

ABSTRAK

Pengaruh Buerger Allen Exercise dan Senam Kaki Diabetes Terhadap Nilai Ankle Brachial Index pada Penderita Diabetes Mellitus

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Latar Belakang: Gangguan pada pembuluh darah ekstremitas bawah merupakan satu dari sekian komplikasi yang paling umum terjadi pada individu dengan DM, dimana gangguan tersebut bisa menyebabkan penurunan sensitivitas kaki. Kondisi ini bisa dideteksi dari pengukuran *Ankle Brachial Index* (ABI). Guna mencegah dan mengurangi risiko komplikasi tersebut, aktivitas fisik seperti *Buerger Allen Exercise* serta senam kaki diabetes bisa diterapkan. Tujuan dari dilaksanakannya penelitian ini ialah guna mengetahui pengaruh *Buerger Allen Exercise* dan senam kaki diabetes terhadap nilai ABI pada penderita Diabetes Mellitus.

Metode: Desain penelitian yang diterapkan yaitu *quasi-experimental* dengan *one group pre-posttest design*, menggunakan teknik *consecutive sampling*. Sebanyak 25 penderita diabetes mellitus dilibatkan dalam studi ini. Intervensi diberikan selama lima hari berturut-turut, masing-masing dilaksanakan selama 25 menit setiap sesi.

Hasil: Terdapat pengaruh yang signifikan pada nilai *Ankle Brachial Index* sebelum dan setelah dilakukan intervensi *Buerger Allen Exercise* dan senam kaki diabetes. Berdasarkan data hasil uji *Chi-Square* diketahui bahwa hasil konstan, sedangkan pada uji statistik *Paired T-Test* didapatkan ($p \text{ value} < \alpha = 0.05$).

Kesimpulan: Merujuk pada hal tersebut, disimpulkan bahwa *Buerger Allen Exercise* dan senam kaki diabetes memberi pengaruh terhadap peningkatan nilai *Ankle Brachial Index* bagi penderita dengan DM.

Kata Kunci: *Ankle Brachial Index*, *Buerger Allen Exercise*, Senam Kaki Diabetes, Diabetes Mellitus

ABSTRACT

The Effect of *Buerger Allen Exercise* and Diabetic Foot Exercise on *Ankle Brachial Index* in Patients with Diabetes Mellitus

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Background: Vascular disorders in the lower extremities represent a prevalent complication among patients with diabetes mellitus, often resulting in diminished foot sensitivity. The *Ankle Brachial Index* (ABI) is a diagnostic tool for assessing this condition. Engaging in physical activities, such as *Buerger Allen Exercise* and specialised diabetic foot exercises, is crucial for preventing and mitigating these complications. This study aims to assess the effects of *Buerger Allen Exercises* and diabetic foot exercises on *Ankle Brachial Index* in patients with diabetes mellitus.

Methods: Employing a *quasi-experimental design*, this research utilized a *one-group pre-posttest* framework coupled with a consecutive sampling technique. A cohort of 25 patients with diabetes mellitus was enrolled in the study. Participants engaged in the *Buerger Allen Exercise* and diabetic foot exercise regimen five times over 5 days, with each session lasting 25 minutes.

Results: The results demonstrated a statistically significant difference in the *Ankle Brachial Index* (ABI) values when comparing pre- and post- intervention assessments. Specifically, the analysis conducted using the *Paired T-Test* yielded a p-value of $< \alpha=0.05$.

Conclusion: Therefore, it can be concluded that *Buerger Allen Exercise* and diabetic foot exercise exert a significant influence on the *Ankle Brachial Index* in patients with diabetes mellitus.

Keywords: *Ankle Brachial Index*, *Buerger Allen Exercise*, Diabetic Foot Exercise, Diabetes Mellitus.