POST-HOC ANALYSIS OF THE RESTORE STUDY IDENTIFIES DIABETIC MACULAR EDEMA PATIENTS WITH HIGH VISUAL ACUITY RESPONSE AND LOW NUMBER OF RANIBIZUMAB INJECTIONS

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Purpose: Data from patients with diabetic macular edema (DME) who achieved a high visual acuity (VA) response to ranibizumab treatment, but with fewer injections than the total RESTORE study population, were analyzed. Methods: Analysis included DME patients treated with ranibizumab 0.5 mg pro-re-nata with/without laser completing the 12-month study (n=206). Relevant baseline characteristics, best-corrected VA and number of ranibizumab injections in high VA gainers (gain of ≥10 ETDRS letters) relative to the total study population were analyzed. Results: Eighty-one (39\%) of 206 completers gained ≥10 letters. Mean (±SD) injection number in high VA gainers and total study population was 6.9 (±2.8) and 7.2 (±2.8), respectively, and mean (±SD) VA gain was 15.1 (±4.9) and 7.5 (±8.4) letters, respectively. Of the 81 high VA gainers, 49 (24\% of completers) required 5.1 (±1.8) injections for a VA gain of 15.3 (±5.2) letters. Furthermore, 32 of these 49 (16\% of completers) required 4.0 (±1.1) injections to achieve a similar gain of 15.8 (±5.4) letters. Baseline characteristics were similar across the high VA response subgroups and total population. Conclusions: Almost one-quarter of patients achieved a high VA response while requiring an average of just 4-5 ranibizumab injections in the first year of treatment. This observation supports an individualized therapeutic approach in the management of DME patients who often have comorbidities. In such patients, optimal but not excessive anti-vascular endothelial growth factor treatment is required. The baseline characteristics evaluated do not predict number of injections required for high VA response; further analyses are ongoing.