

algorithms. Preoperative stromal hyperreflectivity was associated with lower visual acuity recovery after DMEK surgery. Tools to identify stromal hyperreflectivity corresponding to clinical stromal scarring can help clinicians in stratifying candidate patients for DMEK and gauging the expected visual acuity recovery rate.

OP-4 CHARACTERISING MIRVETUXIMAB-INDUCED OCULAR SURFACE DISEASE

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Background Mirvetuximab soravtansine (MIRV) is the first antibody-drug conjugate targeting folate receptor alpha recently approved for use in advanced platinum-resistant ovarian, fallopian tube or primary peritoneal cancer and is rapidly gaining popularity. This study aims to report the clinical features, treatment strategies and outcomes of MIRV-induced ocular surface disease.

Methods Ten patients were included from Aug 2017 - October 2023. Ocular symptom assessment and comprehensive ophthalmic examination, including slit lamp biomicroscopy, anterior segment optical coherence tomography (AS-OCT), and confocal microscopy were performed.

Results All patients were female treated for advanced ovarian cancer (mean age 66.7 ± 5 years). Seven (70%) had grade 1–2 superficial punctate keratopathy. Five (50%) developed bilateral mid-peripheral microcystic subepithelial opacities, two of which progressed to involve the central cornea. AS-OCT confirmed the corneal opacities were limited at the subepithelial layer. Confocal microscopy demonstrated a rosette pattern for these subepithelial opacities. Two required MIRV dosage reduction due to ocular adverse events. No discontinuation of MIRV was necessary. Ocular surface and corneal changes resolved with recovery to baseline best corrected visual acuity for all patients.

Conclusion Dry eyes and microcystic subepithelial changes were the commonest MIRV-induced ocular adverse events but these were transient and reversible. We hypothesise the insult and centripetal migration of transient amplifying cells (TACs) to be responsible for the pathogenesis but further investigation is required. Prophylactic use of topical corticosteroid which delays TACs migration is recommended for all patients starting on MIRV. MIRV dosage reduction for patients with more severe ocular surface disease resulted in good resolution of symptoms.

OP-5 INCREASED INCIDENCE OF ADULT GONOCOCCAL KERATOCONJUNCTIVITIS AT TWO TERTIARY EYE HOSPITALS IN WESTERN EUROPE: CLINICAL FEATURES, COMPLICATIONS AND ANTIMICROBIAL SUSCEPTIBILITY

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Introduction Gonorrhoea is on the rise. Between 2021 and 2022, sexual health services saw a 50% and a 33% increase

in diagnoses respectively in England and The Netherlands. A concurrent rise in gonococcal keratoconjunctivitis (GKC) is a serious concern due to the potentially devastating visual complications, yet there is limited national epidemiology on GKC, including on antimicrobial susceptibility. This increase coincides with a major public health concern; *N. gonorrhoeae* is evolving high levels of antimicrobial resistance, including to ceftriaxone, the last available option for empirical therapy.

Method A descriptive, retrospective case series was conducted in two tertiary referral centres; Moorfields Eye Hospital, London, UK and Rotterdam Eye Hospital, Rotterdam, The Netherlands between 2017 and 2023.

Results There was simultaneously increased incidence of adult GKC in both centres, with 11 cases confirmed in the first seven months of 2023, compared to ≤ 3 per year in 2017–2022. The clinical features, ocular complications and antimicrobial susceptibilities are reported.

Conclusions There was a notable increase in the incidence of GKC cases in our centres in 2023, which may indicate a rise across Western Europe. Emergency departments need a heightened awareness to identify and treat cases at first presentation, even in individuals without identifiable risk factors. Nationwide studies of the incidence, clinical features, risk factors, management, complications and antimicrobial resistance of adult patients with GKC have been proposed in both countries for 2024. In the UK this will be facilitated by the British Ophthalmological Surveillance Unit (BOSU) in association with the UK Health Security Agency.

OP-6 THE INVOLVEMENT OF CORNEAL NERVES IN THE PATHOGENESIS OF KERATOCONUS

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Purpose To study the morphologic characteristics of corneal nerves in patients with advanced keratoconus using the acetylcholinesterase technique in corneal whole mounts.

Design Prospective, observational case series.

Methods Fourteen corneal buttons from 14 keratoconic patients (9 males and 5 females; mean age, 34.3 years) who had undergone keratoplasty for advanced keratoconus and 6 corneal buttons from 6 normal corneas were included. Whole mounts were stained for acetylcholinesterase and were scanned with a novel Nanozoomer digital pathology scanning microscope.

Results Seventy-one percent of keratoconic corneas demonstrated central stromal nerve changes, which included thickening, tortuosity, nerve spouting, and overgrowth. The nerve changes ranged from early to extensive and could be separated into 3 different grades. The central stromal nerves were abnormally thicker ($18.9 \pm 14.7 \mu\text{m}$) than in controls ($8.11 \pm 3.31 \mu\text{m}$; $p < .001$). The thickness of peripheral stromal nerves ($12.6 \pm 3.1 \mu\text{m}$) was similar to that of controls ($14.86 \pm 5.60 \mu\text{m}$; $p = .072$). Subbasal nerves showed changes in the form of loss of radial orientation and increased tortuosity, especially at the cone apex. At the cone base, a concentric arrangement of subbasal nerves was found in 43% of cases. Localized thickenings of subbasal nerves also were observed at their origin from the bulbous terminations of sub-Bowman nerves. The terminal bulbs, too, were enlarged. The mean