

Prevalence and Risk Factors of Diabetic Retinopathy within Palestinian Patients in Northern West bank

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Abstract

Risk factors associated with diabetes mellitus (DM) have been widely researched worldwide, but the determinants of these factors among diabetic retinopathy (DR) in Palestine are currently unclear. We aimed to assess prevalence of DR among DM in Northern West Bank and identify factors associated with DR natural history. DM patients (n=300, age > 18 years) from a main diabetic center covering all northern provinces of Palestine were enrolled to this cross-sectional research. Demographic information including age, sex and duration of DM were obtained. Moreover HbA1C, BMI, hypertension (HTN), controlled DM, smoking and total cholesterol level were assessed. Potential correlations between these factors and DR diagnosed by ophthalmologist were evaluated using different tests on SPSS version 22. Prevalence of DR among our population was 30%; 47.8% of these patients showed mild nonproliferative DR (NPDR), 23.3% moderate NPDR, 16.7% exhibited severe NPDR while 12.2% were with proliferative DR (PDR). Bivariate logistic regression analysis showed age (p=0.007), HTN (p=0.022), uncontrolled DM (p=0.025) and duration of DM (<0.001) were mostly associated with DR while multivariate logistic regression showed duration of DM as the major and solely risk factor for prevalence of DR (p<0.0001) and were positively correlated with severities of NPDR and being a strong predictor in the PDR (P=0.001). We identified several important risk factors that affect DR and may be used to develop effective strategies for metabolic disease prevention among populations in Palestine. Furthermore, our data suggest a necessity to control sugar serum levels and HTN.