

CLINICAL OUTCOMES OF A TREAT-AND-EXTEND REGIMEN WITH INTRAVITREAL AFLIBERCEPT INJECTIONS IN PATIENTS WITH CHOROIDAL NEOVASCULARIZATION IN CHRONIC CENTRAL SEROUS CHORIORETINOPATHY

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Background. Long-standing central serous chorioretinopathy (CSC) can show subtle signs that may suggest the presence of a type 1 (occult) choroid neovascularisation such as an indistinct late leakage on fluorescein angiography or the presence of fibrin or lipid deposition, as well as the presence of pigment epithelium detachment (Spaide et al., 1996). CNV in CSC has been reported with the incidence ranging from 2% to 18% in previous studies (Fung et al., 2012; Liu et al., 2016). Intravitreal anti-vascular endothelial growth factor (anti-VEGF) is the most widely used treatment option for CSC related CNV (Schworm et al., 2020).

Purpose: To evaluate the 12-month results of intravitreal aflibercept injections using a treat-and-extend regimen in patients with choroidal neovascularization in chronic central serous chorioretinopathy.

Materials: Participants in this prospective, interventional, single-center clinical study included 22 patients (22 eyes) with type 1CNV in chronic CSC. Intravitreal injections 2 mg/0.05 mL of aflibercept were performed on treat-and-extend (T&E) regimen. The primary objective was decimal best-corrected visual acuity (BCVA). The secondary objectives were complete resolution of intra- and subretinal fluid (ISRF), change in central retinal thickness (CRT)), change in subfoveal choroidal thickness (SFCT) on optical coherence tomography, interval between the last injection and the final visit, number of intravitreal injections and safety.

Results: Mean decimal BCVA showed a significant increase from 0.44 ± 0.35 to 0.58 ± 0.3 ($P = 0.01$) comparing baseline and Month 12. Complete resolution of ISRF was observed in 73% (16 eyes) during observation period. Mean CRT and SFCT decreased significantly from 321 ± 90 to 259 ± 93 μm ($P = 0.004$) and 364 ± 186 to 287 ± 124 μm ($P = 0.0002$) respectively, comparing baseline and Month 12. During all follow-up period mean a number of intravitreal injections of aflibercept were 7.5 ± 1.4 . Mean interval between the last injection and the final visit was 9.0 ± 4.1 weeks. There were no systemic adverse events and ocular side effects.

Conclusion: T&E regimen of intravitreal aflibercept is effective and safe method of treating patients with type 1 CNV in chronic CSC during 12 months follow-up.