Serum HbA1c level and Central Macular Thickness in Diabetic Cystoid Macular Edema

Jitendra Kumar, Amit Verma, Shweta Dwivedi, Arun Kumar Pathak
Department of Ophthalmology, Maharani Laxmi Bai Medical College, Jhansi - 284001 (Uttar Pradesh)

ABSTRACT

A randomized, prospective, interventional comparative study was conducted in 60 eyes of 30 diabetic patients with diabetic cystoid macular edema for 16 months. The eyes were categorized as Group A consisting 30 eyes of 15 patients and group B consisting 30 eyes of 15 patients. The purpose of the study was to compare the effect of serum HbA1c level in diabetic cystoid macular edema patients with and without serous macular detachment. Patients of group A were including patients had diabetic cystoid macular edema in both eyes but no serous macular detachment and in group B patients had diabetic cystoid macular edema in both eyes with serous macular detachment. The outcomes were different from baseline to 3 month, 6 month and 9 month follow up in mean HbA1c level and mean central macular thickness(CMT). Mean baseline serum HbA1c levels in percentage (%) were 7.91(SD 1.31) in group A and 11.42(SD 1.91) in group B. At 3 month of follow up the mean baseline HbA1c level in group A is 7.56(SD 1.04) and in group B is 10.32(SD 1.44). At 6 months, group A is 7.26(SD 0.97) and in group B is 9.44(SD 1.36) and After 9 months of follow up group A is 6.78(SD 0.75) and in group B is 8.32(SD 1.15). Mean baseline central macular thickness (CMT) in micron were 688.13(SD 50.05) in group A and in group B mean central macular thickness is 681.33(SD 59.76). After At 3 months the mean central macular thickness(CMT) of group A is 446.73(SD 80.85) and in group B is 568.86(SD 52.34). After 6 months, group A CMT is 375.93(SD 64.68) and group B CMT is 486.66(SD 60.71) . After 9 months of follow up ,in group A the CMT is 289.00(SD 70.56) and in group B is 376.60(SD 49.18). The significant reduction in mean serum/ HbA1c level also shows the reduction in the mean CMT.