

## ABSTRAK



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**Mifta Khairia**

Program Studi S-1 Fisioterapi

Fakultas Fisioterapi

Universitas Esa Unggul

### **EFEK PENAMBAHAN SLOW HEAVY RESISTANCE DAN ECCENTRIC GASTROCNEMIUS EXERCISE PADA ROPE JUMP EXERCISE UNTUK MENINGKATKAN DAYA TAHAN OTOT GASTROCNEMIUS PADA KASUS TENDINITIS ACHILLES**

*Tendinitis achilles* adalah peradangan tendon *achilles* yang disebabkan karena kerusakan yang terjadi pada kesatuan otot tendon karena penggunaan berlebihan (*overuse*) atau karena peregangan berlebihan (*overstretch*). *Tendinitis achilles* dapat menyebabkan masalah seperti penurunan daya tahan otot di sekitar pergelangan kaki, terutama otot *gastrocnemius*. Bentuk intervensi yang dapat meningkatkan daya tahan otot *gastrocnemius* pada kasus *tendinitis achilles* adalah *rope jump exercise*, *slow heavy resistance exercise*, dan *eccentric gastrocnemius exercise*. Penelitian ini bertujuan untuk mengetahui adanya perbedaan efek penambahan *slow heavy resistance exercise* dan *eccentric gastrocnemius exercise* pada *rope jump exercise*. Desain penelitian ini adalah quasi eksperiment berupa *pre test* dan *post test control group design*, menggunakan 2 kelompok. Hasil penelitian menunjukkan kelompok I memiliki persentasi perempuan (100%), sedangkan pada kelompok II memiliki persentasi laki-laki (20%) dan perempuan (80%), berdasarkan usia pada kelompok I maupun kelompok II memiliki rata-rata usia 16 tahun. Uji *paired sampel test* menunjukkan hasil pemberian *slow heavy resistance exercise* ( $P=0,001$ ) dan *eccentric gastrocnemius* ( $P=0,001$ ) dapat peningkatan daya tahan otot *gastrocnemius*. Selain itu dapat diketahui pula bahwa tidak terdapat perbedaan efek *slow heavy resistance exercise* dan *eccentric gastrocnemius exercise* pada *rope jump exercise* terhadap peningkatan daya tahan otot *gastrocnemius* pada kasus *tendinitis achilles*. Hasil penelitian ini diharapkan dapat menjadi rekomendasi pilihan dalam menyusun program-program latihan yang ditunjukan untuk meningkatkan daya tahan otot *gastrocnemius* pada kasus *tendinitis achilles*.

**Kata Kunci:** *Slow heavy resistance exercise*, *Eccentric gastrocnemius exercise*, *Rope jump exercise*, *Tendinitis achilles*.

**ABSTRACT**



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**Mifta Khairia**

Physical therapy Undergraduate Program

Faculty of Physical therapy

Esa Unggul University

**EFFECTS OF ADDITIONONG SLOW HEAVY RESISTANCE AND ECCENTRIC GASTROCNEMIUS EXERCISE TO ROPE JUMP EXERCISE TO INCREASE GASTROCNEMIUS MUSCLE ENDURANCE IN CAES OF ACHILLES TENDINITIS**

*Achilles tendinitis is an inflammation of the Achilles tendon caused by damage to the tendon muscle union due to overuse or overstretching. Achilles tendinitis can cause problems such as reduced endurance in the muscles around the ankle, especially the gastrocnemius muscles. Forms of intervention that can increase the endurance of the gastrocnemius muscles in cases of achilles tendinitis are rope jump exercises, slow heavy resistance exercises, and eccentric gastrocnemius exercises. This study aims to determine the difference in the effect of adding slow heavy resistance exercise and eccentric gastrocnemius exercise to rope jump exercise. The design of this study was a quasi-experimental in the form of a pre-test and post-test control group design, using 2 groups. The results showed that group I had a percentage of women (100%), while group II had a percentage of men (20%) and women (80%), based on age in group I and group II, the average age was 16 years. The paired sample test showed that the results of slow heavy resistance exercise ( $P=0.001$ ) and eccentric gastrocnemius ( $P=0.001$ ) increased the endurance of the gastrocnemius muscles. In addition, it can be seen that there is no difference in the effects of slow heavy resistance exercise and eccentric gastrocnemius exercise on rope jump exercise on increasing gastrocnemius muscle endurance in cases of achilles tendinitis. The results of this study are expected to be a recommendation of choice in developing exercise programs aimed at increasing the endurance of the gastrocnemius muscles in cases of achilles tendinitis.*

**Keyword:** Slow heavy resistance exercise, Eccentric gastrocnemius exercise, Rope jump exercise, Tendinitis achilles.