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Iqbal Ramadhan Fauzi

Program Studi S-1 Fisioterapi,

Fakultas Fisioterapi,

Universitas Esa Unggul

EFEKTIFITAS PENAMBAHAN *NEURAL MOBILIZATION* PADA INTERVENSI *ULTRASOUND* TERHADAP DISABILITAS TANGAN DAN NYERI PADA KASUS *CARPAL TUNNEL SYNDROME*

Terdiri VI Bab, 64 Halaman, 13 Tabel, 2 Gambar, 9 Grafik, 4 skema, 6 Lampiran

Tujuan : Untuk mengetahui perbedaan penambahan *neural mobilization* pada intervensi *ultrasound* (US) terhadap disabilitas tangan dan nyeri pada *carpal tunnel syndrome*. **Metode :** Penelitian ini adalah *eksperimental* menggunakan *pretest-post test group design*. Penelitian ini dilakukan di RSUD Kramat Jati selama 2 minggu. Sampel terdiri dari 11 orang perempuan dan 5 orang laki-laki, dipilih berdasarkan teknik *purposive sampling*. Sampel dikelompokkan menjadi dua kelompok, kelompok kontrol terdiri dari 8 orang dengan intervensi *Ultra Sound* dan kelompok perlakuan yang terdiri dari 8 orang dengan intervensi *Ultra Sound* dan *neural mobilization*. **Hasil :** Uji normalitas menggunakan *Shapiro Wilk Test* didapatkan nilai $p > \alpha(0,05)$ data berdistribusi normal. Uji Homogenitas menggunakan *Levene's Test* didapatkan nilai $p > \alpha(0,05)$ data homogen. Hasil uji hipotesis pada kelompok kontrol menggunakan *Paired Sample t-test* didapatkan nilai mean dan SD sebelum intervensi 31.00 ± 3.854 dan sesudah intervensi 19.50 ± 3.338 pada *Wirst Hand Disability Index* dan sebelum intervensi 23.50 ± 3.338 dan sesudah intervensi 36.25 ± 5.392 pada *Sphygmomanometer* dengan nilai $p = 0,001$ yang berarti ada penurunan disabilitas dan nyeri dengan pemberian *Ultrasound*. Pada kelompok perlakuan menggunakan *Paired Sample t-test* didapatkan nilai mean dan SD sebelum intervensi 31.50 ± 4.870 dan sesudah intervensi 13.50 ± 3.338 pada *Wirst Hand Disability Index* dan sebelum intervensi 24.25 ± 4.062 dan sesudah intervensi 46.50 ± 3.338 pada *Sphygmomanometer* dengan nilai $p = 0,001$ yang berarti ada penurunan disabilitas dan nyeri dengan pemberian *Ultrasound* dan *neural mobilization*. Pada hasil *Independent Sample t-test* didapatkan nilai akhir *Wirst Hand Disability Index* pada kelompok kontrol 19.50 ± 3.338 dan kelompok perlakuan 13.50 ± 3.338 dengan nilai $p = 0,003$ dan nilai akhir *Sphygmomanometer* pada kelompok kontrol 36.25 ± 5.392 dan kelompok perlakuan 46.50 ± 3.338 dengan nilai $p = 0,001$ yang berarti ada perbedaan efek penambahan *neural mobilization* pada *ultrasound* terhadap disabilitas dan nyeri pada kasus *Carpal Tunnel Syndrome*. **Kesimpulan :** Ada Perbedaan efek penambahan *neural mobilization* pada *ultrasound* terhadap disabilitas dan nyeri pada kasus *Carpal Tunnel Syndrome*.

Kata Kunci : *Ultrasound*, *neural mobilization*, Disabilitas, Nyeri.

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Iqbal Ramadhan Fauzi

S-1 Physioteraphy Study Program,
Faculty of Physioterapi,
Esa Unggul University

THE EFFECTIVENESS OF NEURAL MOBILIZATION IN ADDITION TO
ULTRASOUND INTERVENTION FOR HAND DISABILITIES AND PAIN IN
CARPAL TUNNEL SYNDROME

Consist VI Chapter, 64 pages, 13 Tables, 2 Pictures, 9 Graphics, 4 Scheme, 6
Attachment

Object : To determine differences neural mobilization in addition to ultrasound intervention for hand disabilities and pain in carpal tunnel syndrome. **Methods :** This study is an experimental study using pretest-posttest group design. This research was conducted in RSUK Kramat Jati for 2 weeks. The sample consisted of 14 women and 6 men, were selected based on purposive sampling technique. Samples divided into two treatment groups, the control group consists of 8 people with Ultrasound intervention and treatment group consists of 8 people with Ultrasound intervention and neural mobilization. **Results :** Normality test using Shapiro Wilk Test $p \text{ value} > \alpha (0.05)$ normal distribution of data. Homogeneity test using Levene's Test $p \text{ value} > \alpha (0.05)$ Data homogeneous. Hypothesis test results in the control group using paired sample t-test obtained mean and SD before the intervention $31.00 \pm 3,854$ and after intervention $19.50 \pm 3,338$ on Wirst Hand Disability Index and before intervention $23.50 \pm 3,338$ and after intervention $36.25 \pm 5,392$ on sphygmomanometer with $p = 0.001$ which means there is a decrease disability and pain by giving Ultrasound. In treatment group using Paired Sample t-test obtained mean and SD before intervention 31.50 ± 4.870 and after intervention 13.50 ± 3.338 on Wirst Hand Disability Index with $p = 0.001$ which means there is a decrease disability and pain by giving Ultrasound and neural mobilization. On the results of the Independent Sample T-Test obtained final value of Wirst Hand Disability Index in control group 19.50 ± 3.338 and treatment group 13.50 ± 3.338 with $p = 0,003$ and final value of Sphygmomanometer in control group 36.25 ± 5.392 and treatment group 46.50 ± 3.338 with $p = 0,001$ which means there is a difference effects of adding neural mobilization to ultrasound for disability and pain in Carpal Tunnel Syndrome. **Conclusion:** There is a difference effects of adding neural mobilization to ultrasound for disability and pain in Carpal Tunnel Syndrome.

Keywords : Ultrasound, neural mobilization, disability, pain