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Utility of Intravitreal Dexamethasone implant (Ozurdex) in anti-VEGF Resistant Diffuse Diabetic Macular Edema

Objectives: IVI Dexamethasone (Ozurdex) may be effective in the treatment of anti-VEGF refractory Diabetic Macular Edema (DME).

Methods: A retrospective chart review was conducted on 10 eyes from 9 patients with suboptimal response to prior anti-VEGF injections. Inclusion required at least one prior anti-VEGF injection and recorded central macular thickness (CMT) values. CMT was measured using Optovue Avanti SD-OCT, and Snellen visual acuity (VA) was converted to LogMAR. Pre- and post-Ozurdex CMT and LogMAR VA were compared using paired two-tailed t-tests.

Results: Of the 10 eyes, the average number of Anti-VEGF injections prior to Ozurdex was 5.6 injections (sd = 5.87, range = 1-17). The average pre-Ozurdex CMT was 528 μ m (sd = 173.8, range = 326-748). The average number of weeks between the first Ozurdex injection and the following appointment where CMT was measured was 19 weeks (sd = 21, range 4.6-62.9). The average Post-Ozurdex CMT was 361.4 μ m (sd = 76.1, range 219-490). The average change in CMT was -201 μ m with a standard deviation of 117 μ m. There was a significant difference ($p=.001$) when comparing pre-to-post Ozurdex CMT. Average LogMAR VA was 0.60 (sd = 0.35, range 0.1-1.4) before Ozurdex treatment vs. 0.58 (sd = 0.31, range 0.1-1.2) post-treatment. The VA difference was not statistically significant ($p=0.38$).

Discussion: With the p value being $< .05$, there is significant decrease in CMT levels with Ozurdex treatment in patients with previous Anti-VEGF injections. There was no significant change in visual acuities measured through Logmar changes.

Conclusions: Ozurdex was effective in reducing CMT in DME patients. VA did not benefit from Ozurdex, although the follow-up was short. Reduced treatment burden with Ozurdex further supports its use vs. anti-VEGF.