

Role of intravitreal bevacizumab (Avastin) in the treatment of clinically significant macular edema

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Abstract:

Purpose: To determine efficacy of single intravitreal injection of bevacizumab (Avastin) for treatment of clinically significant macular edema (CSME).

Participants and methods: A quasi experimental month study was carried out at the retina clinic of Al Shifa Trust Eye Hospital, Rawalpindi from 1st January 2010 to 31st December 2010. A total 107 patients with CSME were included in this study. All patients were evaluated for visual acuity, anterior and posterior segment while central macular thickness was documented through optical coherence tomography. A single injection of bevacizumab was administered in all the patients. Outcome measures (improvement in BCVA and decrease in central retinal thickness) were evaluated at 2weeks, 1 month and 2 months.

Results: All except one patient completed 2 months of follow-up. At baseline mean BCVA \pm SD was 0.967591 ± 0.3705 logMAR of Snellen letters, which significantly improved to 0.808525 ± 0.3260 at 2 weeks, 0.65581 ± 0.36078 at 1 month, and 0.6319 ± 0.3900 at 2 months (for each, p-value < 0.05). The mean central retinal thickness \pm SD was $502.60 \pm 81.622 \mu\text{m}$ at baseline and significantly decreased to $307.69 \pm 82.306 \mu\text{m}$ at 2 weeks, $235.75 \pm 63.162 \mu\text{m}$ at 1 month, and $237.58 \pm 64.230 \mu\text{m}$ at 2 months (for each, p-value < 0.05).

Conclusion: Primary single intravitreal bevacizumab injection in a concentration of 1.25mg / 0.05ml in patients with CSME resulted in significant improvement in BCVA and central macular thickness as early as 2 weeks after injection, and this beneficial effect persisted for up to 2 months. *Al-Shifa Journal of Ophthalmology 2011; 7(2): 88-93 © Al-Shifa Trust Eye Hospital, Rawalpindi, Pakistan.*
