Intravitreal Aflibercept Injection in Patients With Myopic Choroidal Neovascularization: The MYRROR Study

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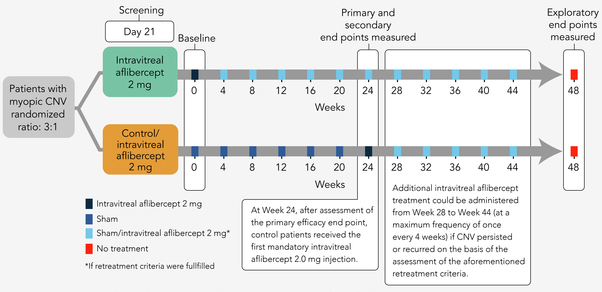
In the MYRROR study, the researchers evaluated intravitreal aflibercept 2 mg in adult patients with myopic choroidal neovascularization (CNV); eligible particpants had high myopia of ≤-6.0 diopters or axial length of ≥26.5 mm, with active subfoveal or juxtafoveal CNV on fluorescein angiography, and best-corrected visual acuity (BCVA) of 73-35 letters in the study eye at 4 meters. This study was conducted at 20 sites across 5 countries or regions of Asia, including Hong Kong, Japan, Republic of Korea, Singapore, and Taiwan.

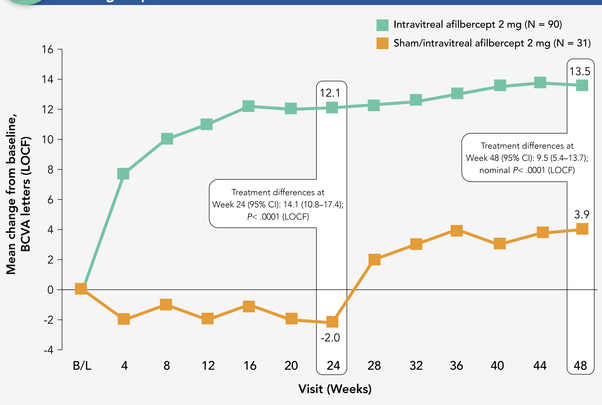
This was an international, phase 3, multicenter, randomized, double-masked, sham-controlled study.



Retreatment was allowed in patients who met 1 or more of the following criteria:
(1) reduction in visual acuity by 5 letters from the previous Early Treatment Diabetic Retinopathy Study examination;
(2) increase in central retinal thickness (CRT) >50 µm from the time of the previous examination, new or persistent cystic retinal changes, subretinal fluid, or pigment epithelial detachment, and new or persistent CNV or bleeding; or
(3) deemed necessary by the investigator based on their clinical impression or diagnostics performed in the context of standard medical care.

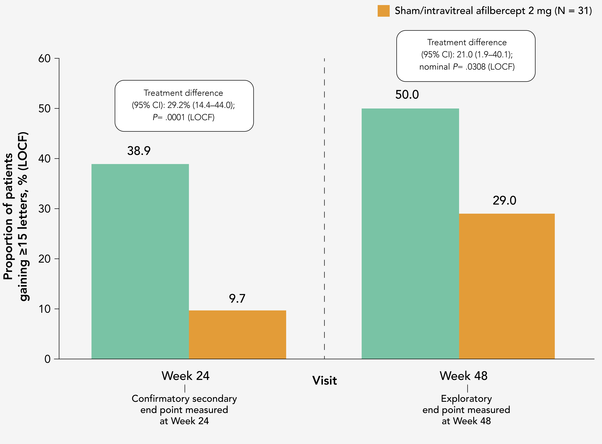
In the control group, patients were given 1 sham injection followed by repeated sham injections every 4 weeks through Week 20 regardless of whether retreatment criteria were fulfilled or not.

Patients in the intravitreal aflibercept group had a mean change in BCVA of +12.1 letters compared with a 2.0 letter loss in the sham group.



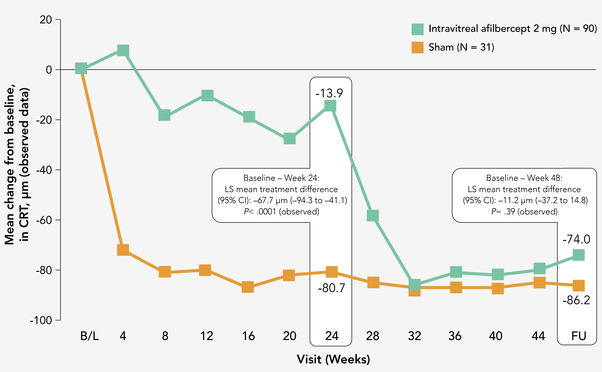
Primary end point: mean change in best-corrected visual acuity (BCVA) (last observation carried forward [LOCF]) from baseline to Week 48 – full analysis set. A confirmatory analysis of the primary end point was performed for Week 24. Treatment different is least squares (LS) mean change. CI = confidence interval.

A greater proportion of intravitreal aflibercept-treated patients gained 15 letters compared with sham-treated patients at Weeks 24 and 48.



Secondary end point: proportion of patients with >15 letters at Weeks 24 and 48 – full analysis set. Cochrane–Mantele–Haenszel adjusted difference.

At Week 24, intravitreal aflibercept-treated patients had a substantially larger mean decrease in CRT than sham-treated patients.



Mean change in central retinal thickness (CRT) from baseline to Week 24 and to Week 48 – full analysis set.
FU = follow-up.

Conclusions

Intravitreal aflibercept 2 mg was effective for treatment of myopic CNV with clinically important visual and anatomic benefits achieved with a limited number of injections given in the first 8 weeks of treatment. No new safety concerns occurred with treatment. Intravitreal aflibercept should be considered as a treatment option for myopic CNV.