EFFECT OF INTRAVITREAL BEVACIZUMAB AND RANIBIZUMAB ON CONTRALATERAL DIABETIC MACULAR EDEMA
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Purpose: To find out whether intravitreally administered bevacizumab and ranibizumab affect the contralateral untreated eyes of patients with bilateral diabetic macular edema (DME).

Methods: A retrospective review of patients with bilateral DME who were treated with intravitreal bevacizumab or ranibizumab was performed. All enrolled patients had intravitreal 1.25 mg bevacizumab or 0.5 mg ranibizumab in that eye with more severe macular edema. The BCVA assessment with ETDRS chart and central subfield macular thickness (CSMT) measurement using optical coherence tomography-3 before and 4 weeks after injections were recorded as outcome measures.

Results: The study included 55 eyes of 55 patients who received bevacizumab (Group 1) and 32 eyes of 32 patients who received ranibizumab (Group 2). The mean age of 55 patients (35 female, 20 male) in group 1 was 54.31 ± 12.67, and the mean age of 32 patients (20 female, 12 male) in group 2 was 56.01 ± 13.29 years. Both in group 1 and 2, the BCVA in the uninjected eye showed no statistically significant change after neither bevacizumab nor ranibizumab injection. In group 1, the CSMT in the uninjected eye was 428.96±110.55 μm at baseline and reduced to 384.80±121.33 μm at 4 weeks. The change in CSMT was found to be statistically significant. No statistically significant change was found in CSMT of uninjected eyes before and after ranibizumab treatment.

Conclusions: Compared with ranibizumab, intravitreal administration of bevacizumab resulted with more decrease in macular thickness in the untreated eye, in patients with bilateral DME.