

ABSTRAK

Hiperglikemi kronis dapat menyebabkan sel endotel pembuluh darah dan sel saraf menjadi hiperglisolia. Kondisi ini mengakibatkan perubahan berbagai jalur biokimia, salah satunya protein kinase C (PKC) yang menyebabkan penebalan pembuluh darah sehingga terjadi penurunan nilai ABI. Penurunan nilai ABI akan mengganggu metabolisme sel Schwann sehingga hantaran saraf perifer mengalami gangguan. Terganggunya hantaran saraf perifer akan menyebabkan penurunan sensitivitas kaki. Tujuan penelitian ini adalah untuk mengetahui *ankle brachial index* pada pasien diabetes mellitus tipe 2 dan korelasinya dengan sensitivitas kaki. Penelitian ini merupakan penelitian deskriptif korelasional dengan desain cross sectional. Populasi dalam penelitian ini adalah 45 responden yang mengikuti kegiatan prolanis di puskesmas padamukti dengan sampel 45 responden. Teknik sampling yang digunakan total sampling, analisis data menggunakan uji *pearson*. Teknik pengumpulan data menggunakan lembar observasi dengan melakukan pemeriksaan. Hasil penelitian univariat menunjukkan bahwa sebagian besar 41 responden (91,1%) berjenis kelamin perempuan, dengan usia lebih dari setengahnya 23 responden (51,1%) berusia >60 tahun, kemudian sebagian besar 40 responden (88,9%) lama menderita DM nya <5 tahun. Hasil Analisa Bivariat menunjukkan nilai ABI nya obstruksi ringan sebagian besar 35 responden (77,8%), dan yang sensitivitas kakinya terganggu sebagian besar 37 responden (82,2%). Hasil uji korelasi *pearson* menunjukkan adanya hubungan antara ABI dan sensitivitas kaki pada Penderita DM tipe 2 (*p-value* $0,001 \leq \alpha 0,05$). Kesimpulan nilai ABI yang semakin rendah menunjukkan adanya masalah sensitivitas kaki pada pasien diabetes mellitus tipe 2. Disarankan bagi puskesmas diharapkan dapat mempertahankan keaktifan perkumpulan klien dengan penyakit tidak menular agar berjalan dengan rutin, serta meningkatkan program-program yang dapat mencegah komplikasi diabetes khususnya pada kaki seperti senam kaki diabetik dan penyuluhan tentang perawatan kaki pada pasien diabetes melitus.

Kata kunci : *Ankle brachial index*, Diabetes Mellitus, Sensitivitas kaki

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ABSTRACT

*Chronic hyperglycemia can cause blood vessel endothelial cells and nerve cells to become hyperglycolytic. This condition results in changes in various biochemical pathways, one of which is protein kinase C (PKC), which causes blood vessels to thicken, resulting in a decrease in ABI values. A decrease in the ABI value will disrupt Schwann cell metabolism so that peripheral nerve conduction is disrupted. Disruption of peripheral nerve conduction will cause a decrease in foot sensitivity. The aim of this study was to determine the ankle brachial index in patients with type 2 diabetes mellitus and its correlation with foot sensitivity. This research is a descriptive correlational study with a cross sectional design. The population in this study was 45 respondents who took part in prolanis activities at the Kamukti Community Health Center with a sample of 45 respondents. The sampling technique used was total sampling, data analysis used the Pearson test. Data collection techniques use observation sheets by carrying out examinations. The results of the univariate research showed that the majority of 41 respondents (91.1%) were female, with the age of more than half of the 23 respondents (51.1%) being >60 years old, then the majority of 40 respondents (88.9%) had suffered for a long time. The DM is <5 years old. The results of Bivariate Analysis showed that the ABI value was mild obstruction for the majority of 35 respondents (77.8%), and the majority of those with impaired foot sensitivity were 37 respondents (82.2%). The results of the Pearson correlation test showed that there was a relationship between ABI and foot sensitivity in type 2 DM sufferers ($p\text{-value } 0.001 \leq a 0.05$). The conclusion is that a lower ABI value indicates a problem with foot sensitivity in patients with type 2 diabetes mellitus. It is recommended that community health centers be able to maintain active client associations with noncommunicable diseases so that they walk regularly, as well as increasing programs that can prevent diabetes complications, especially in the feet, such as diabetic foot exercises and education about foot care for diabetes mellitus patients. **Keywords** : Ankle brachial index, Diabetes Mellitus, Foot sensitivity*

Bibliography : 6 Books (2021-2022)

13 Journals (2019-2022)