Audit reviewing the efficacy & tolerability of latanoprost/netarsudil in concomitant treatment of primary open angle glaucoma / ocular hypertension in a UK hospital

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Background

Latanoprost/netarsudil was approved by NICE in October 2024 as a treatment for UK patients with ocular hypertension or primary open angle glaucoma, specifically when treatment with a prostaglandin analogue, either fixed-dose combinations are unsuitable, have been insufficient or intolerable [1]. However, there has been limited data on the effectiveness and tolerability in UK district hospitals, particularly in terms of local patient populations and disease severity.

This audit aimed to assess whether Roclanda (latanoprost/netarsudil) is an effective and tolerable medication in the treatment of glaucoma and ocular hypertension, considering the local practice population, severity of disease and resources available in a UK district hospital setting.

Aims & Standards

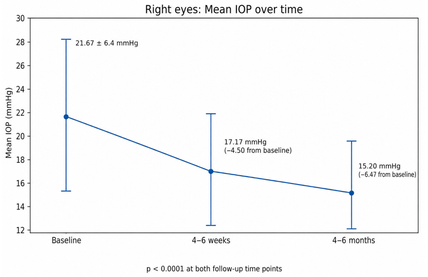
- All patients achieve a reduction in intraocular pressure of ≥4 mmHg, as comparable to open-label multi-centre published data [2], from initiation to week 4-6 review and month 4-6 review for patients receiving concomitant therapy for POAG/OHT.
- The number of patients experiencing side effects from Roclanda treatment is comparable to published clinical study data [3].
- ≤5% of patients experience side effects leading to discontinuation or treatment or switching to alternative treatment, in those receiving concomitant therapy for POAG/OHT [3].

Methods

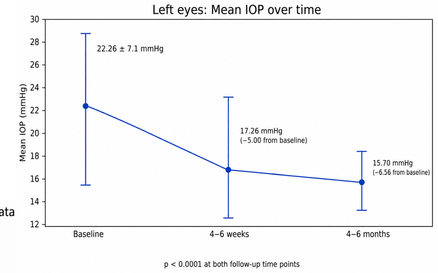
Over a 3 month period (13/3/25 - 31/7/25), we collected data from patients over 18 years old with diagnosed primary open angle glaucoma or ocular hypertension that were started on Roclanda within their existing drop regime. We excluded patients with a known hypersensitivity to netarsudil, a contraindication to starting Roclanda, those with a different subtype of glaucoma or a visual acuity <6/60, as they were less likely to benefit from as strict intraocular pressure control. We identified 47 patients, of which 43 were eligible for the study - the 4 patients excluded were retained in side effect analysis. Findings were displayed at a local governance meeting.

Results

- 43 patients were evaluated for IOP analysis (data analysed by right and left eyes according to which eye received Roclanda).
- Mean IOP (mmHg) from baseline was collected at 4-6 weeks and 4-6 months, then analysed by mixed-effects logistic regression analysis.
- IOP decreased in 30/35 right eyes (85.7%) and 31/34 left eyes (91.1%).
- A few eyes did not achieve IOP reduction - in right eyes, 2 showed no change (5.7%); 3 increased, while the largest rise being > 3mmHg at 4-6 weeks; in left eyes, 3 increased, with the largest increase by 4 mmHg at 4-6 months.



p < 0.0001 at both follow-up time points



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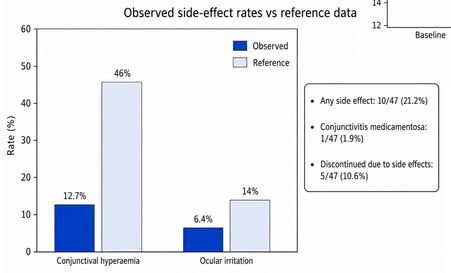

- Any side effect: 10/47 (21.2%)
- Conjunctivitis medicamentosa: 1/47 (1.9%)
- Discontinued due to side effects: 5/47 (10.6%)

Discussion

The majority of our patients were on multi-agent topical therapy prior to Roclanda initiation, most commonly prostaglandin analogue + carbonic anhydrase inhibitor + beta blocker (28/43, 65.1%). Compared with published studies [4], baseline IOP was high in our cohort (21.67–22.26 mmHg), suggesting a more treatment-resistant population. Mean age was 73.9 years (range 41–89); 24/43 female and 39/43 White.

We noted trailing data points, particularly at our 4-6 month reviews. As part of re-audit, we aimed to follow up missing data points from our patient population, with 5 of 6 missing follow-up data points later obtained to strengthen our analysis.

Limitations

The sample size was small compared with published literature, and Asian patients were under-represented relative to the local population. Only 34.8% of our patients had SLT laser prior to commencing Roclanda, despite it being first line management as per current NICE guidelines [1]. Some patients were excluded due to multiple agents being started simultaneously, which would have confounded results. IOP measurement techniques were not standardised across visits, introducing potential measurement bias.

Despite lower reported side-effect rates, discontinuation was higher than expected. We noted that variation in clinician experience managing Roclanda-related side effects may have contributed to this, for example with differing advice around lubricant use before and after instillation for conjunctival hyperaemia.

Conclusion

Our local audit highlighted that Roclanda may be suitable for concomitant therapy in patients with a diagnosis of primary open angle glaucoma or ocular hypertension, with significant reductions in IOP across measured intervals. Many of our patients were on 2 or more classes of glaucoma medications, prior to switching to Roclanda, with lower than reported common side effects of conjunctival hyperaemia & instillation site pain, highlighting its potential in the medical management of glaucoma treatment.

References

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3. Santen (2026). Roclanda 50 micrograms/ml + 200 micrograms/ml eye drops, solution SmPC. Available at: https://www.medicines.org.uk/emc/product/14801/smpc#gref. Accessed 6th May 2026.
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