

**DEXAMETHASONE IMPLANT INSERTION (DEX-INSERTION) FOR RESISTANT CASES OF DIABETIC MACULAR OEDEMA (DME) OR RETINAL VEIN OCCLUSION (RVO): LONG-TERM TREATMENT OUTCOME AND SAFETY IN A RETROSPECTIVE CASE SERIES**

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**PURPOSE:** To present treatment outcomes following DEX-insertion in resistant cases with DME or macular oedema due to RVO.

**METHODS:** Retrospective study of patients' records since January 2016 with resistant macular oedema (after three anti-VEGF injections) that underwent DEX-insertion. Best-corrected visual acuity(BCVA) and OCT data(central retinal thickness-CRT, presence of intraretinal fluid-IRF, subretinal fluid-SRF, hyperreflective foci-HF) was retrieved from three visits: before initiation of DEX-insertion(visit-I), 4-6 months after 1st DEX-insertion(visit II), after last DEX-insertion(visit III). Number of DEX implants, follow-up time and side-effects were documented.

**RESULTS:** We included 26 eyes: CRVO(1 patient), BRVO(6 patients), DME(15 patients). Mean BCVA in DME: 0.31(visit I), 0.26(visit II), 0.32(visit III). Mean BCVA in RVO: 0.26 (visit I), 0.24(visit II), 0.23(visit III). Mean CRT in DME: 481 $\mu$ m, 458 $\mu$ m, 424 $\mu$ m (visits I,II,III respectively). Mean CRT in RVO: 582 $\mu$ m, 482 $\mu$ m, 222 $\mu$ m (visits I,II,III respectively). In DME cases: presence of SRF, IRF and HF in 19,2,15 cases(visit I) and in 18,0,13 cases(visit III) respectively. In RVO cases: presence of SRF, IRF and HF in 7,2,1 cases(visit I) and in 6,0,1 cases(visit III) respectively. Mean number of DEX implants administered: 3.7 in DME, 5.4 in RVO. Mean follow-up time was 3.3 years. BCVA remained stable in most patients. CRT decreased by an average of 57 $\mu$ m-in DME, 360 $\mu$ m-in RVO. Elevated IOP was recorded in one case.

**CONCLUSION:** In DME cases, there was no major treatment effect of DEX-insertion. In RVO cases, CRT was decreased without improvement in BCVA. DEX-insertion in resistant macular oedema is an effective and safe alternative to anti-VEGF treatment.