Comparison of ranibizumab and bevacizumab for neovascular age-related macular degeneration (AMD) according to LUCAS treat-and-extend protocol

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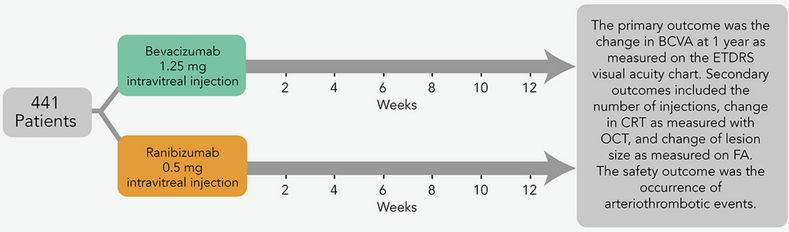
The objective of this trial was to compare the efficacy and safety of bevacizumab versus ranibizumab when administered according to a treat-and-extend protocol for the treatment of neovascular AMD.

This was a multicenter, randomized, noninferiority trial with a noninferiority limit of 5 letters

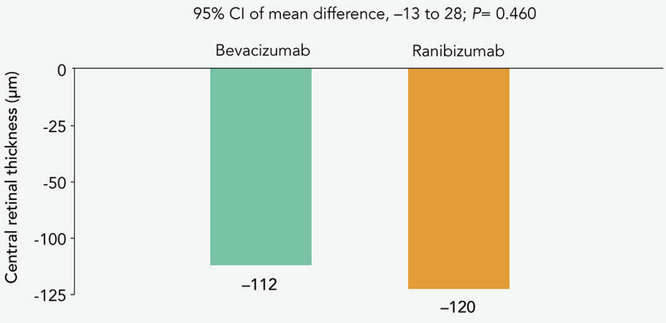
Monthly injections were given until inactive disease was achieved. The patients were then followed with a gradual extension of treatment interval by 2 weeks at a time up to a maximum of 12 weeks.

The patients were examined and injected every 4 weeks until no signs of active AMD were found, as determined by optical coherence tomography (OCT) and biomicroscopic fundus examinations.

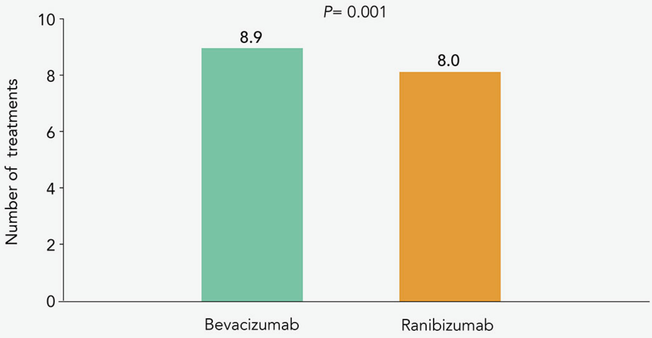


BCVA = best corrected visual acuity; CRT = central retinal thickness; ETDRS = Early Treatment Diabetic Retinopathy Study; FA = fluorescein angiography.

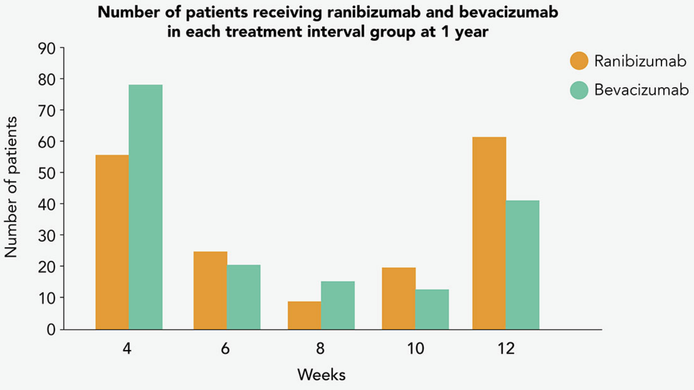
Mean central retinal thickness (CRT) was significantly reduced with ranibizumab and bevacizumab. However, there was no significant difference between the 2 treatment groups at 1 year.



There was a statistically significant difference in number of treatments needed



At 1 year, there were more patients receiving injections every 4 weeks in the bevacizumab group and more patients receiving injections with a 12-week interval in the ranibizumab group



Conclusions

At 1 year, there was a significantly larger portion of patients receiving ranibizumab compared with bevacizumab who demonstrated complete resolution of fluid. There was a slightly larger CRT in the bevacizumab group compared with the ranibizumab group, but this was not statistically significant.

Bevacizumab and ranibizumab had equivalent effects on visual acuity at 1 year when administered according to a treat-and-extend protocol. The visual acuity results at 1 year were comparable to those of other clinical trials with monthly treatment. The numbers of serious adverse events were small.