Baseline visual acuity strongly predicts visual acuity gain in patients with diabetic macular edema (DME) following anti-vascular endothelial growth factor treatment across trials

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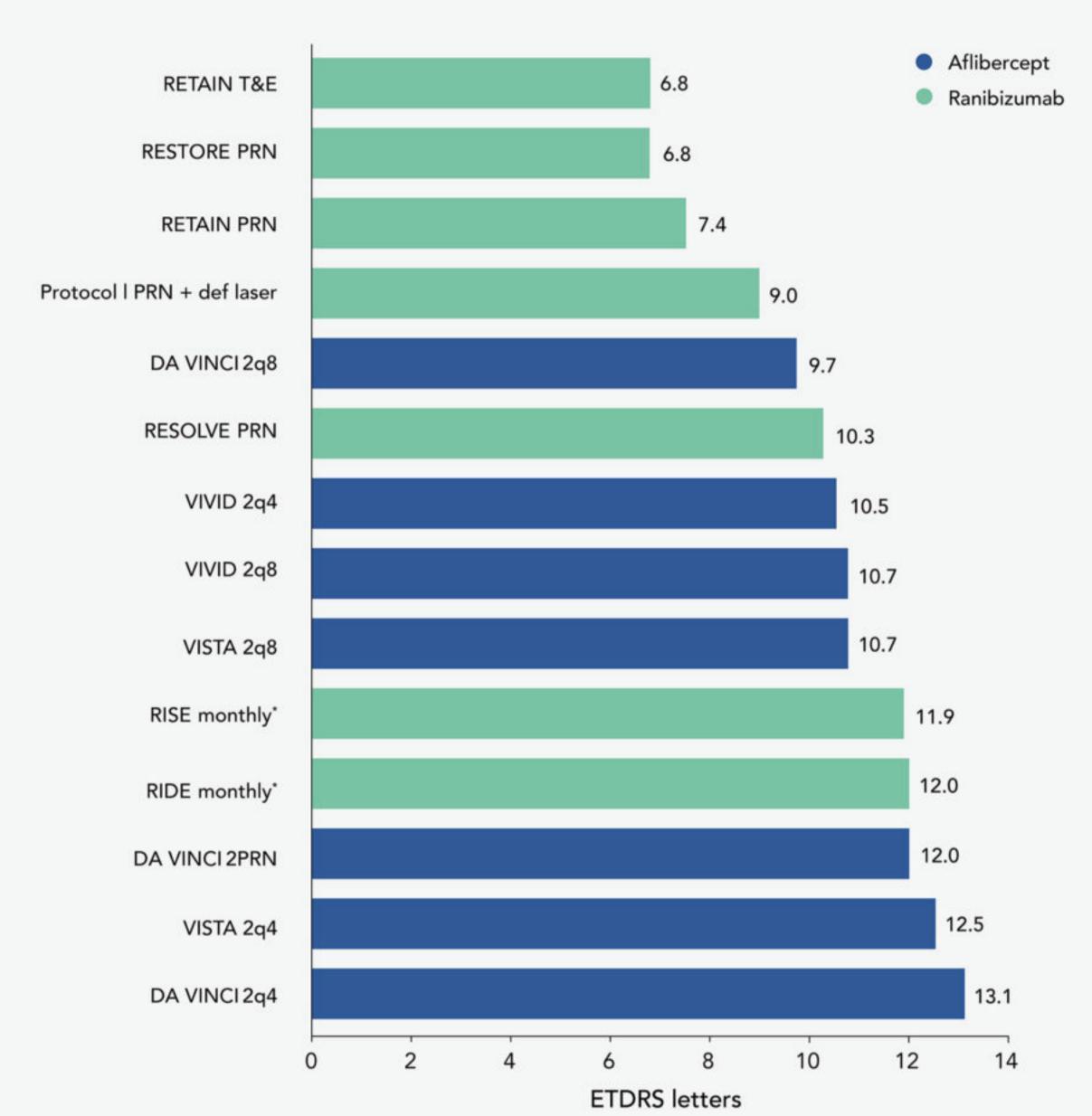
This study was designed to evaluate the correlation of baseline visual acuity (VA) with VA outcome in response to anti-vascular endothelial growth factor (VEGF) agents in diabetic macular edema (DME) using a retrospective analysis of nine clinical trials.

A correlation analysis was performed between mean baseline VA and VA gain at month 12 for 1,616 diabetic macular edema patients across nine randomized clinical trials (RESOLVE, RISE, RIDE, RESTORE, RETAIN, Protocol I, DA VINCI, VIVID, VISTA) with anti-VEGF treatment regimens ranibizumab 0.5 mg and aflibercept 2 mg.



Mean best corrected visual acuity (BCVA) gains after 12 months varied considerably across trials

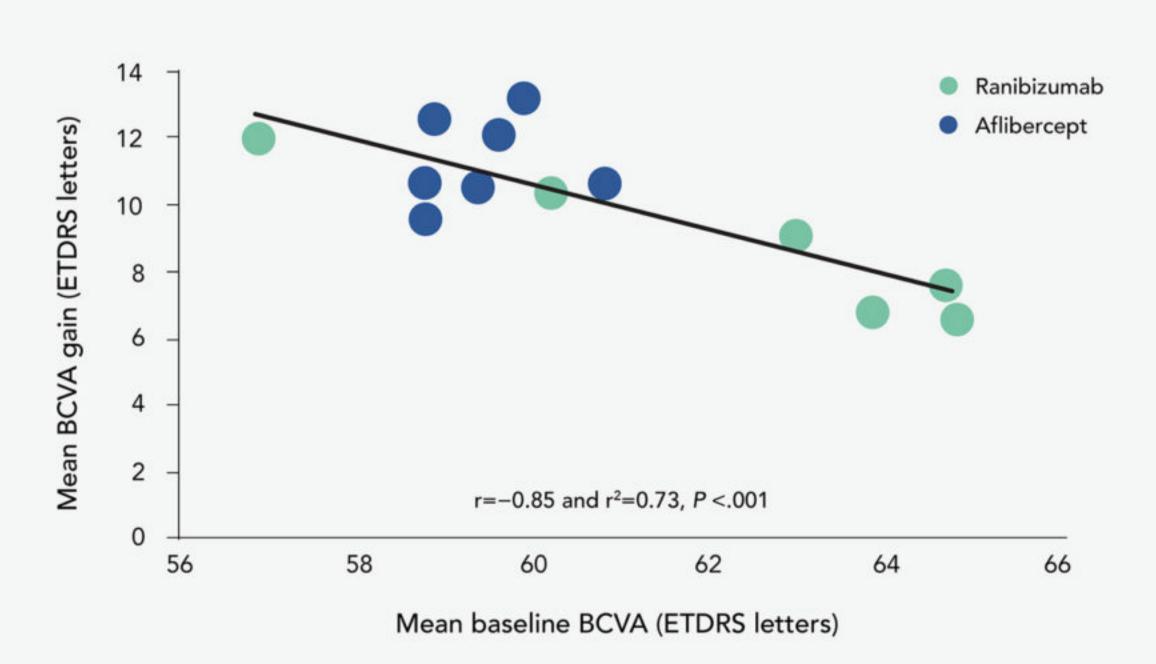
The Mean BCVA Gain Across Nine Clinical Trials of Anti-VEGF Agents in DME



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24-month data.
ETDRS, Early Treatment Diabetic Retinopathy Study; T&E, treat and extend; PRN, pro re nata; def laser, deferred laser; 2q8, 2 mg intravitreal aflibercept every 8 weeks; 2q4, 2 mg intravitreal aflibercept every 4 weeks;



Baseline BCVA and BCVA gain were subjected to regression analysis, which revealed a significant, strong negative correlation between the two parameters





Cross-trial comparisons based on changes in best-corrected visual acuity should be done cautiously and only after adjusting for best-corrected visual acuity at baseline. Furthermore, the total VA afforded by treatment appears to be subject to a plateau effect, which warrants further exploration.