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Clinical outcomes of aflibercept 8 mg for retinal vein occlusion in subgroups defined by baseline characteristics in the QUASAR trial

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Purpose

- To assess the impact of baseline (BL) best-corrected visual acuity (BCVA) and BL central subfield retinal thickness (CRT) on clinical outcomes following treatment with aflibercept 8 mg versus 2 mg at Week 36 in patients with macular edema following retinal vein occlusion (MEfRVO)

Conclusions

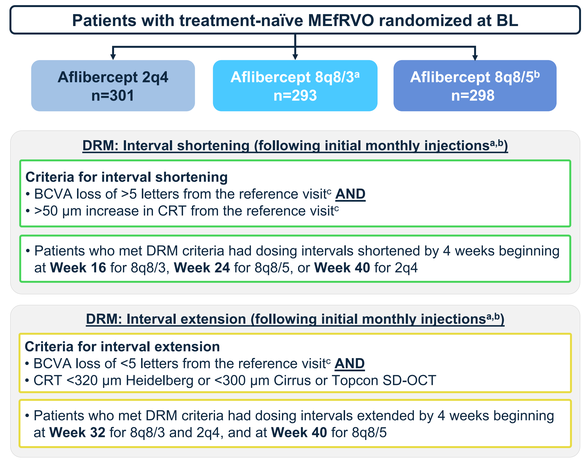
- In QUASAR, **aflibercept 8 mg** demonstrated **non-inferior BCVA gains** (primary endpoint) and **comparable reductions in CRT versus aflibercept 2 mg**, with fewer injections, in patients with MEfRVO
- Aflibercept 8 mg achieved **clinically meaningful BCVA gains from BL at Week 36** in patients with MEfRVO across BL BCVA and BL CRT subgroups, with fewer mean injections than aflibercept 2 mg
- **The majority of patients** in the aflibercept 8q8/3 group achieved a **last assigned dosing interval of ≥8 weeks at Week 36 compared with** those who received **aflibercept 2 mg** (>90% vs >70%, respectively)

Scan the QR code to access the QUASAR study infographic[1]

Methods

- QUASAR (NCT05850520) was a 64-week Phase 3 trial in which adult patients with treatment-naïve MEfRVO were randomized 1:1:1 to receive intravitreal aflibercept 8 mg every 8 weeks, after 3 (8q8/3) or 5 (8q8/5) initial monthly injections, or aflibercept 2 mg every 4 weeks (2q4) (**Figure 1**)
- Following initial monthly injections, dosing intervals could be shortened or extended based on predefined criteria (**Figure 1**)
- In this analysis, the primary endpoint of mean change from BL in BCVA at Week 36 was evaluated by BL characteristics (BL BCVA <60 letters and ≥60 letters; BL CRT ≤581 µm [observed median] and >581 µm subgroups) across treatment groups

Figure 1: QUASAR study design



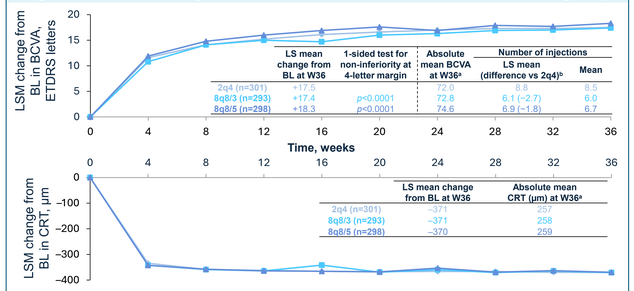
The primary efficacy endpoint was change from BL in BCVA at Week 36, with a non-inferiority margin of 4 letters. [a]After 3 monthly injections. [b]After 5 monthly injections. [c]Week 12 for 8q8/3, and Week 20 for 8q8/5 and 2q4. 2q4, aflibercept 2 mg administered every 4 weeks; 8q8/3, aflibercept 8 mg administered every 8 weeks, after 3 initial monthly doses; 8q8/5, aflibercept 8 mg administered every 8 weeks, after 5 initial monthly doses; BCVA, best-corrected visual acuity; BL, baseline; CRT, central subfield retinal thickness; DRM, dose regimen modification; MEfRVO, macular edema following retinal vein occlusion; SD-OCT, spectral domain optical coherence tomography.

Results

- The aflibercept 8q8/3 and 8q8/5 groups met the primary efficacy endpoint, demonstrating non-inferior BCVA gains at Week 36 with fewer injections compared with the aflibercept 2q4 group, based on a 4-letter non-inferiority margin (**Figure 2**)
- Patients received a mean of 6.0 and 6.7 injections in the 8q8/3 and 8q8/5 groups compared with 8.5 injections in the 2q4 group through Week 36 (**Figure 2**)
- The early reduction in CRT from BL to Week 36 was comparable between the aflibercept 8 mg and aflibercept 2 mg treatment groups (**Figure 2**)
- When evaluated by BL BCVA letters and CRT subgroups, the mean change from BL in BCVA at Week 36 was similar across treatment groups within each subgroup (**Figure 3**)
- Most patients who received aflibercept 8 mg maintained a dosing interval of every 8 weeks (Q8) through Week 36 regardless of BL BCVA or BL CRT (**Figure 4**)

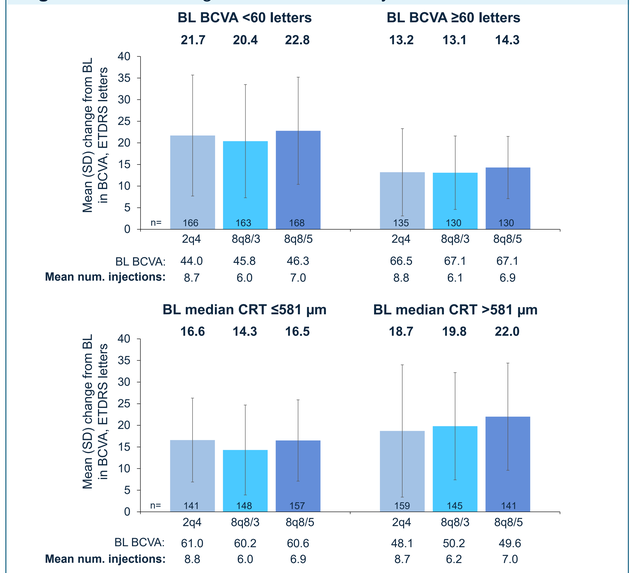
Results

Figure 2: LSM change from BL in BCVA and CRT in the overall group



Full analysis set. LSMs were generated using a mixed model for repeated measures with BL BCVA/CRT as a covariate. The fixed factors were treatment group (aflibercept 8q8/3, 8q8/5, 2q4), visit, and stratification variables (geographic region [Japan, Asia-Pacific, Europe, America], BL BCVA [<60 vs ≥60 letters], and RVO type [CRVO/HRVO vs BRVO]). The model also included terms for interactions between BL BCVA/CRT and visit, and between treatment and visit. [a]Observed values (censoring data post intercurrent event). [b]Missing endpoint values imputed using a multiple imputation procedure. Estimates based on a linear regression model, within the multiple imputation procedure, adjusted for BL BCVA, BL CRT, and stratification variables. 2q4, aflibercept 2 mg administered every 4 weeks; 8q8/3, aflibercept 8 mg administered every 8 weeks, after 3 initial monthly doses; 8q8/5, aflibercept 8 mg administered every 8 weeks, after 5 initial monthly doses; BCVA, best-corrected visual acuity; BL, baseline; BRVO, branch retinal vein occlusion; CRT, central subfield retinal thickness; CRVO, central retinal vein occlusion; ETDRS, Early Treatment Diabetic Retinopathy Study; HRVO, hemiretinal vein occlusion; LSM, least squares mean; RVO, retinal vein occlusion; W, Week.

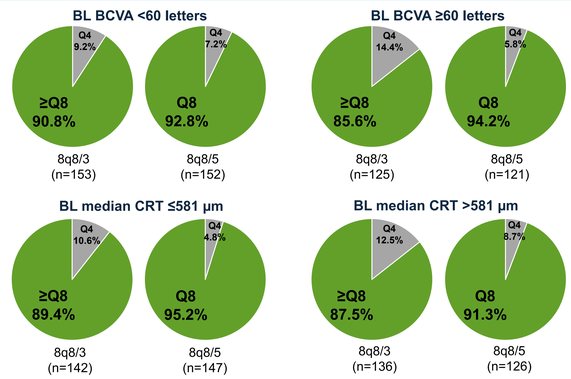
Figure 3: Mean change in BCVA at W36 by BL BCVA and BL CRT



Full analysis set (censoring data post intercurrent event). N values represent the number of patients at BL. 2q4, aflibercept 2 mg administered every 4 weeks; 8q8/3, aflibercept 8 mg administered every 8 weeks, after 3 initial monthly doses; 8q8/5, aflibercept 8 mg administered every 8 weeks, after 5 initial monthly doses; BCVA, best-corrected visual acuity; BL, baseline; CRT, central subfield retinal thickness; LSM, least squares mean; num, number; SD, standard deviation; W, Week.

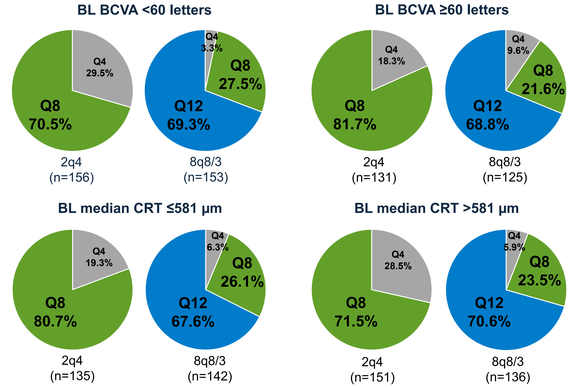
- Among patients eligible for interval extension, a higher proportion of those treated with aflibercept 8 mg achieved a dosing interval of ≥Q8 weeks compared with aflibercept 2 mg, regardless of BL BCVA or BL CRT (**Figure 5**)
- The safety profile of aflibercept 8 mg was consistent with the established safety profile of aflibercept 2 mg in patients with MEfRVO

Figure 4: Aflibercept dosing intervals maintained at W36[a,b]



Safety analysis set. Patients completing Week 36. [a]Per study design, all patients in the 2q4 group maintained a Q4 dosing interval through Week 36. [b]Per DRM criteria, dosing interval extension was not possible in the 8q8/5 group until Week 40. 2q4, aflibercept 2 mg administered every 4 weeks; 8q8/3, aflibercept 8 mg administered every 8 weeks, after 3 initial monthly doses; 8q8/5, aflibercept 8 mg administered every 8 weeks, after 5 initial monthly doses; BCVA, best-corrected visual acuity; BL, baseline; CRT, central subfield retinal thickness; DRM, dose regimen modification; Q4, every 4 weeks; Q8, every 8 weeks; W, Week.

Figure 5: Aflibercept last-assigned dosing intervals at W36[a,b]



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Reference: 1. Chang A, et al. *Eye (Lond)* (2026); https://doi.org/10.1038/s41433-026-04246-1.

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