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Prevalence of Diabetic Retinopathy and its Associated Factors among Diabetic Patients in Primary Care Clinics, Kuantan, Pahang

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Abstract

Introduction: Diabetic retinopathy (DR) is one of the commonest complications of diabetes mellitus. This study was to determine the prevalence of DR and its association with chronic kidney disease (CKD), high HbA1c and dyslipidemia among diabetic patients in government primary care clinics. **Materials and Methods:** A cross sectional study was carried out. The respondents were selected from diabetic registry at two government primary care clinics in Kuantan, Pahang via stratified random sampling method during the study period from May 2010 to April 2011. The respondents were interviewed and assessed clinically using a structured questionnaire. Retinal examination was performed by accredited staff using non-mydratic retinal imaging and DR was classified according to the International Clinical Diabetic Retinopathy Disease Severity Scale. **Results:** Out of 400 respondents, 58.8% were diagnosed with diabetes less than 5 years and 51.0% had uncontrolled blood pressure (>130/80 mmHg). The prevalence of DR and maculopathy were 33.5% and of 17.8% respectively. Most of these patients (22.3%) had mild non-proliferative DR. DR patients had higher percentages CKD (17.9% vs. 6.8%; p<0.001) and a higher mean of HbA1C (8.69 vs. 8.11; p=0.015) compared to non-DR patients. The study revealed that DR was independently associated with CKD {OR: 3.46, 95% CI (1.76, 6.80)} and high HbA1c {OR: 1.12, 95% CI (1.02, 1.23)}. Those with dyslipidemia however, has 39% less risk of DR {OR: 0.61, 95% CI (0.39, 0.94)}. **Conclusion:** This study showed that diabetic patients with CKD and high HbA1c have greater risks to develop DR but has protective risk with dyslipidemia.

Keywords

Author Keywords: diabetic retinopathy (DR); non-mydratic retinal camera; primary care clinic

KeyWords Plus: RISK-FACTORS; PHOTOGRAPHY


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