RANIBIZUMAB IN THE TREATMENT OF MACULAR EDEMA DUE TO RETINAL VEIN OCCLUSION: LONG TERM RESULTS AND PREDICTORS OF FUNCTIONAL OUTCOME

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Purpose: To assess long term results of intravitreal ranibizumab (IVR) in the treatment of macular edema due to branch (BRVO) and central retinal vein occlusion (CRVO). To identify predictive factors for functional improvement using multimodal retinal imaging. Methods: The clinical records of CRVO and BRVO patients treated with IVR for macular edema and with a follow-up 3years were retrospectively analyzed and a cross-sectional evaluation performed. Results: Sixteen eyes of sixteen consecutive patients were included in each group. Mean age was 67.7±14.4 years for CRVO and 67.4±10.9 years for BRVO. Mean follow-up was 48.9±10.6 and 45.3±8.9 months, with the mean time between diagnosis and first treatment being 5.3±5.3 and 6.5±9.2 months, for CRVO and BRVO respectively. The average total number of injections was 6.9 for CRVO and 6.1 for BRVO, but with decreasing need during follow-up. In CRVO, mean BCVA increased from 47.1±26.0 letters (L) to 55.4±23.6L, with a final mean gain of 8.3±14.5L (p=0.05). In BRVO, BCVA increased from 51.7±26.8L to 57.2±25.5L, with a final mean gain of 5.5±19.5L (p<0.05). In both CRVO and BRVO patients, final BCVA correlated with baseline BCVA and with the status of several SD-OCT features, namely the RPE line, ELM line and IS/OS line. Final subfoveal and submacular choroidal thickness showed a negative correlation with final BCVA in BRVO but not in CRVO patients. Conclusion: In our long-term follow-up, IVR injections proved safe and resulted in a significant improvement in functional and morphologic outcomes.