

A study of pre- and post-treatment Optical Coherence Tomography & Multifocal Electroretinography after intravitreal injection of Bevacizumab in patients of macular edema in Branch retinal vein occlusion.

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Abstract:

Purpose: To study the pre and post treatment optical coherence tomography (OCT) and Multi focal electroretinography (mfERG) with macular edema in branch retinal vein occlusion (BRVO) and correlation between central foveal thickness (CFT) on OCT and mfERG. **Methods:** Prospective study of 30 eyes of 30 patients with BRVO - diagnosed and graded by clinical methods was conducted in a tertiary care centre. Patients were treated with intravitreal injection Bevacizumab. At presentation and subsequent follow up patients underwent OCT & mfERG. Central foveal thickness on OCT and P1 implicit time and amplitude were compared. **Results:** The mean age group of 30 patients enrolled in the study was 46 to 55years and it included 16 females (53.33%) and 14 males (46.66%). BRVO more commonly affected the upper temporal quadrant. Significant decrease in CFT on OCT and significant improvement in central P1 implicit time and amplitude after treatment was observed. Final outcome as macular edema decreased brought about an improvement in vision. The study suggested a significant correlation between central foveal thickness and mfERG parameters. **Conclusion:** These newer diagnostic modalities used in viewing the prognosis of patients undergoing treatment with intravitreal injection of anti-vascular endothelial growth factor (VEGF) are useful in prognosticating the disease process and are in collaboration with each other.

Keywords: Bevacizumab, Branch retinal vein occlusion, Central foveal thickness, mfERG.

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