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Intravitreal conbercept for branch retinal vein occlusion induced macular edema: one initial injection versus three monthly injections.

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BACKGROUND: To compare the efficacy of one initial intravitreal injection of conbercept (IVC) versus three monthly IVCs in patients with macular edema (ME) after branch retinal vein occlusion (BRVO). Both options were followed by a pro re nata (PRN) retreatment regimen. METHODS: This study retrospectively investigated and followed 60 patients with acute ME secondary to BRVO for over a year. 30 subjects received one initial injection (1 + PRN group); while, 30 received three monthly injections (3 + PRN group). The functional and anatomic outcomes were assessed during each follow-up. RESULTS: The general characteristics of the 60 subjects were as follows: mean [SD] age, 57.43 [13.06] years; 33 [55%] female; 36 [60%] non-ischemic form. Both groups showed a stable gain in visual acuity (VA) with similar logMAR (mean ± SD) (1 + PRN group 0.308 ± 0.399, 3 + PRN group 0.34 ± 0.352) during the first 12 months. Additionally, both groups exhibited a significant reduction in central foveal thickness (CFT) with no statistically significant difference between them (1 + PRN group 222.1 μm ± 197.1 μm, 3 + PRN group 228.4 μm ± 200.2 μm). Both treatment groups had similar improvements in logMAR and anatomic outcomes over time. The stratified analysis showed that patients with the non-ischemic form and those with the ischemic form had similar improvements in VA (0.346 ± 0.366 VS 0.29 ± 0.39, P = 0.575) during the 12 months follow-ups. The number of injections was lower in the 1 + PRN group (4.0 ± 1.6) than in the 3 + PRN group (4.7 ± 1.3) (P = 0.068). No adverse effects or unexpected safety issues were reported in either group. CONCLUSIONS: Conbercept yielded significant improvements in VA and CFT among patients with BRVO induced ME, independent of their retinal ischemia status. The results showed that the 3 + PRN regimen do not lead to better functional outcomes or lower treatment needs in clinical practice as compared to the 1 + PRN regimen.

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