

## ABSTRAK

### **Pengaruh *Buerger Allen Exercise* Terhadap Nilai *Ankle Brachial Index* (ABI) Pada Klien Dengan Diabetes Melitus Tipe 2 Di Puskesmas Pacarkeling Kota Surabaya**

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Terdapat banyak komplikasi yang dialami penderita diabetes mellitus tipe 2 salah satunya adalah terganggunya pembuluh darah perifer pada ekstremitas bawah yang dapat menyebabkan kaki kebas, masalah tersebut tidak hanya berdampak terhadap fisik namun juga berdampak pada kualitas hidup penderita diabetes yang dapat dideteksi dengan menggunakan cara yaitu mengukur nilai *Ankle brachial index* (ABI). Salah satu alternatif intervensi yang mudah dapat dilakukan untuk mengurangi resiko komplikasi tersebut yaitu dengan *buerger allen exercise* yang dapat dilakukan penderita diabetes secara mandiri. Penelitian ini bertujuan untuk mengetahui pengaruh *buerger allen exercise* terhadap nilai *ankle brachial index* (ABI) Pada penderita diabetes melitus tipe 2. penelitian ini menggunakan metode rancangan Pre-experimental dengan metode pretest-posttest one grup design with control grub dengan teknik random sampling. Penderita DM pada penelitian ini sebanyak 24 masing – masing terdiri dari 12 penderita DM kelompok intervensi dan 12 penderita DM kelompok kontrol. *Buerger allen exercise* dilakukan sebanyak 6 kali selama 6 hari dengan durasi 15 menit. Hasil penelitian diperoleh terdapat perbedaan yang signifikan nilai ABI antara kelompok intervensi dan kelompok kontrol setelah diberikan *buerger allen exercise*. Berdasarkan data hasil Uji statistic *Independent T test* didapatkan ( $p\ value\ 0,016 < \alpha = 0.05$ ). Kesimpulan pada penelitian ini yaitu terdapat pengaruh *buerger allen exercise* terhadap nilai *ankle bracial index* (ABI) pada penderita diabetes mellitus tipe 2.

**Kata Kunci :** *Buerger allen exercise, ankle bracial index, Diabetes mellitus tipe 2.*

## ABSTRACT

### *The Effect Of Buerger Allen Exercise On Ankle Brachial Index (ABI) Value In Clients With Type 2 Diabetes Mellitus At Pacarkeling Health Center, Surabaya City*

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*There are many complications experienced by people with type 2 diabetes mellitus, one of which is disruption of the peripheral blood vessels in the lower extremities which can cause numbness in the legs. This problem not only has a physical impact but also has an impact on the quality of life of diabetes sufferers which can be detected using a method, namely measuring the value of Ankle brachial index (ABI). One alternative intervention that can easily be done to reduce the risk of these complications is the Burger Allen exercise which can be done by diabetes sufferers independently. This study aims to determine the effect of Buerger Allen exercise on ankle brachial index (ABI) values in people with type 2 diabetes mellitus. This study used a pre-experimental design method with a pretest-posttest one group design with control group method with random sampling technique. There were 24 DM sufferers in this study, each consisting of 12 DM sufferers in the intervention group and 12 DM sufferers in the control group. The Buerger Allen exercise is done 6 times for 6 days with a duration of 15 minutes. The research results showed that there was a significant difference in ABI values between the intervention group and the control group after being given the Buerger Allen exercise. Based on the data, the results of the Independent T test statistical test were obtained ( $p$  value  $0.016 < \alpha = 0.05$ ). The conclusion of this study is that there is an influence of Buerger Allen exercise on the ankle bracial index (ABI) value in people with type 2 diabetes mellitus.*

**Keywords:** *Buerger Allen exercise, ankle bracial index, Diabetes mellitus type 2.*