

Ranibizumab is not bevacizumab for retinal vein occlusions

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In their manuscript "Use of Bevacizumab for Macular Edema Secondary to Branch Retinal Vein Occlusion: A Systematic Review", the authors develop an exhaustive review of the currently available scientific evidence regarding the use of intravitreal bevacizumab (IVB) for the treatment of macular edema due to branch retinal vein occlusion (BRVO). They conclude that IVB may be effective in the long term for such cases [1].

We must remember that bevacizumab is not approved for intraocular use and therefore, as the authors clearly state, we are making an off-label use with IVB. Again, as it also occurred with exudative age-related macular degeneration, physicians must be aware of the differences between bevacizumab and ranibizumab. Ranibizumab is the only vascular endothelial growth factor (VEGF) inhibitor approved for intravitreal administration for cases of macular edema secondary to BRVO. The pivotal randomized clinical trial BRAVO showed great efficacy in terms of visual gain following monthly intravitreal injections of ranibizumab, and also evidenced the local and systemic safety of this therapy [2]. These results might not be directly extrapolated to bevacizumab, which is a different VEGF inhibitor with different molecular, pharmacodynamic, pharmacokinetic, and clinical peculiarities [3].

Rebound macular edema is the abnormal response to IVB consisting on an increase in macular thickening exceeding the initial edema. It may be documented in about 10% of cases, limiting the visual outcomes [4, 5]. This complication has not been reported with the long-term intravitreal use of ranibizumab, although no clear explanation for this difference has been stated. In the same way, early growth of macular epiretinal membranes [6] and hemorrhagic macular infarction [7] have also been published following IVB for BRVO. Therefore, there may be complications intrinsically related to IVB.

Actually, the elective therapy for patients with macular edema due to BRVO should be ranibizumab, the only intravitreal VEGF inhibitor approved for this indication, which has first-level evidence of efficacy and safety. On the other hand, the safety and efficacy of the widely off-label use of IVB is still somehow controversial.

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