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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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Diabetic retinopathy is the commonest complications of diabetes mellitus and is the earliest manifestation of the microvasuclar complications of diabetes mellitus. The objectives of this study were to determine the prevalence of diabetic retinopathy and its associated factors among diabetic patients in government primary care clinics using non-mydratic retinal imaging. A cross sectional study was carried out. The respondents were selected through convenient sampling from those who registered in diabetes mellitus clinics at government primary care clinics in Kuantan, Pahang during the study period from May 2010 to April 2011. The respondents were interviewed and evaluated clinically using structured questionnaires. Retinal examination was taken using non-mydratic retinal imaging by accredited staff. During the study period, 400 respondents agreed to be enrolled in the study. The mean age of patients was 51 years. They comprised of Malays (92.8%), females (66.7%), secondary education background (50.5%) and non-smoking adults (91.3%). The majority of them had diagnoses of diabetes mellitus for less than 5 years (58.8%) and had controlled blood pressure (51.0%). The prevalence of diabetic retinopathy and maculopathy were 33.5% and of 17.8% respectively. Most of these patients had mild non-proliferative diabetic retinopathy. There were no major differences in age, gender, education background, duration of DM, history of smoking, presence of systemic co-morbidity and visual impairment between two groups i.e.; without DR and with DR. Diabetic patients with DR had more percentages of chronic kidneys disease (17.9% vs. 6.8%;  $p < 0.001$ ) and a higher mean of HbA1C (8.69 vs. 8.11;  $p = 0.015$ ). The study revealed that DR was significantly associated with chronic kidney disease {OR: 3.463, 95% CI (1.763, 6.801)}, HbA1c {OR: 1.120, 95% CI (1.023, 1.227)} and dyslipidemia {OR: 1.120, 95% CI (0.395, 0.948)}. The study concluded that diabetic patients with presence of chronic kidney disease, dyslipidemia and high HbA1c had higher possibilities of suffering from diabetic retinopathy.

**Key Words:** Diabetic Retinopathy (DR), Non-mydratic Retinal Imaging, Primary Care Clinic.