

# KARAKTERISTIK FAKTOR-FAKTOR RISIKO TERJADINYA NEUROPATI DIABETIK PERIFER PADA PASIEN DIABETES MELLITUS

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## ABSTRAK

**Latar belakang:** *Diabetes mellitus (DM) adalah penyakit metabolik kronis yang menyebabkan komplikasi kronis dengan salah satunya gangguan neuropati diabetik perifer (NDP). Faktor-faktor risiko ini termasuk usia, tingkat merokok, indeks massa tubuh (IMT), variabilitas HbA1c, salah satunya rata-rata HbA1c (M-HbA1c), status hipertensi, kadar trigliserida, kadar kolesterol total, kadar lipoprotein rendah densitas (LDL), dan kadar lipoprotein tinggi densitas (HDL). Studi ini bertujuan untuk mengidentifikasi variabel yang memengaruhi output NDP. Metode:* *Studi retrospektif potong-lintang yang melibatkan pasien DM dengan komplikasi neuropati diabetik perifer dan tidak dilakukan di RS PON Jakarta dari Januari 2021 hingga Desember 2022. Untuk menentukan faktor-faktor yang mempengaruhi NDP, analisis chi-square dan regresi logistik digunakan untuk membandingkan grup NDP dan tidak berdasarkan umur, IMT, variabilitas M-HbA1c, status hipertensi, trigliserida, kolesterol total, LDL, dan HDL. Hasil :* *51 pasien tanpa NDP dan 62 dengan NDP. Menurut analisis chi-square, terdapat hubungan signifikan antara kejadian NDP pasien dan variabilitas M-HbA1c ( $p = 0,003$ ), trigliserida ( $p = 0,002$ ), kolesterol total ( $p = 0,001$ ), dan LDL ( $p = 0,016$ ). Analisis regresi logistik menunjukkan variabilitas M-HbA1c ( $p = 0,032$ , OR : 0,340, 95% CI), dan kadar trigliserida ( $p = 0,008$ , OR : 0,430, 95% CI). Kesimpulan :* *Penderita DM ini harus selalu memantau kondisi kesehatan mereka agar tidak menimbulkan komplikasi DM karena ada korelasi antara NDP dan variabel M-HbA1c, trigliserida, kolesterol total, dan LDL yang tinggi.*

**Kata kunci:** *Faktor Risiko, Komplikasi Diabetes Mellitus, Neuropati Diabetik Perifer*

# CHARACTERISTICS OF RISK FACTORS FOR THE DIABETIC PERIPHERAL NEUROPATHY IN PATIENTS WITH DIABETES MELLITUS

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## ABSTRACT

**Background:** *Diabetes mellitus (DM) is a chronic metabolic disease that causes chronic complications with one of them peripheral diabetic neuropathy disorder (NDP). These risk factors include age, smoking rates, body mass index (BMI), variability of HbA1c, one of which is average Hb A1c (M-HbA2c), hypertension status, triglyceride levels, total cholesterol levels, low density lipoprotein levels (LDL), and high density lipoproteins levels. (HDL). The study aims to identify variables that affect NDP outputs..* **Methods:** *A cross-sectional retrospective study involving DM patients with complications of peripheral diabetic neuropathy and not conducted at PON Jakarta Hospital from January 2021 to December 2022. To determine the factors that influence NDP, chi-square analysis and logistical regression are used to compare NDP and non-NDP groups based on age, IMT, M-HbA1c variability, hypertension status, triglycerides, total cholesterol, LDL, and HDL.* **Results:** *51 patients without NDP and 62 with NDP. According to a chi-square analysis, there is a significant relationship between the incidence of NDP in patients and the variability of M-HbA1c ( $p = 0,003$ ), triglycerides ( $p= 0,002$ ), total cholesterol ( $p=0,001$ ), and LDL ( $p=0,016$ ). The logistic regression analysis showed variability in M- HbA1c( $p=0,032$ , OR: 0,340, 95% CI), and triglycides levels ( $p=0,008$ , OR:0,430, 95% CI).* **Conclusion:** *People with DM should always monitor their health to avoid causing DM complications as there is a correlation between NDP and the variable M-HbA1c, triglycerides, total cholesterol, and high LDL.*

**Keywords:** *Complications of Diabetes Mellitus, Diabetic Peripheral Neuropathy, Risk Factors*