ABSTRACT

Title: “A CLINICAL STUDY OF VITAMIN D SUPPLEMENTATION IN DIABETIC RETINOPATHY PATIENTS WITH TYPE 2 DIABETES MELLITUS”

AIM: The aim was to evaluate whether supplementation of Vitamin D can delay the progression, the association of serum 25 hydroxy Vitamin D with the level of retinopathy, and whether it can be used as a predictor of the severity of retinopathy.

MATERIALS AND METHODS: 40 patients with type 2 diabetes and diabetic retinopathy were included in this prospective, interventional study. 20 patients received daily oral supplementation of 2000 IU of Vitamin D for 6 months duration, constituting the case arm, while the remaining 20 patients served as the control arm.

RESULTS: The mean serum 25 hydroxy vitamin D at baseline were 27.573 ng/ml, 22.518 ng/ml, 17.557 ng/ml and 19.945 ng/ml in patients with moderate, severe, very severe NPDR and early PDR respectively. At 1 month follow up, none of the eyes showed progression. At 3 months, only 8 control eyes with early PDR had progressed to high risk PDR. At 6 months, eyes with severe, very severe NPDR and early PDR were found to have progressed in both groups, this being greater in controls than cases. No additional improvement in BCVA was obtained with vitamin D supplementation.

CONCLUSION: We can conclude that oral supplementation of Vitamin D in addition to the recommended treatment with photocoagulation, delays the progression of severe, very severe and early PDR. There is an inverse relation between the level of Serum 25 hydroxy vitamin D and the severity and low levels may be used to predict severity of diabetic retinopathy.

KEY WORDS: Diabetic retinopathy, 25 hydroxy Vitamin D, Vitamin D supplementation, type 2 diabetes mellitus