

diameter of the subbasal nerves in keratoconus ($4.11 \pm 0.60 \mu\text{m}$) did not differ from that of the controls ($4.0 \pm 0.61 \mu\text{m}$; $p = .422$).

Conclusions This study provides additional histologic evidence of the involvement of corneal nerves in keratoconus and suggests further that they may play a role in the pathogenesis and progression of the disease.

OP-7 A COMPARISON OF KERATOCONUS PROGRESSION FOLLOWING COLLAGEN CROSS-LINKAGE USING STANDARD OR PERSONALISED KERATOMETRY THRESHOLDS

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Objective To define if keratoconus progression estimates following collagen cross-linkage (CXL) vary according to the parameter used to identify changes in corneal shape.

Methods We estimated progression following CXL in 1,677 eyes. We compared standard definitions of keratoconus progression based on published thresholds for Kmax, front K2, or back K2, or progression of any two of these three parameters, with the option of an increased threshold for Kmax values $\geq 55\text{D}$. We excluded pachymetry from the analysis as this reduces unpredictably after CXL. We repeated the analysis using novel adaptive estimates of progression for Kmax, front K2, or back K2, developed separately from 6,463 paired readings from keratoconus eyes, with a variation of Bland-Altman to determine the 95% regression-based limits of agreement (LoA). We created Kaplan-Meier survival plots for standard and adaptive thresholds. The primary outcome was keratoconus progression five years after a reference visit 9–15 months following CXL.

Results Rates of progression were 8% with a standard ($\geq 1.5\text{D}$) threshold for K2, or 6% with the static multi-parameter definition. With a $\geq 1\text{D}$ threshold for Kmax, the progression was significantly higher at 29%. With adaptive Kmax or K2 measurements the progression rates were similar (20%), but less than with the adaptive multi-parameter method (22%).

Conclusions Estimates of progression following CXL vary widely according to the reference criteria. Using new adaptive thresholds to define the repeatability of keratometry (LoA) gives estimates for progression markedly higher than the standard multi parameter keratometry method.

OP-8 FEMTOSECOND LASER ASSISTED WEDGE RESECTION FOR PELLUCID MARGINAL DEGENERATION

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Aims To utilise the femtosecond laser to enable safe and quick wedge resection surgery for contact lens-intolerant pellucid marginal degeneration.

Methods The results of the first 3 patients will be presented with before and after photos, pentacams and refractions.

Results Corneal tomography, refraction and visual acuity improved with the procedure.

Conclusion Femtosecond laser is a useful tool to improve the safety and precision of wedge resection in pellucid marginal degeneration.

OP-9 SURGICAL MANAGEMENT OF LATE COMPLICATIONS IN OSTEO-ODONTO-KERATOPROSTHESIS (OOKP). THE ROLE AND CHALLENGES OF THE MULTIDISCIPLINARY TEAM AT MOORFIELDS EYE HOSPITAL

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Purpose To present our experience in the surgical management of late complications in Osteo-Odonto-Keratoprosthesis (OOKP) following transfer of this highly specialised Service to Moorfields Eye Hospital.

Method During the first year following transfer of the OOKP Service, five surgical interventions in four patients were performed by a multidisciplinary team treating unique complications. A total of three retinal detachments repairing procedures were performed by endoscopic vitreo-retinal approach. One patient presented severe chronic cystoid macular oedema and required fornix and buccal mucosa dissection to allow periocular injection of triamcinolone. One patient affected by LOGIC syndrome presented with aqueous leak, hypotony and significant vision deterioration in his only OOKP eye and underwent urgent osteo-dental lamina repair.

Results In one patient endoscopic surgical repair was not successful in restoring vision because of advanced tractional retinal detachment following endophthalmitis managed elsewhere. Another patient with retinal detachment regained sight in his only eye but required repeat endoscopic VR surgery. One patient with cystoid macular oedema improved his vision in his only eye following periocular injection of triamcinolone. One patient with LOGIC syndrome underwent surgical re-suturing and repairing of his thin osteo-dental lamina which resolved the aqueous leak and this patient recover his previous 6/6 vision.

Conclusions The OOKP is a highly specialised service and these unique complications require a multidisciplinary team. Moorfields Eye Hospital is now the National Referral Centre for OOKP and the multidisciplinary team is committed to introduce innovations aiming to improve the surgical techniques.

OP-10 THE RATIONALE FOR THE USE OF MICROBIAL KERATITIS DRUG DELIVERY PROTOCOLS

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Introduction Currently there is only one evidence based and published microbial keratitis protocol, the TST (Topical, Systemic, and Targeted Therapy) protocol, which is for use for use in fungal keratitis. Treatment guidelines, without