

Water-free cyclosporine eye drop, 0.1 percent, effective for dry eye

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A water-free cyclosporine solution is effective for treating moderate-to-

severe dry eye disease (DED), according to a study published online April 6 in *JAMA Ophthalmology*.

Esen K. Akpek, M.D., from Johns Hopkins University in Baltimore, and colleagues evaluated whether water-free cyclosporine eye drop, 0.1 percent, is effective in treating DED. The analysis included 834 study participants randomly assigned to twice-daily cyclosporine solution or vehicle for 29 days.

The researchers found that participants treated with cyclosporine solution had greater improvement in total corneal fluorescein staining (tCFS) than the vehicle group (-4.0 versus -3.6 grades) at day 29 (change $[\Delta]$, -0.4 ; 95 percent confidence interval [CI], -0.8 to 0 ; $P = 0.03$). Treatment benefits in the dryness score from baseline were seen in both groups: -12.2 points for cyclosporine and -13.6 points for vehicle ($\Delta = 1.4$; 95 percent CI, -1.8 to 4.6 ; $P = 0.38$). Clinically meaningful reductions of three grades or higher in tCFS were achieved by 71.6 percent in the [cyclosporine](#) group versus 59.7 percent in the vehicle group ($\Delta = 12.6$ percent; 95 percent CI, 6.0 to 19.3 percent; P blurred vision ($\Delta = -3.5$; 95 percent CI, -6.6 to -4.0 ; $P = 0.03$).

"The rapid onset and magnitude of improvements on the corneal epithelial damage are potential differentiators to existing therapies," the authors write.

Several authors disclosed ties to Novaliq, which funded the study.

More information: Esen K. Akpek et al, Efficacy and Safety of a Water-Free Topical Cyclosporine, 0.1%, Solution for the Treatment of Moderate to Severe Dry Eye Disease, *JAMA Ophthalmology* (2023).

[DOI: 10.1001/jamaophthalmol.2023.0709](https://doi.org/10.1001/jamaophthalmol.2023.0709)

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