

ABSTRACT

Background: *Diabetes mellitus is a chronic metabolic disorder that predisposes individuals to various microvascular complications, with neuropathy being one of the most prevalent. Persistent hyperglycemia has been identified as a significant etiological factor in the development of diabetic neuropathy. The objective of this study is to determine the relationship between random blood glucose levels and the incidence of diabetic neuropathy in patients with Type 2 Diabetes Mellitus.*

Methods: *This study is an observational analytical research using a cross-sectional method. The research sample consisted of type 2 diabetes mellitus patients with a minimum of 92 respondents. Neuropathy was assessed using the DNS-Ina (Diabetic Neuropathy Symptom) questionnaire and random blood glucose values obtained from laboratory examination results. Data analysis was conducted using the Chi-square statistical test.*

Results: *Out of 92 respondents, 53.3% were not hyperglycemic, and 82.3% exhibited diabetic neuropathy. Statistical analysis using the Fisher's exact test yielded a p-value of 0.016 and an odds ratio (OR) of 4.568, indicating a significant association between random blood glucose levels and the incidence of diabetic neuropathy in Type 2 Diabetes Mellitus patients at the Internal Medicine Clinic of RSUD H. Abdul Manap Kota Jambi.*

Conclusion: *A statistically significant relationship was observed between random blood glucose levels and the prevalence of diabetic neuropathy among patients with Type 2 Diabetes Mellitus in the study population.*

Keywords: *Random Blood Glucose, Diabetic Neuropathy, Type 2 Diabetes Mellitus*

ABSTRAK

Latar Belakang: Diabetes melitus dapat menyebabkan berbagai komplikasi mikrovaskular, salah satu yang paling sering terjadi adalah Neuropati. Hiperglikemia secara persisten menjadi salah satu faktor penyebab neuropati diabetik. Tujuan penelitian untuk mengetahui hubungan kadar gula darah sewaktu dengan kejadian neuropati diabetik pada pasien Diabetes Melitus Tipe 2.

Metode: Penelitian ini adalah penelitian analitik observasional dengan metode *cross sectional*. Sampel penelitian yaitu pasien diabetes melitus tipe 2 dengan minimal sampel 92 responden. Neuropati dinilai menggunakan kuesioner DNS-Ina (*Diabetic Neuropathy Symptom*) serta nilai gula darah sewaktu dari hasil pemeriksaan laboratorium. Analisa data menggunakan uji statistik Chi-square.

Hasil: Dari 92 responden, didapatkan 53,3% responden yang tidak hiperglikemia dan 82,3% responden mengalami neuropati diabetik. Dari hasil uji Chi-square menunjukkan angka 0.017 dengan nilai OR 4.568 yang berarti terdapat hubungan yang signifikan antara kadar gula darah sewaktu dengan kejadian neuropati diabetik pada pasien diabetes melitus tipe 2 di poli penyakit dalam RSUD H. Abdul Manap Kota Jambi.

Kesimpulan: Terdapat hubungan antara kadar gula darah sewaktu dengan kejadian neuropati diabetik pada pasien diabetes melitus tipe 2 di poli penyakit dalam RSUD H. Abdul Manap Kota Jambi

Kata Kunci: Gula Darah Sewaktu, Neuropati Diabetik, Diabetes Melitus Tipe 2