

DIABETIC RETINOPATHY AND ITS ASSOCIATED FACTORS AMONG TYPE 2 DIABETES MELLITUS ADULT PATIENTS IN SEGAMAT, JOHOR

Ismah Mansurah Zainudin
Segamat District Health Office, Jalan Gudang Ubat, Segamat, Johor

Mohd Ridzuan Mohd Lutpi
Segamat District Health Office, Jalan Gudang Ubat, Segamat, Johor

Mohd Khairul Anwar Kamdi
Segamat District Health Office, Jalan Gudang Ubat, Segamat, Johor

Mohammad Nafis Sahiran
Segamat District Health Office, Jalan Gudang Ubat, Segamat, Johor

ABSTRACT

INTRODUCTION: The prevalence of diabetes mellitus (DM) among adults in Malaysia is showing an upward trend from 2011 (11.2%) to 2023 (15.6%). Diabetic retinopathy (DR) is a condition with progressive retinal damage that occurs due to a microvascular complication of diabetes mellitus. According to the National Eye Survey 2014, DR is the second leading cause of blindness in Malaysia. About 15,000 to 39,000 patients lose their sight because of diabetes. All DM patients are at risk of developing DR. **OBJECTIVES:** The aim of this study was to assess the prevalence of diabetic retinopathy and associated factors among type 2 diabetes mellitus (T2DM) patients in Segamat, Johor. **METHODOLOGY:** Sociodemographic and clinical data from the National Diabetic Registry, collected between January 2021 and December 2023, were analysed. Multiple logistic regression analysis were conducted to identify factors associated with diabetic retinopathy in adult patients with type 2 diabetes mellitus (T2DM). **RESULTS:** A total of 2,166 diabetic patients were included in this study. The prevalence of diabetic retinopathy was 8.4%. Multiple logistic regression analysis indicated that diabetic retinopathy was significantly associated with increasing age (AOR 1.036, $p < 0.001$, 95% CI = 1.019–1.054), longer diabetes duration (AOR 1.043, $p = 0.003$, 95% CI = 1.015–1.073), hypertension (AOR 1.923, $p = 0.046$, 95% CI = 1.011–3.656), and insulin treatment (AOR 1.987, $p < 0.001$, 95% CI = 1.397–2.826). **CONCLUSION:** Diabetic retinopathy was significantly associated with a longer duration of DM, increasing age, patients on insulin treatment, and patients with hypertension. Thus, it is important to strengthen the screening program for diabetic retinopathy for early detection and intervention to prevent vision loss. Vision loss reduces quality of life and increases direct and indirect costs.

Keywords: diabetic retinopathy, diabetes mellitus, factors
