

## Intravitreal bevacizumab versus combination of intravitreal bevacizumab and laser photocoagulation for the treatment of diabetic macular edema

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**Purpose:** To assess the efficacy of intra-vitreous injection of bevacizumab versus combination therapy of intra-vitreous injection bevacizumab and laser photocoagulation in the treatment of diabetic macular oedema.

**Methods:** This longitudinal type of observational study was conducted over 60 (sixty) eyes of sixty diagnosed patient of diabetic macular oedema. Selected patients underwent detailed ophthalmic and systemic examination as well as relevant investigation. They were grouped into group A (who were treated by intra-vitreous injection of bevacizumab) and group B (who were treated by combination therapy of intra-vitreous injection bevacizumab and laser photocoagulation). They were followed up after 1 month, 3 months and 6 months after beginning of the study. Best corrected visual acuity (BCVA) by Log MAR unit and Central Macular Thickness (CMT) in microns by OCT were assessed in every visits. All the baseline data and outcome data were recorded in a pre-designed data collection sheet. Mean change in BCVA and CMT were compared with baseline within the group and also between the groups in each follow-up and was analyzed statistically by unpaired 't' test. 'p' value <.05 was taken as significant.

**Results:** Mean age of the study subjects of group A were 52.53±12.11 (SD) years and group B were 52.10±11.45 (SD) years (p=0.43). Among the study subjects 16 were male and 14 were female in group A, in group B 17 were male and 13 female in number (p=.07). Mean baseline BCVA were 0.77±0.16 (SD) Log MAR unit in group A and 0.74±0.11 (SD) Log MAR unit in group B, it was 0.57±0.22 (SD), 0.56±0.20(SD) and 0.57±0.28 (SD) in group A and 0.56±0.15(SD), 0.48±0.13(SD) and 0.39±0.13(SD) in group B during 1st, 2nd and 3rd follow-up respectively. Statistical analysis comparison of mean BCVA between two groups at final follow-up was significant (p=0.002). Mean baseline CMT were 434.83±78.38 (SD) micron (μ) in group A and 430.47±65.22 (SD) micron (μ) in group B, it was 397.57±73.22 (SD), 353.56±89.20(SD) and 347.83±114.40 (SD) in group A and 363.56±69.15(SD), 289.48±54.13(SD) and 274.70±47.50(SD) in group B during 1st, 2nd and 3rd follow-up respectively. Statistical analysis comparison of mean CMT between two groups at final follow-up was significant (p=0.002).

**Conclusion:** Assessment of the the study finding shows that there was significant improvement in mean BCVA and mean CMT changes within the groups in almost every follow-up. Difference in mean BCVA and mean CMT was significant statistically between two groups during final follow-up at the end of 6 months.

**Key words:** Diabetic macular oedema, Bevacizumab, Laser photocoagulation.

## Publication:

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## Biography

Shally Biswas is working as a Senior Assistant Surgeon at Chittagong Eye Infirmary & Training Complex Pahartali in Bangladesh. She worked as Medical Officer at CMCH from July 2009 to 31st December, 2009 and at USTC from January, 2010 to June 2010 and at CMCH from May, 2019 to September, 2019. She was an Assistant Surgeon in Ministry of Health from July 2010 to April, 2019. She worked as faculty member in residency training program. She had Working Experience in Ophthalmology for 11 years 8 months and Publishes many articles in reputed Journals.