

**PENGARUH *BUERGER ALLEN EXERCISE* TERHADAP
NILAI *ANKLE BRACHIAL INDEX* PENYANDANG
DIABETES MELITUS TIPE 2 DI WILAYAH
KERJA PUSKESMAS GAMPING II SLEMAN**

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ABSTRAK

Latar Belakang : Komplikasi Diabetes Melitus yang sering terjadi salah satunya yaitu neuropati diabetik, oleh sebab itu, diperlukan upaya deteksi dini dengan melakukan pengukuran *Ankle Brachial Index* dan upaya mencegah komplikasi tersebut, salah satunya dengan melakukan *Buerger Allen Exercise*.

Tujuan : Diketuainya pengaruh *Buerger Allen Exercise* terhadap nilai *Ankle Brachial Index* (ABI) penyandang DM tipe II di wilayah kerja puskesmas gamping II Sleman

Metode : Penelitian ini merupakan jenis penelitian *Quasi Experimental* dengan *Pre-Posttes with control group design*. Sampel dalam penelitian ini berjumlah 54 responden dengan masing-masing kelompok yakni 27 responden dengan teknik pengambilan *Purposive sampling*. Kelompok eksperimen diberikan *Buerger Allen Exercise*. Uji beda antara variabel berpasangan dan tidak berpasangan digunakan dalam penelitian ini yaitu Uji T Berpasangan.

Hasil Penelitian : Hasil analisis rerata nilai ABI didapatkan ada perbedaan signifikan terhadap nilai ABI yaitu $p = 0.000$ ($\alpha < 0.05$) pada kelompok intervensi dan $p = 0.003$ ($\alpha < 0.05$) pada kelompok kontrol. Hasil uji beda pada variabel tidak berpasangan antara nilai ABI diketahui bahwa terdapat perbedaan pada kelompok yang diberikan *Buerger Allen Exercise* mengalami peningkatan nilai ABI sebesar $p = 0.006$ ($\alpha < 0.05$) dibandingkan dengan kelompok yang tidak diberikan *Buerger Allen Exercise*, maka dapat disimpulkan bahwa adanya peningkatan nilai *Ankle Brachial Index* pada penyandang diabetes melitus tipe 2

Kesimpulan : Ada pengaruh *Buerger Allen Exercise* terhadap peningkatan nilai *Ankle Brachial Index* pada penyandang diabetes melitus tipe II di wilayah kerja Puskesmas Gamping II

Kata Kunci : Diabetes Melitus Tipe II, *Buerger Allen Exercise*, Nilai *Ankle Brachial Index*.

THE EFFECT OF BUERGER ALLEN EXERCISE ON THE VALUE OF ANKLE BRACHIAL INDEX IN PATIENTS WITH TYPE II DIABETES MELLITUS IN THE WORKING AREA OF THE GAMPING II SLEMAN HEALTH CENTER

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ABSTRACT

Background : Diabetes Mellitus complications that often occur are diabetic neuropathy, therefore, early detection efforts are needed by measuring the Ankle Brachial Index and efforts to prevent these complications, one of which is by doing Buerger Allen Exercise.

Objective : To know the effect of Buerger Allen Exercise on the value of Ankle Brachial Index (ABI) of people with type II DM in the work area of the Gamping II Sleman health center.

Methods : This research is a type of Quasi Experimental research with Pre-Posttest with control group design. The sample in this study amounted to 54 respondents with each group of 27 respondents with purposive sampling technique. The experimental group was given Buerger Allen Exercise. The difference test between paired and unpaired variables used in this study is the Paired T Test.

Results : The results of the analysis of the mean ABI value found that there was a significant difference in ABI values, namely $p = 0.000$ ($\alpha < 0.05$) in the intervention group and $p = 0.003$ ($\alpha < 0.05$) in the control group. The results of an independent test on unpaired variables between ABI values showed that there was a difference in the group given Buerger Allen Exercise had an increase in ABI value of $p = 0.006$ ($\alpha < 0.05$) compared to the group that was not given Buerger Allen Exercise, it can be concluded that the hypothesis is accepted.

Conclusion : There is an effect of Buerger Allen Exercise on increasing the value of the Ankle Brachial Index in people with type II diabetes mellitus in the work area of the Gamping II Health Center.

Keywords: *Type II Diabetes Mellitus, Buerger Allen Exercise, Ankle Brachial Index Value*