

**PENGARUH PENAMBAHAN *MYOFASCIAL RELEASE* TERHADAP
PENURUNAN NYERI DAN PENINGKATAN FUNGSIONAL
PADA PENDERITA *CARPAL TUNNEL SYNDROME*
DI RSUD AJIBARANG**

Natasya Deby Putry Puspita Sari¹, Mubayinul Khoeroh², Arjun Gholpa Ashadi²

ABSTRAK

Latar Belakang : *Carpal Tunnel Syndrome* (CTS) adalah neuropati akibat penekanan *nervus medianus* pada pergelangan tangan yang menimbulkan nyeri, kesemutan, dan gangguan fungsi tangan. Modalitas fisioterapi seperti *Transcutaneous Electrical Nerve Stimulation* (TENS) dan *Ultrasound* (US) telah banyak digunakan untuk mengurangi nyeri dan meningkatkan fungsi, namun hasilnya belum optimal. *Myofascial Release* (MFR) diketahui dapat meningkatkan elastisitas jaringan, mengurangi restriksi fascia, serta berpotensi mempercepat perbaikan nyeri dan fungsi pada CTS.

Tujuan : Mengetahui pengaruh penambahan *Myofascial Release* terhadap penurunan nyeri dan peningkatan fungsional pada penderita *Carpal Tunnel Syndrome* (CTS) di RSUD Ajibarang.

Metode Penelitian : Penelitian ini menggunakan desain *quasi-experimental* dengan *pretest-posttest control group*. Sebanyak 20 responden CTS dibagi menjadi dua kelompok : kontrol (TENS + US) dan intervensi (TENS + US + MFR). Intervensi dilakukan 8 sesi selama 4 minggu. Nyeri diukur menggunakan *Numeric Rating Scale* (NRS) dan kemampuan fungsional menggunakan *Wrist and Hand Disability Index* (WHDI). Analisis data meliputi Uji Normalitas, Uji *Wilcoxon*, Uji *Paired t-test*, Uji *Mann-Whitney U*, Uji *Independent t-test*, dan Uji *Friedman* dengan tingkat signifikansi $p < 0,05$.

Hasil : Kedua kelompok mengalami penurunan nyeri yang signifikan ($p < 0,05$), namun kelompok intervensi menunjukkan penurunan nyeri dan peningkatan fungsi yang lebih besar dibandingkan kontrol ($p < 0,05$).

Kesimpulan : Penambahan *Myofascial Release* efektif menurunkan nyeri dan meningkatkan kemampuan fungsional pada pasien CTS, sehingga dapat direkomendasikan sebagai bagian dari intervensi fisioterapi di layanan kesehatan.

Kata Kunci : *Carpal Tunnel Syndrome*, *Myofascial Release*, *TENS*, *Ultrasound*, Nyeri, Fungsi Tangan

¹ Mahasiswa Program Studi Fisioterapi Amikom Purwokerto

² Dosen Program Fisioterapi Amikom Purwokerto

**THE EFFECT OF ADDITIONAL MYOFASCIAL RELEASE ON PAIN
RELIEF AND FUNCTIONAL IMPROVEMENT IN CARPAL
TUNNEL SYNDROME PATIENTS AT AJIBARANG
REGIONAL HOSPITAL**

Natasya Deby Putry Puspita Sari¹, Mubayinul Khoeroh², Arjun Gholpa Ashadi²

ABSTRACT

Background : *Carpal Tunnel Syndrome (CTS) is a neuropathy caused by compression of the median nerve in the wrist, causing pain, tingling, and impaired hand function. Physiotherapy modalities such as Transcutaneous Electrical Nerve Stimulation (TENS) and Ultrasound (US) have been widely used to reduce pain and improve function, but the results are not optimal. Myofascial Release (MFR) is known to increase tissue elasticity, reduce fascial restrictions, and potentially accelerate pain and functional improvement in CTS.*

Purpose : *To determine the effect of adding Myofascial Release on reducing pain and improving function in Carpal Tunnel Syndrome (CTS) patients at Ajibarang Regional Hospital.*

Method : *This study used a quasi-experimental design with a pretest-posttest control group. A total of 20 CTS respondents were divided into two groups: control (TENS + US) and intervention (TENS + US + MFR). The intervention was carried out in 8 sessions over 4 weeks. Pain was measured using the Numeric Rating Scale (NRS) and functional ability using the Wrist and Hand Disability Index (WHDI). Data analysis included the Normality Test, Wilcoxon Test, Paired t-test, Mann-Whitney U Test, Independent t-test, and Friedman Test with a significance level of $p < 0.05$.*

Result : *Both groups experienced significant pain reduction ($p < 0.05$), but the intervention group showed greater pain reduction and functional improvement than the control ($p < 0.05$).*

Conclusion : *The addition of Myofascial Release is effective in reducing pain and improving functional ability in CTS patients, so it can be recommended as part of physiotherapy interventions in health services.*

Keywords : *Carpal Tunnel Syndrome, Myofascial Release, TENS, Ultrasound, Pain, Hand Function.*

¹ Physiotherapy Student, Amikom Purwokerto

² Lecturer, Physiotherapy Program, Amikom Purwokerto