Treatment of open angle glaucoma or ocular hypertension with preservative-free tafluprost/timolol fixed dose combination in a real-world clinical practice setting: a cross country subanalysis

Fernando Lopez-Lopez[1], Claudia Fassari[2], Michele Iester[3], Gábor Holló[4], Francesco Oddone[5]

[1]Instituto Oftalmologico Gomez-Ulla, Galicia, Spain
[2]Santen SA, Geneva, Switzerland
[3]Eye Clinic, DiNOGMI, University of Genoa, Opsdale Policlinico San Martino, Genoa, Italy
[4]Semmelweis University, Budapest, Hungary
[5]IRCSS-Fondazione Bietti, Roma, Italy

Introduction

European and international guidelines recommend topical prostaglandin analogue (PGA) and β-blocker monotherapies among the first-line intraocular pressure (IOP)-lowering treatments for open-angle glaucoma (OAG) and/or ocular hypertension (OHT).[1,2]

Where IOP is insufficiently controlled with monotherapy, combination therapy is advocated. Fixed-dose combination therapies are considered preferable to instillation of individual agents.[2]

The preservative-free tafluprost (0.0015%) and timolol (0.5%) fixed-dose combination (PF tafluprost/ timolol FC) has demonstrated tolerability and IOP-lowering efficacy in randomized and observational studies, including the VISIONARY study; a large European, multicenter, observational trial.[3-9]

VISIONARY demonstrated statistically and clinically significant IOP reductions with PF tafluprost/timolol FC treatment in patients with OAG and OHT who had not achieved an adequate response with PGA or β-blocker monotherapy.[9] The current analysis examined data from the VISIONARY study to compare reported outcomes across the 7 countries where more than 10 patients were enrolled on the trial.

Methods

Data were collected during routine consultations at 66 ophthalmology clinics in Austria, Denmark, Hungary, Ireland, Italy, Latvia, the Netherlands, Norway, Russia, Spain, Sweden and the United Kingdom (UK). Following initiation of PF tafluprost/ timolol FC therapy, treatment outcomes were assessed at Week 4, Week 12 and Month 6. Baseline and Month 6 study visits were mandatory, while attendance at Week 4 and Week 12 visits was optional.

Inclusion criteria

- Male/female adults (aged ≥18 years)
- OAG or OHT diagnosis
- Insufficient response to previous PGA or β-blocker monotherapy
- Likely to benefit from PF eye drops (judged by physician).

Exclusion criteria

- Treated with PF tafluprost/timolol FC (previously or currently)
- Ophthalmic surgery (within 6 months)
- Pregnancy or breastfeeding

Primary study endpoint

- Mean absolute change in IOP from baseline at Month 6 after a switch to PF tafluprost/timolol FC

Exploratory endpoints

- Mean (standard deviation [SD]) change in IOP from baseline at Month 6 and interim study visits according to country (where >10 patients enrolled)
- Patient-assessed tolerability of PF tafluprost/ timolol FC

Statistical analysis

- Change from baseline concerning IOP was assessed using a two-sided t-test

Results

Patient demographics

In total, 577 patients were included in the analysis for the full VISIONARY study population. Of these, 564 patients were from countries recruiting >10 patients to the study.

Countries included in the current analysis comprised:

- Italy (n=160)
- Hungary (n=96)
- Spain (n=92)
- Russia (n=87)
- UK (n=65)
- Latvia (n=51)
- Norway (n=13)

IOP change according to country

Table 1 shows the mean (SD) IOP change at each study visit according country:

- At Month 6, mean (SD) IOP was significantly reduced from baseline for patients based in each of the countries included in the analysis
- Reduction in mean (SD) IOP at Month 6 ranged from 5.2 (4.04) mmHg (22.3%; p <0.0001) in Spain to 7.8 (3.40) mmHg (31.8%; p <0.0001) in Latvia
- Mean (SD) IOP reduction was also significant at Week 4 and Week 12 interim study visits, regardless of country (p <0.0001 for all countries with Week 4 and Week 12 data available)

Table 1. Change in mean (SD) IOP from baseline according to country

Visit	N	Mean (SD) IOP, mmHg	Mean (SD) IOP reduction from baseline, mmHg	Mean % IOP reduction from baseline	p value*
Italy					
Baseline	160	19.6 (3.61)			
Week 4	158	14.8 (2.49)	4.8 (3.39)	23.1	<0.0001
Week 12	153	14.4 (2.42)	5.1 (3.38)	24.7	<0.0001
Month 6	160	14.5 (2.55)	5.1 (3.70)	24.1	<0.0001
Hungary					
Baseline	96	20.8 (3.40)			
Week 4	93	16.1 (2.60)	4.8 (3.22)	21.7	<0.0001
Week 12	78	15.2 (2.29)	5.5 (3.37)	25.0	<0.0001
Month 6	96	15.8 (2.98)	5.0 (3.77)	22.6	<0.0001
Spain					
Baseline	92	21.9 (3.97)			
Week 4	85	16.6 (3.63)	5.5 (3.08)	24.3	<0.0001
Week 12	74	16.3 (3.07)	5.6 (3.25)	24.5	<0.0001
Month 6	92	16.7 (3.51)	5.2 (4.04)	22.3	<0.0001
Russia					
Baseline	87	23.8 (5.37)			
Week 4	83	16.7 (2.53)	7.3 (5.17)	28.6	<0.0001
Week 12	81	16.7 (2.69)	7.4 (5.40)	28.7	<0.0001
Month 6	87	16.7 (3.22)	7.1 (5.10)	28.1	<0.0001
UK					
Baseline	65	22.0 (4.50)			
Week 4	52	17.2 (3.55)	4.9 (3.75)	20.8	<0.0001
Week 12	52	16.6 (3.25)	5.4 (3.99)	22.9	<0.0001
Month 6	65	16.2 (2.94)	5.8 (3.95)	24.9	<0.0001
Latvia					
Baseline	51	24.0 (4.65)			
Week 4	51	18.6 (4.25)	5.4 (3.27)	22.0	<0.0001
Week 12	50	17.2 (3.37)	6.9 (3.40)	27.6	<0.0001
Month 6	51	16.2 (3.21)	7.8 (3.40)	31.8	<0.0001
Norway					
Baseline	13	22.9 (4.27)			
Month 6	13	16.9 (5.66)	6.0 (3.87)	27.0	0.0001

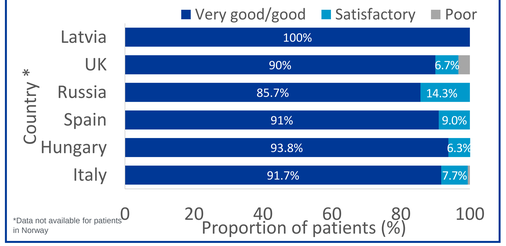
*Significance testing using two-sided Wilcoxon sign rank test

Patient assessment of tolerability

Figure 1 shows the patient-reported tolerability rating for PF tafluprost/timolol FC treatment at Month 6.

In each of the countries reporting data, more than 80% of patients reported tolerability to be very good/good.

Figure 1. Patient-reported tolerability rating for PF tafluprost/ timolol FC treatment at Month 6



*Data not available for patients in Norway

Discussion

- In routine clinical practice, a switch to PF tafluprost/timolol FC therapy from PGA or β-blocker monotherapy was associated with significant IOP reductions across each of the countries recruiting more than 10 patients to the VISIONARY study
- In each of the countries included in the analysis, statistically and clinically significant IOP reductions were demonstrated from Week 4 and sustained through Month 6
- Tolerability with PF tafluprost/timolol FC was rated highly by patients

Conclusions

In this real-world study, PF tafluprost/timolol FC provided significant IOP-lowering efficacy in patients previously inadequately controlled on β-blocker or PGA monotherapy, and results were consistent across each of the countries included in the analysis.

References

1. International Council of Ophthalmology. Guidelines for glaucoma care. 2016; 2. European Glaucoma Society. Terminology and guidelines for glaucoma. 2014; 3. Pfeiffer N et al. Adv Ther. 2014;31:1228–46; 4. Holló G et al. J Ocul Pharmacol Ther. 2014;30:468–75; 5. Holló G et al. Adv Ther. 2014;31(9):932–44; 6. Holló G et al. Expert Opin Drug Saf. 2015;14:609–617; 7. Kaamiranta K et al. Clin Pharmacokinet. 2016;55:485–94; 8. Hoy SM. Drugs. 2015;75:1807–13; 9. Oddone F et al. Adv Ther. 2020;37(4):1436–51.

Disclosures

Fernando Lopez-Lopez has no relevant financial disclosures
Claudia Fassari is an employee at Santen SA
Michele Iester has received speaker grants from Santen, Thea, Omikron Italia and Novartis
Gábor Holló has received consultancy and lecturing fees from Santen and Aerie
Francesco Oddone has received consultancy fees from Santen, Allergan, Sooft, Omikron Italia, Centervue and Novartis

NP-TAPTIQ-EMEA-0028
November 2020

VISIONARY

© Santen