

Use of Rebamipide in Dry-Eye Patients Post-Corneal Refractive Surgery

To assess intraocular scattering changes before and after use of rebamipide ophthalmic suspension in dry-eye patients after corneal refractive surgery, researchers studied 60 eyes of 30 dry-eye patients undergoing corneal refractive surgery.

Patients were randomly assigned to start topical administration of rebamipide ophthalmic suspension or artificial tears (control group) four times daily for four weeks. Tear secretion, tear breakup time (TBUT) and fluorescein score were measured before/after treatment. Intraocular light scattering was also measured as the objective scattering index (OSI) at 0.5-second intervals over 10 seconds.

The following significant improvements were observed in the rebamipide group: Schirmer I test (11.4 ± 9.0 mm to 14.9 ± 7.4 mm); TBUT (2.2 ± 0.7 seconds to 4.5 ± 1.7 seconds); and fluorescein (4.3 ± 1.3 to 1.9 ± 1.0): $p=0.006$, $p<0.001$, $p<0.001$, respectively (Wilcoxon signed rank test). Significant improvements were also seen in OSI **at 5 to 10** seconds after blinking (5–8 seconds, $p=0.01$; 9 seconds, $p=0.02$; 10 seconds, $p<0.001$). Significant improvements were also found in mean OSI (from 2.73 ± 1.52 to 2.19 ± 1.19), OSI change rate (from 74.7 ± 69.5 percent to 28.6 ± 48.7 percent) and OSI slope of the linear regression line improved significantly (from 0.10 ± 0.12 to 0.04 ± 0.08): respectively $p=0.02$, 0.003 and 0.03.

Rebamipide ophthalmic suspension was shown to be effective for improving ocular surface parameters and optical quality in dry-eye subjects undergoing corneal refractive surgery.

SOURCE: Igarashi A, Kamiya K, Kobashi H. Effect of Rebamipide Ophthalmic Suspension on Intraocular Light Scattering for Dry Eye After Corneal Refractive Surgery. *Cornea*. 2015 Aug;34(8):895-900.