Aussie World First: New Astigmatism Treatment Technique

A leading international journal has recognised the team approach of a Melbourne surgeon and optometrist as pioneers of cutting edge laser eye surgery techniques – especially their work on astigmatism.

The results of laser eye surgeon Dr Noel Alpins and Melbourne optometrist George Stamatelatos' groundbreaking clinical trial on treating astigmatism have been published in the *Journal of Cataract & Refractive Surgery* (*JCRS*), the peer-reviewed *Journal of the American Society of Cataract and Refractive Surgery* and the *European Society of Cataract and Refractive Surgeons*.

Their clinical trial showed that current laser eye surgery techniques can be further improved. By combining Vector Planning with Wavefront–guided laser treatment (the most advanced treatment of nearsightedness, astigmatism and farsightedness), there is a better patient outcome, particularly in dim light and low contrast levels, than eye surgery using Wavefront technology alone.

This suggests that people wearing glasses or contact lenses who have been considered unsuitable for laser eye surgery, may soon be able to access the benefits of this treatment and ultimately gain better vision. In an accompanying editorial, *JCRS* recognises that the technique, which is not yet available to patients, can improve the way astigmatism is treated along with patient outcomes.

"The study shows the already excellent process of laser treatment can be made even more effective. We are extremely pleased with the results achieved," says Dr. Alpins. "Wavefront technology is currently the most advanced in laser technology, but when combined with Vector Planning we found that the patient's treatments were further enhanced."

The study was conducted over 12 months and tested the results of combining the two laser eye surgery techniques; Wavefront technology and Vector Planning. Fourteen people and 21 eyes were involved in the study and patients were treated with a combination of Wavefront and Vector Planning and/or Wavefront alone.

The Vector Planning technique is likely to be taken up by laser eye surgeons once laser manufacturers agree to integrate the technique into current generation laser eye machines.

Of the six patients in the study who had Wavefront treatment in one eye and Wavefront and Vector Planning treatment in the other, two actually changed their preferred eye to the one that received the combined treatment.