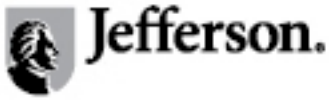

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The Efficacy and Safety Profile of Netarsudil 0.02% in Glaucoma Treatment: Real-World Outcomes

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SI/CTR Abstract

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

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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±SD decrease in IOP of 3.67±4.91 and 3.91±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.