

male, 25 female; median age 42 years (range 8–95)). Most reported subjectively reduced VA, frequently associated with photophobia (89.2%). Clinical findings included bilateral involvement (67.6%), with conjunctival injection (97.3%), corneal staining (97.3%), and corneal oedema (27%).

Following diagnosis, most patients received topical lubricants (86.5%), topical antibiotics (73%) and topical steroids (64.9%). Mean visual acuity improvement in affected eyes was 15.8 EDTRS letters by first follow-up appointment (average 7.3 days (range 2–34)). No geographic clustering was identified on postcode analysis.

Conclusions We report the first large case-series of patients with eczema experiencing novel ocular surface toxicity, related to periocular Epimax application following changing formulary recommendations. These mild ocular chemical injuries resolved with cessation of use and topical lubricants and steroids. Dermatology patients should be strongly advised to avoid periocular application of Epimax, and primary care physicians, ophthalmologists and dermatologists made aware of this potential complication.

P-10 WHY IS THE CORNEA OFTEN MUCH THINNER THAN EXPECTED AFTER DMEK? A RETROSPECTIVE REVIEW AND DISCUSSION OF THE CLINICAL IMPLICATIONS

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Introduction DMEK is effective in surgically treating endothelial dysfunction, with visual improvement following oedema resolution. It has been our observation that postoperative DMEK corneas are often much thinner than anticipated. We wished to review our recent cases and discuss potential explanations and implications.

Methods Retrospective case-note review of 50 consecutive DMEK patients, including demographics and serial ultrasound central corneal thickness (CCT) measurements.

Results 63 eyes (33 combined phaco/DMEK; 30 DMEK alone) from 50 patients were identified (29 male, 21 female; median age 75 (34–87)). 87.3% (55/63) had Fuchs' endothelial corneal dystrophy. Mean preoperative CCT was 680 µm (median 663 µm, range 582–934 µm), significantly reduced at 3 months postoperatively by 23.4% (520 µm; median 522 µm; 404–611 µm) and maintained by 6 months (22.6% reduction). Mean CCT was significantly lower than expected (523 µm vs 540 µm; $p < 0.001$ (one sided t-test)), with 61.9% under 540 µm and 31.7% less than 500 µm. No association was found between 3-month CCT and donor endothelial cell count (median 2600 cells/mm² (2200–3600); $p = 0.29$), or median donor age (71 years (49–88); $p = 0.22$). 15.9% (10/63) of eyes required topical ocular hypotensives at 6 months.

Conclusion Approximately one-third of our cases resulted in sub-500 µm corneal thickness following DMEK. This phenomenon is not explainable solely due to a normalisation of anatomy (new functioning Descemet's membrane/endothelial pump, corneal dehydration and epithelial re-modelling), but likely related to stromal atrophy and keratocyte death. While further research is required to confirm these findings, this awareness

has clinical implications for IOP measurements and subsequent glaucoma management in DMEK patients.

P-11 DMEK IN CASES WITH APHAKIA & ANIRIDIA. THREE-YEAR EXPERIENCE WITH THE SAFETY NET TECHNIQUE

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Objective To present the results of an innovative DMEK technique for bullous keratopathy in cases with aphakia & aniridia, traditionally considered suitable only for DSAEK.

Method Review of 11 consecutive cases affected with aphakia & aniridia who received DMEK using the safety net technique over the last three years. Patients were followed between 6 to 30 months.

Results Graft unfolding over the prolene net was found undemanding and was successfully achieved in all cases. Visual acuity improved in 10 cases (91%). Nine cases (82%) had clear cornea and well-functioning DMEK at the end of the study. In one case the surgery was not completed due to choroidal haemorrhage and in one case the graft failed after one year following rejection and repeat PK was performed. One case required re-do DMEK due to early failure. Re-bubbling was required for 4 cases (36%) and there were no cases with posterior graft dislocation.

Conclusions The safety net DMEK technique is a simple, low-cost method for DMEK in eyes with aphakia & aniridia. Increased re-bubbling rate is expected in the aphakic unicameral eyes.

P-12 NECROTISING BLEPHAROCONJUNCTIVITIS AND KERATITIS IN HUMAN MONKEYPOX

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Importance Ophthalmic manifestations occur in less than 5% of cases in human monkeypox, most commonly presenting with self-limiting conjunctivitis and keratitis. We herein present a case of severe ophthalmic complication.

Objective To present a case of human monkeypox with sight threatening necrotising blepharoconjunctivitis.

Method This is a report of a patient who developed necrotising conjunctivitis due to monkeypox at a large University hospital.

Main Outcome and Measures Description of the progression and clinical evaluation of the ocular condition and the management.

Results A 63-year-old male HIV positive presented initially with conjunctivitis and eyelid swelling and developed skin lesions from monkeypox virus two days later. Despite remaining stable systemically, after four days his ophthalmic condition evolves to necrotising blepharoconjunctivitis for which systemic antiviral treatment with tecovirimat was given along with topical trifluoridine 1% eye drops. In addition, he

required repeated tissue debridement with amniotic membrane grafting to preserve the eye integrity.

Conclusions The severity of our observation was associated with a co-existing immunocompromised state and appeared similar to findings associated with other orthopoxviruses. Ophthalmic manifestations could be the initial presentation of human monkeypox and could also be severe. Early recognition and intervention may limit the likelihood of substantial ocular morbidity.

P-13 TOPICAL INSULIN EYE DROPS IN INFECTIVE KERATITIS

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Introduction Topical insulin eye drops have been shown to promote corneal epithelium healing in case of persistent epithelial defect (ED), especially in neurotrophic cases. The use of insulin eye drops in other infectious keratitis is limited in the literature. The aim was to evaluate whether insulin eye drops may be useful in case of ED in infective keratitis.

Methods 5 patients with culture proven infective keratitis and ED were recruited. The infections were: HSV-1 (n=1), *Pseudomonas aeruginosa* (n=2), *Acanthamoeba* (n=1) and *Stenotrophomonas maltophilia* (n=1). Each patient was commenced on daily topical insulin at a concentration of 1 units/ml (Humulin S in lubricant eye drops), 1 drop four times a day for 30 days. Evaluation of the ED was performed at slit-lamp, measuring the horizontal and vertical margins of the ED, at baseline, and week 1,2,3 and 4. Resolved ED was defined as no fluorescein staining present at follow-up.

Results Complete healing of the ED occurred only in the case of previous HSV-1 keratitis. The patient was noted to not be using any other topical treatments other than insulin eye drops. In the other 4 cases, the ED was still present at week 4, albeit reduced to 80% of the original size. We observed that in these 4 cases, the patients were still using topical steroids and/or topical antibiotics and/or topical polyhexanide.

Conclusion Insulin eye drops may be helpful in cases of post-infective keratitis ED and non-concomitant use of any other drops, which may interfere or cause epithelial toxicity.

P-14 FACTORS ASSOCIATED WITH THE DISPARITY BETWEEN MANIFEST REFRACTIVE CYLINDER AND KERATOMETRIC ASTIGMATISM IN KERATOCONIC EYES

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Objective To investigate the factors associated with the disparity between manifest refractive cylinder (MRC) and

keratometric astigmatism (KA) in keratoconic eyes to refine the refractive outcomes of toric intraocular lenses in keratoconic cataract surgery.

Methods A retrospective study at Southend University Hospital assessing 145 keratoconic eyes from 75 patients (57 male, 18 female, mean age 27±8.6 years), and comatic aberration of >0.3 µm (defined with Pentacam HR (Oculus, Germany) at a diameter of 6 mm). MRC power was correlated to corneal tomographic variables including higher order aberrations measured using univariate and multivariate regression analysis. Vector difference between KA and MRC was also explored, to detect tomographic variables associated with this disparity. Axis of MRC was compared and correlated to the axis of corneal coma.

Results Both KA and coma showed a significant correlation with the MRC power. The vector difference between KA and MRC is correlated to the KA, posterior keratometric astigmatism and comatic aberration. MRC axis had significant correlation to the axis of coma, with an inverse relationship between MRC axis and coma axis.

Conclusion Corneal comatic aberration is a significant determinant factor of manifest refractive cylinder power and axis and is correlated with the disparity between manifest and keratometric astigmatism found in keratoconic eyes. The effect of higher order aberrations, particularly vertical coma should be considered when planning intraocular procedures for visual rehabilitation.

P-15 DESCemet's MEMBRANE ENDOTHELIAL KERATOPLASTY WITHOUT PERIPHERAL IRIDOTOMY: OUTCOMES AND SAFETY PROFILE (CATEGORY: RESEARCH)

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Objective Pupil block with raised intraocular pressure (IOP) is a serious complication of Descemet's membrane endothelial keratoplasty (DMEK). To reduce the risk of pupil block, many surgeons perform a peripheral iridotomy (PI) before or during the procedure, which itself carries a risk of complications. This study demonstrates the outcomes of a method which does not require a PI.

Methods Retrospective, single centre study of DMEK performed under two surgeons. A PI is not made either before or during the surgery as part of their standard technique. Gas is released post-procedure as required in order to avoid iatrogenic pupil block.

Results Fifty-seven consecutive cases of DMEK between January 2018 to August 2021 were included. Fourteen of these cases were combined with phacoemulsification. There were no cases of raised IOP secondary to pupil block in the postoperative period. Three cases of raised IOP were attributable to a history of glaucoma and steroid response. At one year, there was a mean improvement in best-corrected visual acuity (BCVA) of LogMAR 0.44, from a baseline of LogMAR 0.66. The rebubbling rate was 30%, including partial and complete detachments. There was one case of primary graft failure.

Conclusion DMEK without a PI is a safe and effective alternative technique when combined with gas bubble management in the immediate postoperative period. Avoiding the need for