

## INTISARI

UNIVERSITAS AL-IRSYAD CILACAP  
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**“APLIKASI TRANSCUTANEOUS ELECTRICAL NERVE STIMULATION DAN KNEE TO CHEST EXERCISE PADA KONDISI LOW BACK PAIN MYOGENIC ”**

**Latar Belakang dan Tujuan Penelitian :** *Low back pain myogenic* merupakan gangguan pada struktur otot punggung yang umumnya terjadi karena trauma yang berupa *spasme* otot, *strain*, dan *sprain ligamen* di punggung bawah tanpa disertai gangguan neurologis. Tujuan Karya Tulis ini merupakan syarat kelulusan Diploma III Fisioterapi dan bertujuan untuk mengetahui modalitas *Trancutaneous Electrical Nerve Stimulation* dan *Knee To Chest Exercise* dalam mengurangi nyeri dan meningkatkan lingkup gerak sendi pada punggung bawah.

**Metode Penanganan Kasus :** Penanganan fisioterapi pada kondisi *low back pain myogenic* dengan modalitas *Trancutaneous Electrical Neve Stimulation* dan *Knee To Chest Exercise*. Problematika yang dibahas adalah nyeri dan lingkup gerak sendi. Instrumen yang digunakan adalah *Visual Analog Scale* dan *Schober Test*. Terapi dimulai dari tanggal 10 Februari sampai 17 Februari 2023 dilakukan sebanyak 4 kali terapi.

**Hasil Penelitian :** Nyeri berkurang dan lingkup gerak sendi bertambah dengan penggunaan modalitas *Trancutaneous Electrical Nerve Stimulation* dan *Knee To Chest Exercise*. Setelah dilakukan tindakan fisioterapi sebanyak 4 kali didapatkan hasil adanya penurunan nyeri gerak dengan hasil  $T_1 = 2,9$  cm hingga  $T_4 = 0,2$  cm, penurunan nyeri tekan dengan hasil  $T_1 = 1,9$  hingga  $T_4 = 0,2$  cm, penurunan nyeri diam dengan hasil  $T_1 = 1,2$  cm hingga  $T_4 = 0$  cm dan peningkatan lingkup gerak sendi pada gerakan *fleksi* dengan hasil  $T_1 = 51$  cm hingga  $T_4 = 57$  cm, gerakan *ekstensi* dengan hasil  $T_1 = 53$  cm hingga  $T_4 = 54$  cm, gerakan *lateral fleksi dextra* dengan hasil  $T_1 = 49$  cm hingga  $T_4 = 51$  cm, gerakan *lateral fleksi sinistra* dengan hasil  $T_1 = 49$  cm hingga  $T_4 = 52$  cm.

**Simpulan dan Saran :** *Trancutaneous Electrical Nerve Stimulation* dan *Knee To Chest Exercise* berpengaruh terhadap penurunan nyeri dan meningkatkan lingkup gerak sendi. Saran yang dapat diberikan yaitu jika terjadi kondisi *low back pain myogenic* bisa dilakukan tindakan fisioterapi berupa *Trancutaneous Electrical Nerve Stimulation* dan *Knee To Chest Exercise*.

**Kata Kunci :** *Low back pain Myogenic* , *Trancutaneous Electrical Nerve Stimulation*, *Knee To Chest Exercise*

## ABSTRACT

AL-IRSYAD UNIVERSITY CILACAP  
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**“APLIKASI TRANSCUTANEOUS ELECTRICAL NERVE STIMULATION DAN KNEE TO CHEST EXERCISE PADA KONDISI LOW BACK PAIN MYOGENIC ”**

**Background and Purpose of Writing :** *Myogenic* low back pain is a disorder of the back muscle structure which generally occurs due to trauma in the form of muscle spasms, strains, and ligament sprains in the lower back without any neurological disorders. The purpose of this paper is a graduation requirement for Diploma III in Physiotherapy and aims to determine the modalities of Trancutaneous Electrical Nerve Stimulation and Knee To Chest Exercise in reducing pain and increasing the range of motion of the joints in the lower back.

**Research Method :** Physiotherapy treatment for *myogenic* low back pain with the modalities of Trancutaneous Electrical Neve Stimulation and Knee To Chest Exercise. The problems discussed were pain and range of motion of the joints. The instruments used are the Visual Analog Scale and Schober Test. Therapy starts from February 10 to February 17 2023, 4 treatments are carried out.

**Research Results :** Pain is reduced and the range of motion of the joints increases with the use of the modalities Trancutaneous Electrical Nerve Stimulation and Knee To Chest Exercise. After 4 physiotherapy measures, the result was a decrease in motion pain with a result of T1 = 2.9 cm to T4 = 0.2 cm, a decrease in tenderness with a result of T1 = 1.9 to T4 = 0.2 cm, a decrease in silent pain with a result of T1 = 1.2 cm to T4 = 0 cm and an increase in the range of motion of the joint in flexion with a result of T1 = 51 cm to T4 = 57 cm, an extension movement with a result of T1 = 53 cm to T4 = 54 cm, lateral flexion dextra with T1 = 49 cm to T4 = 51 cm, left lateral flexion with T1 = 49 cm to T4 = 52 cm.

**Conclusions :** Trancutaneous Electrical Nerve Stimulation and Knee To Chest Exercise have an effect on reducing pain and increasing the range of motion of the joints. The advice that can be given is that if there is a condition of *myogenic* low back pain, physiotherapy can be done in the form of Trancutaneous Electrical Nerve Stimulation and Knee To Chest Exercise.

**Keywords :** Low back pain *Myogenic* , Trancutaneous Electrical Nerve Stimulation, Knee To Chest Exercise