

THE CLINICAL USE OF TOPICAL HYPERTONIC SALINE EYE DROPS IN A TERTIARY REFERRAL EYE CARE CENTRE IN SYDNEY, AUSTRALIA

Purpose. Hypertonic saline 5% eye drops may be prescribed for corneal oedema, however they are expensive, not routinely available and have little human data supporting their efficacy. The aim of study was to determine indications for and outcomes of hypertonic saline eye drops at the Sydney Eye Hospital.

Methods. A retrospective case series was conducted. The pharmacy database was interrogated for patients receiving hypertonic eye drops 5% from January 2011 to December 2016. Data collated from case notes included patient demographics, ocular and medical history, indication and dosage of hypertonic saline, clinical signs/symptoms at baseline and final visit (last recorded or pre-transplantation appointment) and concurrent medications. Pearson's coefficient was used to correlate variables.

Results. 182 eyes from 150 patients were included, mean age was 68 years (range 12 to 98) and 84 were male. The indications for hypertonic saline included corneal oedema (n =162 eyes, 89%), corneal hydrops (n=10, 5%) and corneal ulcer (n=2, 1%). Duration of treatment averaged 601 days (range 2 to 6026). 58 eyes (32%) underwent corneal transplantation (49 DSEK, 9 PK). Of the 124 eyes not having corneal transplants, baseline visual acuity (0.76

0.77 logMAR) was not significantly different to that post-treatment (0.83 0.71, p=0.278). Increasing duration (-0.117, p