

A Cross-sectional Study on Association between Serum 25(OH) VitaminD level & Gender frequency with Diabetic Retinopathy among patients of Type 2 Diabetes Mellitus in a Tertiary Care Hospital of Kolkata; West Bengal ;India

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Abstract:

Background: Diabetes Mellitus (DM) is a large public health problem which is increasing globally as well as in India affecting all sex groups day by day. One of the dreaded micro-vascular complications of Diabetes Mellitus is Diabetic retinopathy. In parallel to increase in prevalence of Diabetes Mellitus & its complications, several reports of VitaminD deficiency have been documented in India. **Objective:** To establish an association between deficiency of 25(OH)VitaminD & gender frequency and presence & severity of Diabetic retinopathy.

Materials & Methods: The present study was conducted in a tertiary care teaching hospital in Kolkata approved by the institutional Research & Ethics Committee. In this study 107 Type 2 diabetic patients of 40 yrs of age & above including both male and female patients were taken. Direct Ophthalmoscopy was done for examination of retina & blood was taken for FBS, PPBS, HbA1C and serum 25(OH)VitaminD level estimation. **Results & Conclusion:** Results were analyzed by using SPSS version 20. Chi square test, Fischer Exact test, Man Whitney U & Kruskal Wallis test were used in statistical analysis as appropriate. Results showed that there was significant association between deficient 25(OH) VitaminD level and presence & severity of Diabetic retinopathy. There was also male preponderance for development & severity of Diabetic retinopathy.

Keywords: Diabetic Retinopathy (DR), Type 2 Diabetes Mellitus (Type 2 DM), Non Proliferative Diabetic Retinopathy (NPDR), Proliferative Diabetic Retinopathy (PDR), Neo-vascularisation on Disc(NVD), Neo-vascularisation Elsewhere(NVE); Peroxisome Proliferator Activated Receptor- γ (PPAR- γ)