IS THERE A RELATIONSHIP BETWEEN BODY MASS INDEX AND DIABETIC RETINOPATHY?

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Introduction: Type 2 diabetes mellitus is a common condition and a serious global health problem. Many people with diabetes develop some degree of Diabetic Retinopathy (DR). On the other hand obesity has become an epidemic in all over the world. This paper examines the association between diabetic retinopathy and body mass index in those patients with diabetes mellitus. Method and Material: This was a hospital-based, cross-sectional study on 518 diabetic patients. Their medical history and the laboratory data were collected. All the patients received examination of diabetic retinopathy by professional ophthalmologist. Based on their optic fundi findings, they were classified into five groups: No retinopathy, Mild Non-proliferative Diabetic Retinopathy (NPDR), Moderate NPDR, Severe NPDR, Proliferative diabetic retinopathy (PDR). Result: Totally 518 patients were included in this study. The prevalence of NPDR was 24.5% and the prevalence of PDR was 16.5%. In addition 9.7% of patients have Clinically Significant Macular Edema. Our data revealed a significant relationship between PDR and age at diagnose (p=0.000). Whilst a significantly positive correlation with age (P = 0.001), diabetes duration (P = 0.000), albuminuria (P = 0.000), HbA1c (P = 0.000), hypertension (P= 0.0.009), systolic blood pressure (P = 0.034) and diastolic blood pressure (P = 0.035) with retinopathy was observed. However, there were no significant interactions between Body Mass Index (BMI) for any DR. Conclusion: In this cross sectional study we conclude that BMI had inverse relationship with DR (p-value= 0.009 and correlation coefficient=−0.467) when BMI considered as a continuous variable.