

Ranibizumab for macular edema following CRVO/BRVO: BRAVO and CRUISE trials (2010)



Objective

To evaluate efficacy of anti-VEGF injection in patients with macular edema following branch or central retinal vein occlusion.

Methods

Design: RCT

Sample Size: N = 397/392

- Patients with macular edema following branch or central retinal vein occlusion

Treatment Groups:

- intraocular injections of 0.3 mg of ranibizumab (N = 132/130)
- intraocular injections of 0.5 mg of ranibizumab (N = 132/130)
- Control: sham injection (N = 132/130)

Outcome Measures:

- Best corrected visual acuity and central foveal thickness after 6 months

Results

Point 1: Improvement of affected eye VA was more rapid in the injection groups at 6 months

- At 6 months, both 0.3 and 0.5 mg injections improved BCVA by at least 15 letters for 55.2%/46.2% and 61.2%/47.7% respectively while the placebo arm was only 28.8%/16.9%
- At 6 months, a BCVA of 20/40 or better was achieved with the 0.3 and 0.5 mg injections in 67.9%/43.9% and 64.9%/46.9% of patients respectively, compared to only 41.7%/20.8% of patients receiving sham injections

Point 2: Macular edema drastically improved with Ranibizumab injection

- At 6 months, CFT had decreased by a mean of 337/434 μm (0.3 mg) and 345/452 μm (0.5 mg) in the ranibizumab groups and 158/168 μm in the sham group
- The median percent reduction in excess foveal thickness at month 6 was 97.0%/94.0% and 97.6%/97.3% in 0.3 mg and 0.5 mg groups and 27.9%/23.9% in the sham group
- The BRAVO trial saw more placebo patients (54.5%) receive rescue grid laser compared with the 0.3 mg (18.7%) and 0.5 mg (19.8%) ranibizumab groups

TLDR: Anti-VEGF injections were effective in treating macular edema following retinal vein occlusions leading to marked improvement in visual acuity while still maintaining a very low risk of complications .

BRAVO Investigators. Ranibizumab for macular edema following branch retinal vein occlusion: six-month primary end point results of a phase III study. Ophthalmology. 2010 Jun;117(6):1102-1112.e1. doi: 10.1016/j.ophtha.2010.02.021.

CRUISE Investigators. Ranibizumab for macular edema following central retinal vein occlusion: six-month primary end point results of a phase III study. Ophthalmology. 2010 Jun;117(6):1124-1133.e1. doi: 10.1016/j.ophtha.2010.02.022.