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ORIGINAL RESEARCH

Efficacy of Netarsudil in Open and Closed Angle Glaucomas Within the Vietnamese Population: A Single-Center, Retrospective Study

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Purpose: To compare the intraocular pressure (IOP)–lowering efficacy and safety of netarsudil, a Rho-associated kinase (ROCK) inhibitor, among eyes with open-angle glaucoma (OAG), combined-mechanism glaucoma (CMG), and angle-closure glaucoma (ACG) in a predominantly Vietnamese population.

Patients and Methods: A retrospective chart review was performed of eyes diagnosed with OAG, CMG, or ACG and treated with netarsudil (Rhopressa or Rocklatan) between 2018 and 2024 at a single glaucoma specialty clinic in San Jose, California. Baseline demographics, IOP, visual acuity, and cup-to-disc ratio were collected. The primary outcome was mean IOP reduction at 6 months. Secondary outcomes included discontinuation due to adverse effects and uncontrolled IOP requiring additional therapy or surgery. IOP values were adjusted using an estimated value for medication changes following ROCK inhibitor initiation. Mixed-effects linear regression and parametric survival models were used, adjusting for baseline covariates and IOP.

Results: A total of 235 eyes were included: 116 with OAG, 66 with CMG, and 53 with ACG. The mean patient age was 74.9 ± 9.4 years, with 90% identifying as Vietnamese. Mean IOP reduction at 6 months was similar across groups (OAG: 4.2 ± 3.9 mmHg; CMG: 3.4 ± 4.1 mmHg; ACG: 4.3 ± 5.0 mmHg; p>0.05). After adjustment for baseline IOP and covariates, no statistically significant differences were found. Discontinuation due to adverse effects occurred in 16% of OAG, 14% of CMG, and 8% of ACG eyes (p>0.05), with conjunctival hyperemia most common. Rates of uncontrolled IOP were also similar among groups (p>0.05).

Conclusion: Netarsudil and its combination therapies demonstrated no significant difference in IOP reduction and tolerability across OAG, CMG, and ACG. These findings support its use as an adjunctive therapy regardless of angle configuration and highlight the need for prospective studies in Asian populations.

Keywords: ROCK inhibitor, intraocular pressure, open-angle glaucoma, angle-closure glaucoma, combined-mechanism glaucoma

Introduction

Glaucoma is one of the leading causes of blindness worldwide.[1] Although there are multiple pathogenic mechanisms and many subsets of glaucoma, intraocular pressure (IOP) is a universal risk factor of glaucomatous optic neuropathy and visual deficits.[2] There are no current treatments to reverse the adverse effects of glaucoma; however, treatments that reduce IOP have been the primary method to prevent or slow further glaucoma progression.[3]

Angle-closure glaucoma (ACG) is a type of glaucoma where an appositional anterior chamber angle inhibits aqueous humor outflow and thereby increases IOP.[4] This is commonly caused by anterior displacement of the iris, mechanically blocking access to the trabecular meshwork. As compared to ACG, open-angle glaucoma (OAG) presents with an open angle that has visible access to the trabecular meshwork on gonioscopic examination. Increased IOP is due to increased

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resistance in the trabecular meshwork, reducing aqueous outflow.[5] Combined-mechanism glaucoma (CMG) has features of both ACG and OAG, and it is diagnosed by the continued presence of glaucoma even after procedures to open the angle (eg. peripheral iridotomy). Anatomical differences and interactions between the mechanisms justify it as a distinct glaucoma type[6.] In addition, histological studies support that pathological damage to the trabecular meshwork can result from intermittent iris contact, even in the absence of frank peripheral anterior synechiae, which may lead to persistent glaucoma after iridotomy.[7]

Rho-associated kinase (ROCK) is a kinase involved in the regulation of the shape and movement of cells by promoting myosin light chain (MLC) contractions and actin fiber assembly.[8,9] ROCK exhibits this effect by phosphorylating myosin light chain phosphatase (MLCP), deactivating it and preventing it from dephosphorylating MLC. Phosphorylated MLC forms actomyosin fibers and induces contractions. In the eye, ROCK primarily contracts the trabecular meshwork and increases episcleral venous tone to increase resistance and reduce aqueous humor outflow, thus increasing IOP.[8,9]

ROCK inhibitors are a new class of glaucoma drugs with netarsudil (Rhopressa, Alcon, Inc., Fort Worth, TX) being the first to be FDA-approved in the United States in 2017.[10] Rocklatan, FDA-approved in 2019, is a fixed-dose combination that contains both netarsudil and latanoprost, a combination more effective than netarsudil or latanoprost monotherapy.[11] Since their introduction, studies have shown that ROCK inhibitors are successful at managing and reducing IOP in the treatment of glaucoma by decreasing trabecular outflow resistance as well as by reducing episcleral venous pressure.[12,13]

Because the primary mechanism is through increasing trabecular outflow which may be limited by the physical closure of the angle and microstructural damage to the meshwork in ACG, the drug is not FDA-approved for use in ACG. However, it may have potential efficacy. Netarsudil also lowers episcleral venous pressure, a part of the drainage pathway more distal to the trabecular meshwork, and it is not directly affected by angle closure or damage to the trabecular meshwork. Because of this, it is hypothesized that netarsudil may still be effective in patients with ACG with some degree of access to the angle. This study aims to evaluate the comparative efficacy of netarsudil in reducing IOP in eyes with three glaucoma subtypes—OAG, ACG, and CMG. The goal of this study is to elucidate the efficacy of netarsudil in different types of glaucoma including eyes with closed or previously appositional angles. Within Asian populations, ACG represents a larger share of glaucoma morbidity than OAG, highlighting the need for studies on ACG within Asian populations.[14] Additionally, there is a paucity of studies regarding the efficacy of netarsudil in the Vietnamese population, an Asian demographic with a significant proportion of angle-closure forms of glaucoma.[15,16] Studies evaluating drug efficacy may help inform and improve care for this population.

Materials and Methods

Study Design and Participants

A retrospective study of eyes with a diagnosis of primary open-angle glaucoma (OAG), combined mechanism glaucoma (CMG), or angle-closure glaucoma (ACG) and who received netarsudil was conducted at an ophthalmology clinic of a single glaucoma specialist (N.N.) in San Jose, California. OAG was defined as eyes that had Shaffer angle grading of at least 2 for more than 180 degrees. CMG was defined as eyes with initially closed angles (Shaffer angle grading 1 or less for 180 degrees or more), and the angle subsequently deepened and met the open angle definition after laser iridotomy, but the IOP remained elevated and/or required glaucoma medications. ACG was defined as eyes that had Shaffer angle grade 1 or less for 180 degrees or greater on gonioscopy and/or peripheral anterior synechiae (PAS).

Due to the retrospective nature of this study, informed consent was exempted by the institutional review board (IRB), Advarra, Inc. The study ID is Pro00087212. Study subjects were not available to provide informed consent and were selected from the existing clinic population prior to the study. The study was conducted in accordance with the tenets of the Declaration of Helsinki. Patient data confidentiality was maintained by the standard protocol for handling protected health information. Patients were prescribed either Rhopressa or Rocklatan. Medical charts of patients prescribed with either medication between 2018 and 2024 were reviewed. Inclusion criteria were: (1) patients who had primary glaucoma or had suspicion of glaucoma and (2) patients who received Rhopressa or Rocklatan for additional IOP reduction for a minimum of 3 months. Patients receiving Rocklatan had previously been receiving a prostaglandin analog. Exclusion criteria were: (1) patients who had history of prior cataract surgery, (2) patients who underwent prior glaucoma surgery (eg., trabeculectomy, tube shunt surgery), (3) patients who underwent selective laser trabeculoplasty (SLT), (4) patients who underwent previous cyclophotocoagulation (eg., Diode TSCPC, MPTLT), and (5) patients who had secondary glaucoma (eg., exfoliation, steroid-induced, inflammatory).

Data Collection

Patient characteristics were collected from medical records. Average retinal nerve fiber layer (RNFL) using optical coherence tomography (OCT) (Cirrus OCT, CarlZeiss Meditec, Dublin, CA, USA), central corneal thickness (CCT), gonioscopy, Humphrey visual field (HVF) automated perimetry (24–2 Swedish interactive threshold algorithm [SITA] standard on Humphrey Field Analyzer-2; Carl Zeiss Meditec, Dublin, CA, USA) were recorded at baseline. Baseline data was considered as measurements within one year prior to participants being prescribed Rhopressa or Rocklatan. IOP measured by Goldmann applanation tonometry, number of glaucoma medications, visual acuity, and cup-to-disc (C:D) ratio were recorded at the start of Rhopressa or Rocklatan treatment and each subsequent follow-up appointment. Adverse side effects of the Rhopressa or Rocklatan treatment, including conjunctival hyperemia, conjunctival hemorrhage, corneal verticillata, follicular conjunctivitis, and others (specified) were also recorded at baseline and at each subsequent follow-up. Lastly, any previous laser peripheral iridotomy (LPI) was recorded at baseline. Study discontinuation was considered when patients underwent any of the procedures or developed any of the characteristics of the exclusion criteria and was recorded as the last follow-up visit. The outcome measures were mean IOP reduction at 6 months of therapy with netarsudil, rate of therapy discontinuation due to side effects, and rate of uncontrolled IOP defined by addition of another glaucoma therapy or surgery.

For the outcome of IOP reduction, IOP values were adjusted to account for medication changes after initiation of the ROCK inhibitor. Specifically, IOP was adjusted by 3.8 mmHg for each change in medication, either addition or reduction, equivalent to the mean pressure-lowering effect of timolol, including in patients beginning netarsudil/latanoprost combination therapy. This correction method has been applied in previous studies.[17] A recent multi-center study of the adjunctive effect of netarsudil suggests a significant IOP reduction, supporting the use of a correction formula.[18] For eyes that underwent further intervention within six months after starting the ROCK inhibitor, the last IOP measurement before the intervention was used for analysis. Both additional glaucoma therapy and subsequent interventions were considered as uncontrolled IOP events in the survival analysis.

Statistical Analysis

We compared OAG, CMG, and ACG. Baseline characteristics were summarized as mean ± SD or median (interquartile range) and compared using one-way ANOVA or Kruskal–Wallis for continuous variables and chi-square or Fisher's exact tests for categorical variables.

The IOP reduction outcome was analyzed with mixed-effects linear regression including a subject-level random intercept to account for correlation between both eyes of the same subject. Two pre-specified multivariable approaches were used: (1) adjustment for all covariates with $P<0.05$ in univariable analyses; and (2) the same model additionally adjusted for baseline IOP.

Discontinuation due to side effects and uncontrolled IOP were modeled as time-to-event outcomes using mixed-effects parametric survival models with a subject-level random effect; incidence rates were reported with exact Poisson 95% confidence intervals. All tests were two-sided with $\alpha=0.05$. Analyses used Stata XX.0 (StataCorp, College Station, TX).

Results

Baseline Characteristics

A total of 235 eyes from 159 patients were included in this study. 116 patients who met other criteria were excluded for not achieving the endpoint of 3 months of therapy duration. Of these 31 patients did not have adequate IOP reduction, 49 had side effects, and the remaining were excluded for other reasons such as being lost to follow up or inability to afford the medication. Of the patients who had side effects, 24 discontinued treatment primarily due to redness, 21 due to itchiness, 2 due to sandy/foreign body sensation, 1 due to mucous discharge, and 1 due to pain and decreased visual acuity. Sensitivity analysis showed that with n=235, the study had 80% power to detect an effect size of 0.21, corresponding to 1.77 mmHg in IOP reduction. As this is below the 2 mmHg minimum threshold for clinical relevance, the study was adequately powered to detect clinically meaningful differences.

Of the included patients, there were 116 classified as OAG, 66 classified as CMG, and 53 classified as ACG. 89 eyes were from female patients (60.0%), and the majority were from Vietnamese patients (90%). Eyes with OAG were from patients significantly younger than those with CMG (OAG=73±10, CMG=77±8, p=0.045). Eyes with OAG had a better baseline VA than eyes with CMG (expressed as a decimal, OAG=0.42±0.20, CMG=0.35±0.14, p=0.025). The rate of PAS across all eyes was 3.8% (2% of all CMG and 15% of all ACG). All baseline characteristics are shown in Table 1.

Table 1 Baseline Characteristics

	Total	**OAG**	**CMG**	**ACG**	**p-value**
	N=235	**N=116**	**N=66**	**N=53**	
N eyes (subjects)	235 (159)	116 (68)	66 (64)	53 (27)	
ROCK Inhibitor Type					0.172*
• Netarsudil	226	109	64	53	
• Netarsudil/latanoprost	9	7	2	0	
Age (years), mean±SD	74±9	73±10	77±8	75±7	0.045
Gender, n (%)					0.197
• Female	89 (56)	40 (50)	30 (67)	19 (56)	
• Male	70 (44)	40 (50)	15 (33)	15 (44)	
Race, n (%)					0.707 *
• Vietnamese	143 (90)	69 (86)	42 (93)	32 (94)	
• Other	16 (10)	11 (14)	3 (7)	2 (6)	
Eye, n (%)					0.611#
• Right	119 (51)	55 (47)	35 (53)	29 (55)	
• Left	116 (49)	61 (53)	31 (47)	24 (45)	
Baseline HVF MD, median (IQR)	−3.52 (−6.78–−1.56)	−2.86 (−5.68–−1.37)	−4.57 (−8.03–−1.56)	−4.92 (−8.20–−1.95)	0.094
Baseline RNFL, mean±SD	81±14	80±15	84±13	79±14	0.195
Baseline CCT, mean±SD	538±37	539±34	532±43	545±35	0.668
Baseline VA (decimal), mean ±SD	0.39±0.18	0.42±0.20	0.35±0.14	0.39±0.18	0.025
Baseline IOP, mean±SD	18.1±4.8	17.7±4.6	17.7±5.1	19.2±4.7	0.123
Baseline C:D, mean±SD	0.65±0.23	0.65±0.23	0.63±0.24	0.67±0.23	0.648

(*Continued*)

Table 1 (Continued).

	Total	OAG	CMG	ACG	p-value
	N=235	**N=116**	**N=66**	**N=53**	
Baseline number of medications, median (IQR)	2 (1–3)	2 (1–3)	2 (1–3)	2 (1–3)	0.731
Baseline number of medications, n (%)					0.006*
• 0	4 (2)	2 (2)	0 (0)	2 (4)	
• 1–3	203 (86)	99 (85)	64 (97)	40 (75)	
• 4–6	28 (12)	15 (13)	2 (3)	11 (21)	

Notes: # Chi square test, * Fisher's exact test.

IOP Reduction

There was no significant difference between the mean IOP reduction at 6 months between the OAG and CMG groups (OAG=4.2±3.9 mmHg, CMG=3.4±4.1 mmHg, p=0.254). Adjusted for baseline IOP and significant baseline characteristics, there was no statistically significant difference (p=0.331).

Similarly, there was no significant difference between the mean IOP reduction in mmHg at 6 months between OAG and ACG groups (OAG=4.2±3.9 mmHg, ACG=4.3±5.0 mmHg, p=0.739). Using similar additional models, there were no significant differences (adjusted for baseline IOP and significant baseline characteristics, p=0.179) (Table 2). This remained similar for analysis without use of the IOP correction formula (Table 3).

Table 2 IOP Reduction Among 3 Groups (OAG, CMG, ACG) at 6 Months Including Netarsudil/Latanoprost Combination Therapy

Group	Mean±SD (mmHg)	Uni-variable Analysis		Multi-Variable Analysis[§]	
		Mean Difference (95% CI)	**P-value**	**Mean Difference (95% CI)**	**P-value**
At 6 months					
OAG	4.2±3.9	Reference		Reference	
CMG	3.4±4.1	−0.90 (−2.44, 0.64)	0.254	−0.61 (−1.84, 0.62)	0.331
ACG	4.3±5.0	−0.27 (−1.32, 1.86)	0.739	−0.88 (−2.16, 0.40)	0.179

Notes: [§] Adjusted for baseline IOP, age, baseline VA, number of medications at baseline, baseline PAS.

Table 3 IOP Reduction Among 3 Groups (OAG, CMG, ACG) at 6 Months Without Use of IOP Correction Formula

Assigned Group	Mean±SD	Uni-Variable Analysis		Multi-Variable Analysis [§]	
		Mean Difference (95% CI)	**P-value**	**Mean Difference (95% CI)**	**P-value**
OAG	3.8±4.0	Reference		Reference	
CMG	3.4±4.4	−0.43 (−1.89, 1.02)	0.557	−2.30 (−1.39, 0.80)	0.596
ACG	3.6±4.6	−0.01 (−1.54, 1.51)	0.985	−1.01 (−2.17, 0.14)	0.086

Notes: [§] Adjusted for baseline IOP, and factors with p<0.05 in Table 1, including age, baseline VA, number of medications at baseline, baseline PAS.

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Sensitivity analysis was performed to exclude netarsudil/latanoprost combination therapy, and no significant difference was found with and without adjustment for baseline IOP and significant baseline characteristics (Table 4).

Regarding the proportion of eyes that achieved at least a 20% reduction in IOP, a mean of 20.7%, 17.0%, and 19.9% of eyes successfully achieved this reduction in OAG, CMG, and ACG eyes, respectively (Table 5).

Rate of Discontinuation Due to Side Effects

ROCK inhibitors were discontinued in patients due to severe side effects (eg. significant hyperemia, ophthalmalgia, pruritus, etc). There was no significant difference in the rate of discontinuation of ROCK inhibitors due to side effects between OAG and CMG groups at 6 months [n=18 (16%) in OAG, n=9 (14%) in CMG, p=0.786]. Similarly, there was no significant difference when comparing the OAG with ACG groups [n=4 (8%) in ACG, p=0.277] (Table 6). Conjunctival hyperemia was the most common side effect related to discontinuation (OAG=26% of all discontinuations, CMG=56%, ACG=100%) (Table 7).

Table 4 IOP Reduction Among 3 Groups (OAG, CMG, ACG) at 6 Months Excluding Netarsudil/Latanoprost Combination Therapy

Assigned Group	Mean±SD	Uni-Variable Analysis		Multi-Variable Analysis §	
		Mean Difference (95% CI)	P-value	Mean Difference (95% CI)	P-value
OAG	4.2±3.9	Reference		Reference	
CMG	3.4±4.2	−0.91 (−2.49, 0.67)	0.260	−0.63 (−1.89, 0.62)	0.321
ACG	4.3±5.0	0.26 (−1.35, 1.87)	0.751	−0.84 (−2.13, 0.45)	0.201

Notes: § Adjusted for baseline IOP, and factors with p<0.05 in Table 1, including age, baseline VA, number of medications at baseline, baseline PAS.

Table 5 Proportion of Eyes Achieving at Least 20% IOP Reduction

	% IOP Reduction (mean ± SD)	Proportion of Eyes ≥ 20% IOP Reduction
Total	19.5 ± 21.6	118/235
OAG	20.7 ± 21.2	61/116
CMG	17.0 ± 21.5	29/66
ACG	19.9 ± 23.1	28/53

Table 6 Rate of Discontinuation Due to Side Effect at 6 Months

Assigned Group	Discontinuation Due to Side Effect, n (%)	Rate of Discontinuation Due to Side Effect		
		Rate/100 Eyes-Years (95% CI §)	Hazard RATIO (95% CI) *	P-value*
OAG	18 (16)	35.2 (20.8, 55.6)	Reference	
CMG	9 (14)	31.9 (14.6, 60.5)	0.88 (0.34, 2.52)	0.786
ACG	4 (8)	18.6 (5.1, 47.6)	0.51 (0.15, 1.70)	0.277

Notes: *Mixed-effects parametric survival models– adjusted for subject-level effects.

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Table 7 Rate of Side Effects Leading to Discontinuation at 6 Months

Assigned Group	Conjunctival Hyperemia, n (%)	Blurry Vision, n (%)	Dry Eye, n (%)	Ocular Pruritus, n (%)	Other (Tearing, Swelling, Pain)
OAG	5 (26)	1 (5)	1 (5)	3 (16)	10 (53)
CMG	5 (56)	2 (22)	2 (22)	1 (11)	7 (78)
ACG	4 (100)	0 (0)	0 (0)	1 (25)	1 (25)

Notes: Percentages are calculated using the total number of discontinuations per subgroup. Total number of eyes per subgroup may add to greater than the number of recorded discontinuations noted in Table 3 because more than one side effect may be documented in one eye. Total percentage per subgroup may add to more than 100% because more than one side effect may be documented in one eye.

Table 8 Rate of Uncontrolled IOP at 6 months

Assigned Group	Uncontrolled IOP, n (%)	Rate of Uncontrolled IOP		
		Rate/100 Eyes-Years (95% CI §)	Hazard Ratio (95% CI) *	P-value*
OAG	6 (5.2)	11.0 (4.0, 24.0)	Reference	
CMG	9 (13.6)	29.8 (13.6, 56.5)	2.90 (0.69, 12.17)	0.146
ACG	5 (9.4)	20.2 (6.6, 47.1)	1.74 (0.35, 8.55)	0.497

Notes: *Mixed-effects parametric survival models– adjusted for subject-level effects. § Poisson exact 95% confidence interval.

Rate of Uncontrolled IOP

There was no significant difference in the rate of uncontrolled IOP between OAG and CMG groups (OAG rate per 100 eyes-years=17.5, CMG rate per 100 eyes-years=20.6, p=0.847). Similarly, there was no significant difference when comparing OAG with ACG groups (ACG rate per 100 eyes-years=33.9, p=0.284) (Table 8).

There was no significant difference in the rate of uncontrolled IOP between OAG and CMG groups at 6 months (OAG=5.2%, CMG=13.6%, p=0.146). Similarly, there was no significant difference when comparing OAG with ACG groups (ACG=9.4%, p=0.497).

Discussion

Across all measures in this study including IOP reduction and discontinuation rate, there were no statistically significant differences for netarsudil addition among OAG, CMG, and ACG groups. The degree of IOP reduction is similar to that reported in prior literature on netarsudil's IOP effects as an adjunctive therapy in OAG and ocular hypertension.[19] Additionally, a prior study suggests that netarsudil may be effective as an adjunctive therapy in refractory glaucoma, supporting its potential role in more treatment-resistant cases.[20] The present study adds to this by suggesting efficacy of netarsudil as a pharmacotherapeutic option across the glaucoma subtypes including ACG despite the differences in anterior chamber anatomy.

These findings are supported by prior studies that suggest this observation may be explained by the multiple mechanisms through which ROCK inhibitors lower IOP.[21] In addition to relaxing the trabecular meshwork, ROCK inhibitors also decrease IOP by reducing episcleral venous pressure (EVP), thereby promoting episcleral outflow. The Goldmann equation describes the relationship between IOP, EVP, and aqueous dynamics rate: IOP = EVP + (Q-U)/C where Q is the rate of aqueous humor production, U is the rate of uveoscleral outflow, and C is the trabecular outflow facility.[22] Therefore, a decrease in EVP is directly related to a decrease in IOP. Similar studies on prostaglandin analogs, whose mechanism of lowering IOP is by primarily increasing uveoscleral outflow, indicate their efficacy in reducing IOP across glaucoma subtypes of various angle status.[23] This evidence supports that alternate pathways can be equally effective in lowering IOP in cases of narrow angles and trabecular outflow impairment from microstructural damage.

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Peripheral anterior synechiae represent another important determinant of angle anatomy, as they create adhesions that obstruct aqueous humor access to the trabecular meshwork. In our cohort, baseline PAS involvement was relatively low, which may have contributed to the lack of observed difference across subtypes. Because the efficacy of netarsudil relies on some degree of angle access in ACG, it is possible that 360-degree involvement of PAS leading to greater or complete angle occlusion could inhibit netarsudil's therapeutic effects. Further studies on the relationship between the extent of angle closure as determined by gonioscopy and netarsudil efficacy would help clarify clinical scenarios in which netarsudil should be prescribed.

Regarding safety profile, the rate of discontinuation due to side effects was similar in each group, with an overall discontinuation rate of 13.1%. Previous studies have reported discontinuation rates of about 11% due to side effects and also note hyperemia as the most common adverse effect.[24] Combined with the comparable IOP reduction observed, these results support the viability and safety profile of netarsudil for both open-angle and angle-closure glaucoma.

This study also contributes to the limited body of literature examining ROCK inhibitor efficacy in Asian populations, specifically among Vietnamese patients, in whom glaucoma, particularly ACG and CMG, is highly prevalent. However, the findings cannot be generalized to other ethnic groups given the lack of diversity in this sample. Limitations of the retrospective design include potential selection bias, a relatively small number of subjects per subgroup which limits variability and power, and the inability to establish causality. Furthermore, the addition of medications rather than reduction may increase drug burden on patients. The decision to expand the topical medication regimen results in greater responsibility and risks for side effects–which are significant with rho kinase inhibitors–and should be considered carefully before their institution. Overall, future prospective studies with more diverse and expanded populations, and stratification by extent of angle status and extent of PAS are needed to refine clinical recommendations.

Conclusion

In this retrospective review, no differences in IOP reduction or discontinuation rates due to side effects were detected between eyes with open-angle, combined-mechanism, and angle-closure glaucoma with netarsudil therapy. Based on these findings, it is hypothesized that netarsudil may have efficacy as an adjunctive therapy in glaucoma management, including in patients with angle compromise. Further studies are needed to investigate the clinical relevance of these findings. Given the predominance of glaucoma in Asian populations, including Vietnamese patients, further studies are warranted to confirm these results and to compare ROCK inhibitors with other adjunctive glaucoma therapies.

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Disclosure

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