Medical Retina

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: 481μm, 458μm, 424μm (visits I, II, III respectively). Mean CRT in RVO: 582μm, 482μm, 222μm (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 II) 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 57μm in DME, 360μm 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.