

**PENGARUH KOMBINASI *BUERGER ALLEN EXERCISE* DAN *FOOT SPA*  
TERHADAP NILAI *ANKLE BRACHIAL INDEX* PADA PENYANDANG  
DIABETES MELITUS TIPE II DI PUSKESMAS MINGGIR**

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**ABSTRAK**

**Latar Belakang:** Diabetes melitus tipe II merupakan penyakit metabolik kronis yang dapat menyebabkan komplikasi mikrovaskular dan makrovaskular, salah satunya *penyakit arteri perifer* (PAD). Pemeriksaan *Ankle Brachial Index* (ABI) digunakan untuk menilai aliran darah perifer dan mendeteksi PAD. Kombinasi terapi non-farmakologis seperti *Buerger Allen Exercise* dan *Foot Spa* telah terbukti dapat meningkatkan sirkulasi darah dan mencegah komplikasi pada penyandang diabetes melitus tipe II.

**Tujuan:** Mengetahui pengaruh kombinasi *Buerger Allen Exercise* dan *Foot Spa* terhadap nilai *Ankle Brachial Index* (ABI) pada penyandang diabetes melitus tipe II di Puskesmas Minggir.

**Metode:** Penelitian ini menggunakan desain *pre-eksperimental* dengan pendekatan *one group pretest-posttest*. Sampel berjumlah 40 responden yang dipilih secara *purposive sampling* dan memenuhi kriteria inklusi. Intervensi dilakukan selama dua minggu sebanyak 3 kali per minggu. Pengukuran nilai ABI dilakukan sebelum dan sesudah intervensi menggunakan *sphygmomanometer* dan *stetoskop* sesuai prosedur standar.

**Hasil:** Terdapat peningkatan nilai ABI yang signifikan setelah dilakukan intervensi kombinasi *Buerger Allen Exercise* dan *Foot Spa*. Hasil uji statistik menunjukkan terdapat pengaruh yang bermakna antara sebelum dan sesudah intervensi ( $p < 0,05$ ).

**Kesimpulan:** Kombinasi *Buerger Allen Exercise* dan *Foot Spa* efektif dalam meningkatkan nilai ABI pada penyandang diabetes melitus tipe II. Terapi ini dapat dijadikan sebagai intervensi non-farmakologis alternatif dalam mencegah komplikasi PAD.

**Kata Kunci:** Diabetes Melitus Tipe II, *Ankle Brachial Index*, *Buerger Allen Exercise*, *Foot Spa*

**THE EFFECT OF A COMBINATION OF BUERGER ALLEN EXERCISE  
AND FOOT SPA ON ANKLE BRACHIAL INDEX IN PATIENTS WITH  
TYPE 2 DIABETES MELLITUS AT MINGGIR PUBLIC HEALTH  
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**ABSTRACT**

**Background:** Type II diabetes mellitus is a chronic metabolic disease that can lead to microvascular and macrovascular complications, including peripheral artery disease (PAD). The Ankle Brachial Index (ABI) is a non-invasive method used to assess peripheral blood flow and detect PAD. Non-pharmacological therapies such as Buerger Allen Exercise and Foot Spa are believed to improve blood circulation and prevent complications in patients with type II diabetes mellitus.

**Objective:** To determine the effect of a combination of Buerger Allen Exercise and Foot Spa on the Ankle Brachial Index (ABI) value in patients with type II diabetes mellitus at Minggir Public Health Center.

**Methods:** This study used a pre-experimental design with a one-group pretest-posttest approach. A total of 40 respondents were selected using purposive sampling based on inclusion criteria. The intervention was carried out for two weeks, three times per week. ABI values were measured before and after the intervention using a sphygmomanometer and stethoscope according to standard procedures.

**Results:** There was a significant increase in ABI values after the intervention. Statistical analysis showed a significant difference between pretest and posttest ABI scores ( $p < 0.05$ ), indicating the effectiveness of the combined therapy.

**Conclusion:** The combination of Buerger Allen Exercise and Foot Spa is effective in increasing ABI values in patients with type II diabetes mellitus. This therapy can be considered a useful non-pharmacological intervention to prevent PAD complications.

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