

1-2020

The Efficacy and Safety Profile of Netarsudil 0.02% in Glaucoma Treatment: Real-World Outcomes

Eric Shiuey, MS

Thomas Jefferson University, eric.shiuey@jefferson.edu

Melih Ustaoglu, MD

Carina Sanvicente, MD

Reza Razeghinejad, MD

Thomas Jefferson University, mohammadreza.razeghinejad@jefferson.edu

L. Jay Katz, MD

*See next page for additional authors*Follow this and additional works at: https://jdc.jefferson.edu/si_ctr_2022_phase1Part of the [Ophthalmology Commons](#), and the [Translational Medical Research Commons](#)**[Let us know how access to this document benefits you](#)**

Recommended Citation

Shiuey, MS, Eric; Ustaoglu, MD, Melih; Sanvicente, MD, Carina; Razeghinejad, MD, Reza; Katz, MD, L. Jay; Myers, MD, Jonathan; and Lee, MD, Daniel, "The Efficacy and Safety Profile of Netarsudil 0.02% in Glaucoma Treatment: Real-World Outcomes" (2020). *Phase 1*. Paper 16.

https://jdc.jefferson.edu/si_ctr_2022_phase1/16

This Article is brought to you for free and open access by the Jefferson Digital Commons. The Jefferson Digital Commons is a service of Thomas Jefferson University's [Center for Teaching and Learning \(CTL\)](#). The Commons is a showcase for Jefferson books and journals, peer-reviewed scholarly publications, unique historical collections from the University archives, and teaching tools. The Jefferson Digital Commons allows researchers and interested readers anywhere in the world to learn about and keep up to date with Jefferson scholarship. This article has been accepted for inclusion in Phase 1 by an authorized administrator of the Jefferson Digital Commons. For more information, please contact: JeffersonDigitalCommons@jefferson.edu.

Authors

Eric Shiuey, MS; Melih Ustaoglu, MD; Carina Sanvicente, MD; Reza Razeghinejad, MD; L. Jay Katz, MD; Jonathan Myers, MD; and Daniel Lee, MD

SI/CTR Abstract

Word count: 242/250 words

The Efficacy and Safety Profile of Netarsudil 0.02% in Glaucoma Treatment: Real-World Outcomes

Eric Shiuey, MS; Melih Ustaoglu, MD; Carina Sanvicente, MD; M. Reza Razeghinejad, MD; L. Jay Katz, MD; Jonathan Myers, MD; Daniel Lee, MD*

(*) indicates primary project advisor

Introduction: More effective glaucoma medications are necessary as medication intolerance and non-adherence remain problematic. Netarsudil is a newly FDA-approved Rho kinase inhibitor. We hypothesize that netarsudil will safely reduce intraocular pressure (IOP) compared to baseline even while other glaucoma medications are used.

Methods: This retrospective observational study was conducted on glaucoma patients seen at the Wills Eye Hospital Glaucoma Service who received netarsudil 0.02% between March and September of 2018. Intraocular pressure (IOP, via Goldmann applanation tonometry) and best corrected visual acuity (BCVA, via Snellen visual acuity charts) comparisons between baseline and 1- and 3-month follow-up visits were performed using Student's t-tests.

Results: This study included 172 eyes of 108 patients. Compared to baseline, a mean \pm SD decrease in IOP of 3.67 \pm 4.91 and 3.91 \pm 4.83 mmHg was noted at 1- and 3-month follow-up visits, respectively (both $p < 0.001$). No statistically significant difference in IOP change between patients on ≥ 3 and < 3 glaucoma medications at month 1 was observed ($p = 0.667$). Conjunctival hyperemia was the most common side effect at

months 1 and 3 (15.7% and 23.0% of patients, respectively). Blurred vision was reported at 1- and 3-month follow-up (5.8% and 8.0% of patients, respectively), but no significant difference in BCVA was observed ($p= 0.723$ and 0.611 , respectively).

Discussion: With a mild side effect profile, netarsudil yielded a significant IOP reduction in glaucoma patients, including significant reductions in patients on ≥ 3 medications. Given its efficacy and unique mechanism of action, earlier-line use of netarsudil may be considered.