Clinical Abstract:
Challenging patient management after refractive surgery

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Vision correction surgery has recorded high success rates in recent decades, improving the quality of life for the majority of the patients. Nevertheless, there is percentage of patients returning to the optometrist's practices for management with spectacles or contact lenses. This work explores the management in four post-surgery cases.

Case 1: A 46-year-old, high myope (male), underwent a successful LASIK surgery in 1999. Three years later, myopia regression was reported, reaching gradually same levels as pre-operative refraction. No corneal ectasia was diagnosed but a continuous increase in ocular axial length was observed. He is currently fitted with custom-made soft and RGP contact lenses and PALs.

Case 2: A 35-year old low myope (male), had LASIK refractive surgery in 2006 which led to post-LASIK ectasia (keratoconus-like) in both eyes. Corneal instability led to keratoplasty (RE) in 2014, while Collagen Cross-Linking treatment was performed in 2010 in his LE to cease further corneal ectasia. He has been fitted with various contact lens designs (Menicon Z-a, Rose K2 PG / IC) which had offered him satisfactory vision.

Case 3: A 63-year old high myope (female), had a bilateral RK surgery in 1990. In 2013, she complained about her near vision due to remaining hyperopia which could not be corrected to satisfactory levels with spectacles. Fitting a (flat BC) soft SiH lens, decreased corneal aberrations and improved best-corrected vision. She is now under monovision correction, free of spectacles use for most of the time.

Case 4: A 33-year old high hypermetrope (male), had a bilateral LASIK surgery in 2008 which led to poor vision and severely increased corneal aberrations and glare. In 2012, he received PTK treatment to "smoothen" the cornea. Since 2013 he is fitted with keratoconic (RoseK2, Menicon) RGP lenses, achieving satisfactory vision.

Fitting contact lenses post-refractive surgery is a challenging but time consuming issue due to the physically changed shape of the cornea and the usual psychological fluctuation of the patient. The use of a software (Easyfit, Menicon) for first lens selection and a wide range of contact lens options (i.e. keratoconic, large diameter, reverse

geometry RGPs of high Dk materials) can significantly reduce chair time and result in a successful management of the post-surgery corneas.