

Efficacy of intravitreal bevacizumab (avastin) in diabetic macular edema

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Advantages:

Intravitreal bevacizumab in patients with diabetic macular edema allowed significant visual improvement in patients with diabetic macular edema in short term after injection.

Methods:

26 patients (34 eyes), (22 females, 4 males), mean age 62 y/o, with diabetic macular edema were consecutively enrolled in the noncomparative prospective case series. The patients were included in the study independently from the diabetes type, visual acuity (VA), retinal thickness and kind of previous treatment. Complete eye examination included VA, slit lamp and eye fundus examination, intraocular pressure measurement, retinal thickness measurement by means of optical coherence tomography (OCT), fluorescein angiography and eye fundus photography. 12 patients were treated before as follows: 7 patients (26,9 %) received laser treatment, 3 (11,5 %) underwent vitrectomy without ILM peeling, 2 (7,7 %) received intravitreal triamcinolone injection without any visual improvement. All patients enrolled in our study received intravitreal bevacizumab injection (1.25 mg).

Effectiveness / Safety:

Main outcome measures were the following: changes in VA and central macular thickness (CMT). Mean CMT before intravitreal bevacizumab injection was 454 microns. One week after injection mean CMT decreased to 283 microns and to 270 microns after one month. Mean VA before treatment was 0.14 and improved to 0.3 one week after injection. This improvement was maintained throughout the 3, 6 and 12 month follow-up in 22 patients. In 4 cases repeated bevacizumab injection was needed because of VA decrease after 10 months in 2 cases, 3 months in one and 2 months in one case. In 4 cases unilateral intravitreal administration of bevacizumab had an effect on the untreated fellow eye with the VA improvement and CMT decrease confirmed by OCT data. Intravitreal bevacizumab was well tolerated in all cases. No ocular or systemic adverse events were observed.

Take home message:

Intravitreal bevacizumab in patients with DME can be an effective and safe procedure as it leads to visual function improvement and reduction of CMT.