A 3-Month Interim Report of a Prospective, Double-Masked, Randomized, Multicenter, Active-Controlled, Parallel-Group, 12-Month Study Assessing the Safety and Ocular Hypotensive Efficacy of Pg324 Ophthalmic Solution

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Purpose/Relevance
For many glaucoma patients, current glaucoma medications are not sufficiently effective as monotherapy to achieve target intraocular pressure (IOP). The safety and efficacy of a fixed-dose combination of netarsudil 0.02% and latanoprost 0.005% (PG324) was compared to that of its components.

Methods
This was a double-masked, active-controlled, parallel, randomized study. Enrolled were patients with open-angle glaucoma or ocular hypertension with unmedicated IOP > 20 mmHg and < 36 mmHg at 08:00 hours and IOP > 17 mmHg and < 36 mmHg at 10:00 and 16:00 hours. Patients were randomized to receive PG324, netarsudil or latanoprost, all dosed QD (PM) for 12 months. Previously, we reported a 28-day study in which PG324 provided clinically and statistically superior ocular hypotensive efficacy relative to its individual active components. We report here the results of the planned primary efficacy and interim safety analysis at 3 months.

Results
Enrolled were 718 patients of which 85% (201/238), 82% (201/244) and 95% (223/236) completed three months of dosing in the PG324, netarsudil and latanoprost groups, respectively. Mean baseline IOP was similar across the groups and ranged from 22.4 to 24.8 mm Hg. Mean treated IOPs ranged from 14.8 to 16.0 mm Hg, 17.2 to 19.0 mm Hg and 16.7 to 17.8 mm Hg, respectively, with PG324 IOP reductions achieving statistical superiority to netarsudil and latanoprost at all 9 time points across the Week 2, Week 6 and Month 3 visits (p < 0.001). Mean IOP reductions in the PG324 group were 1.8 to 3.0 mm Hg greater than in the netarsudil group, and 1.3 to 2.5 mm Hg greater than in the latanoprost group. At Month 3, 44% of PG324 subjects achieved mean diurnal IOPs of ≤ 15 mm Hg compared to 23% and 25% of netarsudil and latanoprost subjects, respectively (p < 0.0001). The most frequent adverse events were conjunctival hyperemia (53%, 41% and 14%, respectively) and conjunctival hemorrhage (11%, 14% and 0.4%, respectively), which were of mild severity and sporadic frequency for the large majority of subjects. There were no drug-related serious or systemic adverse events.

Discussion
PG324 met the criteria for demonstrating superiority over both latanoprost and netarsudil with statistical superiority of PG324 was demonstrated at all 9 time points versus latanoprost and versus netarsudil (p<0.0001).

Conclusion
PG324 provided clinically and statistically significantly greater ocular hypotensive efficacy than its individual components, netarsudil and latanoprost. The safety profile of PG324 was similar to that of netarsudil alone.

References