Comparison of efficacy of Ranibizumab versus Bevacizumab in neovascular Age Related Macular Degeneration

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Abstract

Objectives: To compare the efficacy of two anti-vascular endothelial growth factor (VEGF) agents in sub retinal neovascular membrane (SRNVM) due to age related macular degeneration (AMD).

Study Design: Comparative, non-randomized interventional study.

Subjects and Methods: The study was conducted at Al-Shifa Trust Eye Hospital in which 861 eyes of 794 patients were included. Patients in each group got 3 intravitreal anti-VEGF injections and were followed up for six months. Intravitreal dose used for Bevacizumab was 1.25mg and Ranibizumab 0.5mg every 4 weeks. At each follow up, visual acuity and macular thickness on Optical Coherence Tomography (OCT) were analysed.

Results: Total 790 patients of Bevacizumab group had the mean baseline VA of 0.9 log MAR and mean macular OCT thickness of 526μm. At the end of treatment, their mean BCVA AND OCT macular thickness was 0.69 log MAR and 261 μm respectively, showing statistically significant improvement. 71 patients of Ranibizumab group had mean baseline VA of 0.7 in log MAR chart and their mean OCT thickness of macula was 416 μm. They showed significant improvement in their mean VA and OCT thickness to 20/70 (0.55 log MAR) and 219+/-49μm respectively with improvement of 29.62%, and 89.95% respectively which was statistically significant. However, there was no significant difference between two groups in terms of final VA and side effects.

Conclusion: Both Ranibizumab and Bevacizumab are equally effective in neovascular AMD. Considering the cost, bevacizumab may be the drug of choice as no serious adverse events were found. *Al-Shifa Journal of Ophthalmology 2012; 8(2): 75-83 © Al-Shifa Trust Eye Hospital, Rawalpindi, Pakistan.*