

Aflibercept, Bevacizumab, or Ranibizumab for Diabetic Macular Edema

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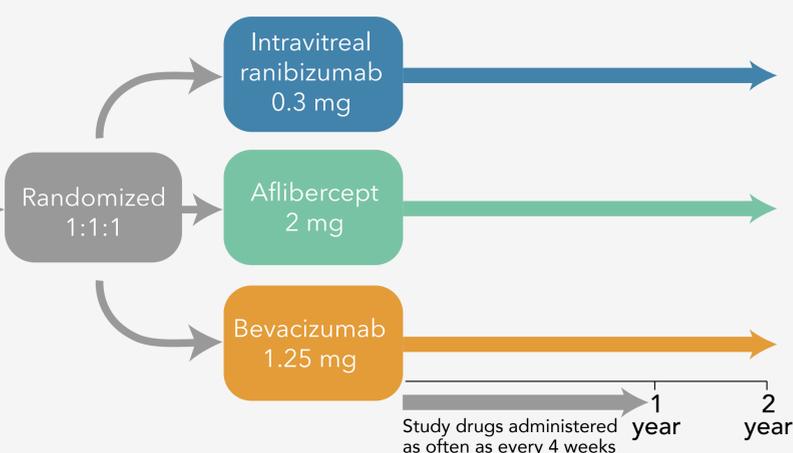
In this paper, the researchers studied the relative efficacy and safety of intravitreal aflibercept, bevacizumab, and ranibizumab in the treatment of diabetic macular edema (DME).

Across 89 clinical sites, 660 adults with diabetic macular edema involving the macular center were randomly assigned to receive intravitreal aflibercept at a dose of 2.0 mg (224 participants), bevacizumab at a dose of 1.25 mg (218 participants), or ranibizumab at a dose of 0.3 mg (218 participants).



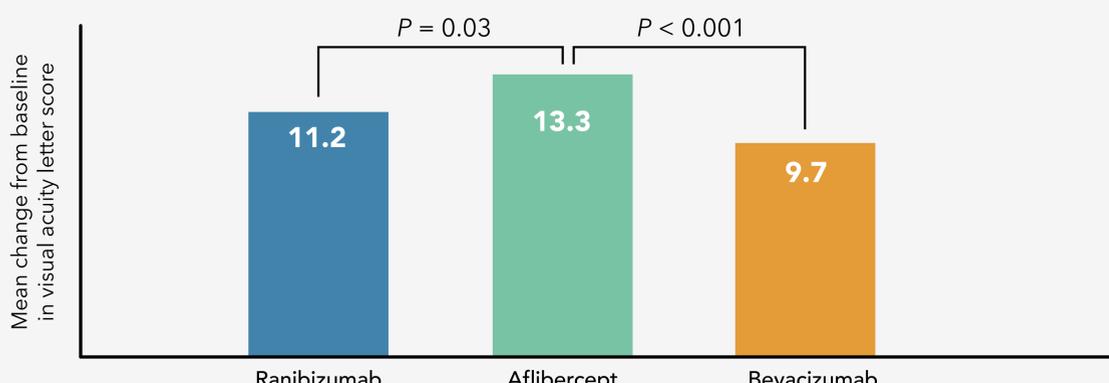
This was a prospective, 3-arm, double-masked, randomized noninferiority trial.

Adults who had type 1 or 2 diabetes, had at least 1 eye with a best-corrected visual acuity letter score (range, 0 to 100, with higher scores indicating better visual acuity) of 78 (approximate Snellen equivalent, 20/32) to 24 (approximate Snellen equivalent, 20/320) and center-involved diabetic macular edema on clinical examination and optical coherence tomography (OCT) according to protocol-defined thresholds, and had received no anti-vascular endothelial growth factor (VEGF) therapy treatment within the previous 12 months

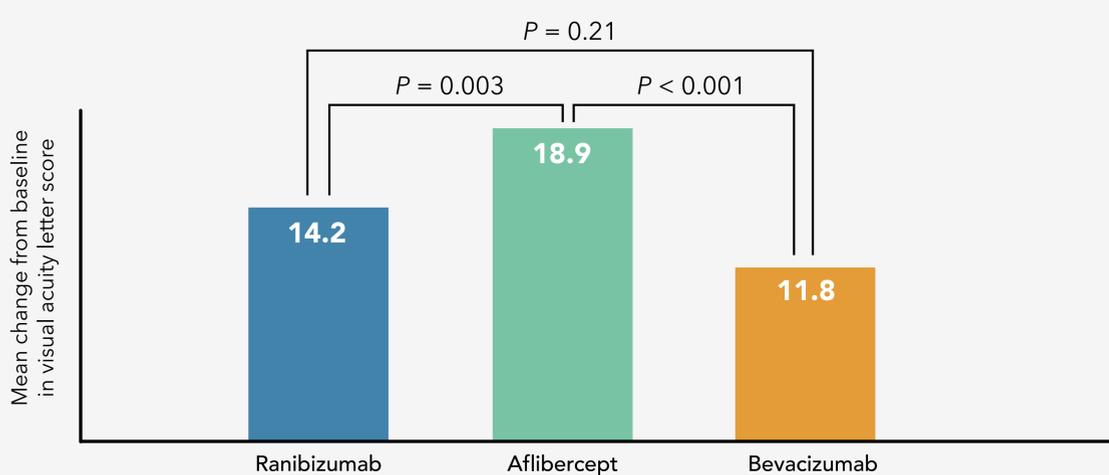


Intravitreal aflibercept, bevacizumab, or ranibizumab improved vision in eyes with center-involved diabetic macular edema, but the relative effect depended on baseline visual acuity.

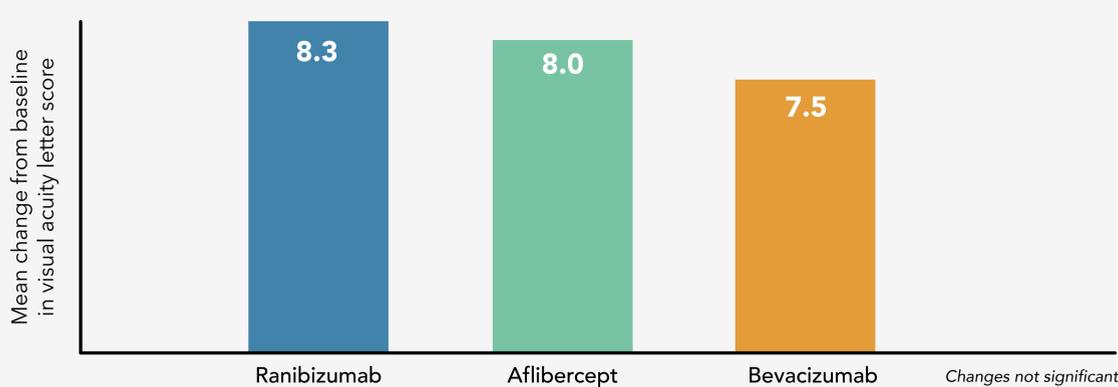
Mean change in visual acuity from baseline to 1 year



Mean change in visual acuity for patients with a baseline of approximately 20/50 or worse

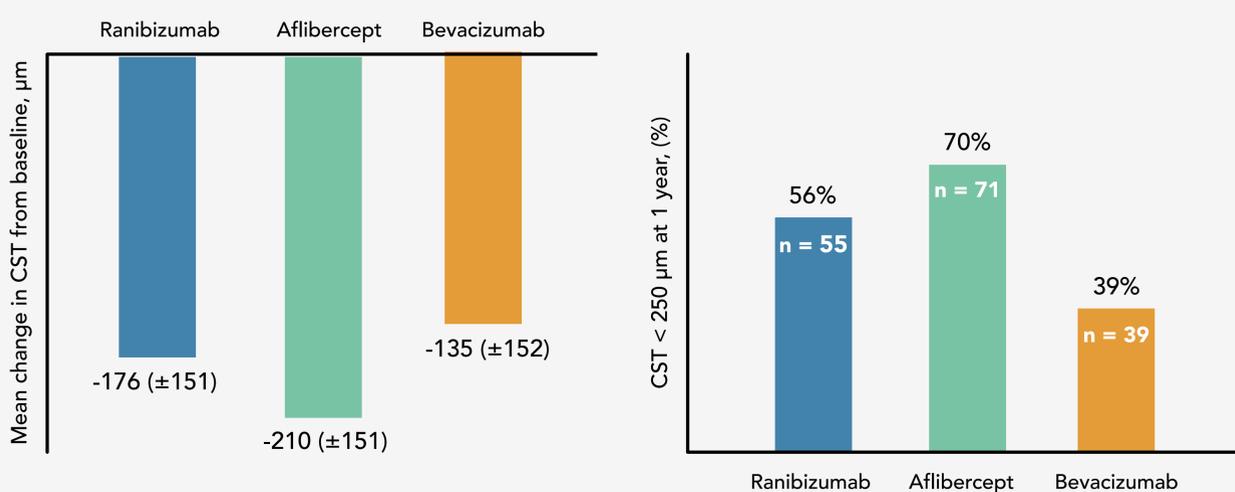


Mean change in visual acuity in patients with a baseline of approximately 20/32 to 20/40



The treatments decreased retinal thickening.

Central subfield thickness (CST) outcomes



Conclusions

Intravitreal aflibercept, bevacizumab, and ranibizumab were effective and relatively safe treatments for diabetic macular edema causing vision impairment. When initial visual acuity loss was mild, there was, on average, little difference in visual acuity at 1 year among the 3 agents. However, at worse levels of initial visual acuity, aflibercept was more effective at improving vision.