

THE STUDY OF ORGAN INVOLVEMENT AMONG RECENTLY DIAGNOSED DIABETES MELLITUS PATIENTS IN KOTA TINGGI 2024

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ABSTRACT

INTRODUCTION: Chronic complications of diabetes mellitus are the major causes of morbidity and mortality in Malaysia. Around 15.6% adults in Malaysia have diabetes and it can lead to microvascular and macrovascular complications. OBJECTIVE: This study aimed to determine the level of organ involvements in recently diagnosed DM patients at PKD Kota Tinggi and factors contributing to it. METHODOLOGY: An analytical cross-sectional study was carried out using the 2024 clinical audit dataset from the National Diabetes Registry among diabetes mellitus patients in Kota Tinggi district. Data gathered encompassed sociodemographic characteristics, presences of comorbidities, usage of insulin therapy and clinical profiles including body mass index, lipid levels, and glycaemic control. Diabetic complications were assessed based on standard protocol in primary healthcare. Chi square analysis was utilised to determine the factors linked to the occurrence of microvascular and macrovascular complications. RESULTS: A total of 241 recently diagnosed T2DM participated in the study. Majority was female (56.8%). The age ranged between 19 to 86 years with mean age of 56.6 (SD 13.3) years. About three quarters of the patients had hypertension (76.3%) and half of the patient had dyslipidaemia (52.5%) and were overweight or obese (59.3%). About two-fifths of the patients (40%) had developed at least one diabetic complications. Nephropathy was the commonest diabetic complication (65.6%), followed by ischaemic heart disease (15.1%), retinopathy (10.0%), stroke (5.0%) and neuropathy (4.0%). There is a significant association between insulin therapy and nephropathy ($\chi^2(1) = [5.876]$, $p = [0.015]$). CONCLUSION: A significant proportion of diabetes mellitus patients already developed complications within 5 years of diagnosis. Specifically, insulin therapy was associated with a higher prevalence of nephropathy compared to patients not on insulin. There is a need to strengthen diabetes mellitus screening and early intervention at diagnosis or prediabetic stage to prevent complications.

Keywords: diabetes mellitus, complications, organ involvement
