Comparison of Ranibizumab With or Without Verteporfin Photodynamic Therapy for Polypoidal Choroidal Vasculopathy: The EVEREST II Randomized Clinical Trial

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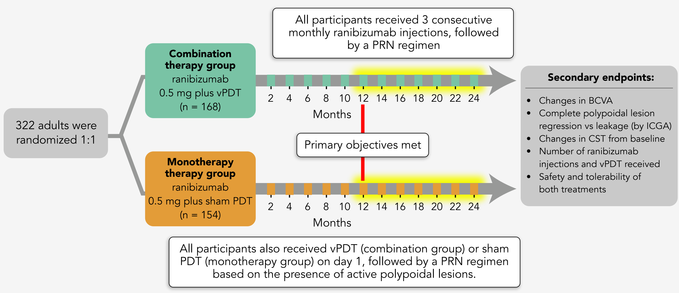
EVEREST II is a Phase 4, double-masked, multicenter, randomized clinical trial conducted among Asian participants with symptomatic polypoidal choroidal vasculopathy (PCV), confirmed using indocyanine green angiography (ICGA). At 12 months, combination treatment of ranibizumab with verteporfin photodynamic therapy (vPDT) resulted in greater best-corrected visual acuity (BCVA) improvement and higher rate of complete polypoidal lesion resolution with fewer ranibizumab injections than with ranibizumab monotherapy. This study reports on the 24-month treatment outcomes, investigating whether vision outcomes, polypoidal lesion regression and treatment burden were maintained.

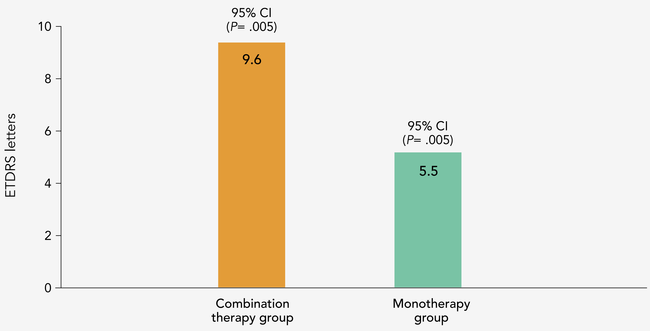
Participants were randomized into treatment arms of combined ranibizumab 0.5 mg plus prompt vPDT or ranibizumab 0.5 mg monotherapy.



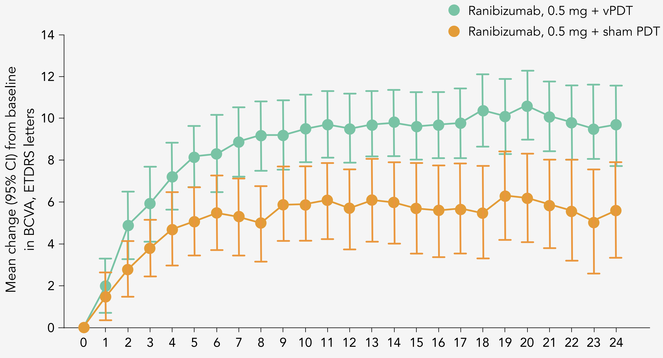
PRN = pro re nata; CST = central subfield thickness.

Combination therapy was superior to monotherapy in terms of BCVA gains at month 24, with BCVA gains achieved at month 12 being *maintained* to 24 months.

Adjusted mean BCVA gains at month 24



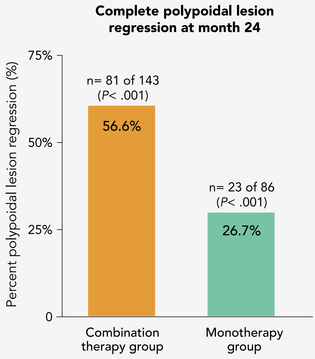
Mean BCVA gain up to month 24 in the combination and monotherapy groups.



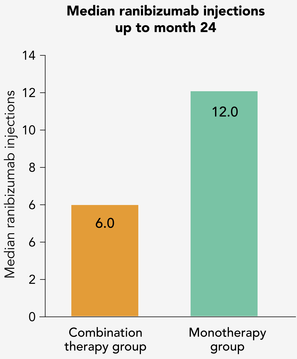
ETDRS = early treatment diabetic retinopathy study.

Combination therapy was also superior to monotherapy in terms of complete polypoidal lesion regression at month 24, with fewer ranibizumab injections received in the combination group.

Complete polypoidal lesion regression at month 24



Median ranibizumab injections up to month 24



Participants in the combination group received fewer ranibizumab injections (median, 6.0 [interquartile range (IQR), 4.0-11.0]) than the monotherapy group (median, 12.0 [IQR, 7.0-17.0]) up to month 24. The combination group required a median of 2.0 (IQR, 1.0-3.0) vPDT treatments for 24 months, with 75 of 168 participants (44.6%) requiring only one vPDT treatment.

Conclusions

The 24-month data findings confirm that ranibizumab therapy, given as monotherapy or in combination with vPDT, is efficacious and safe for treatment of PCV. Combination therapy with vPDT added to ranibizumab achieved superior BCVA gain, increased odds of complete polypoidal lesion regression, and fewer treatment episodes compared with ranibizumab monotherapy. These data suggest that ranibizumab plus prompt verteporfin photodynamic therapy is more effective compared with ranibizumab monotherapy for polypoidal choroidal vasculopathy with reduced treatment burden.