victorian Eye and Ear Hospital. This document will provide an update on the original Cross-linking for Keratoconus trial and two pilot studies that commenced in 2007 investigating the effectiveness of the treatment for:

- a) Keratoconus patients with a cornea thinner than 400µm
- b) Patients who have developed Keratectasia post laser surgery. Keratectasia is a condition that has similar symptoms to keratoconus

Researchers are recruiting patients for both pilot studies. See below for more information.

Cross linking for Keratoconus

The original study, started in July 2006, has recently completed recruitment with 100 volunteers participating in the trial. The study is expected to continue for at least another four years: patients who have undergone the procedure will be continuously followed-up and assessed for the long term effects of the treatment; patients who were randomly selected for the control group will be monitored and compassionately treated if further significant progression occurs.

Preliminary results:

The latest interim analysis of the results included patients with up to two years of follow-up.

During the first 3 – 6 months after the procedure, developments were variable, ranging from a mild improvement of their Keratoconus to a temporary worsening of the condition. In patients who completed twelve months or more, the condition was found to have stabilised at its pre-procedure level. Some patient's even experienced a mild flattening of the cone and/or a mild improvement in their visual acuity.

Some patients from the control group have been treated on compassionate grounds due to continuous significant progression of their keratoconus.

The very encouraging early results from the study, as well as from case series published by other research groups, have led to an increase in demand to make Corneal Collagen Cross-Linking available to patients with progressive keratoconus.

Possible options to introduce such a service are currently underway at the Royal Victorian Eye and Ear Hospital and a waiting list is generated for patients interested and eligible for the treatment. Eligibility is assessed following the inclusion criteria of our main study as outlined in the initial FAQ section.



7 July 2009

Keratoconus pilot studies

The results of the 'thin cornea' study appear comparable with the original trial in the short to medium-term; however, as no formal, long term analysis has been performed, a final statement cannot be made on the pilot studies.

Interested in becoming a study participant?

Patients who are interested in participating in the 'thin cornea' pilot study or in being assessed for a placement on the waiting list are advised to contact their eye care specialist or Trial Coordinator Tony Ngo on 03 9929 8618 or via email at tonyn@unimelb.edu.au

Please note that recruitment for the original Cross-linking for Keratoconus trial has been finalised.

Given the encouraging nature of the treatment results, further trials are currently in preparation. Funding is still sought to facilitate the timely completion of the current studies as well as to allow the currently planned studies to take place.