PENATALAKSANAAN FISIOTERAPI PADA KASUS *HERNIA NUCLEUS PULPOSUS LUMBAL*

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Abstrak

Latar Belakang*: Hernia Nucleus pulposus* (HNP) lumbal merupakan salah satu penyebab utama nyeri punggung bawah yang terjadi akibat penonjolan *nucleus pulposus* melalui robekan annulus fibrosus, sehingga menekan akar saraf tulang belakang. Kondisi ini umum terjadi pada usia produktif, terutama antara 30–50 tahun. **Tujuan:** Penulisan ini adalah untuk mengevaluasi efektivitas intervensi fisioterapi berupa TENS, terapi ultrasound, dan latihan McKenzie terhadap tingkat nyeri, lingkup gerak sendi, kekuatan otot, dan fungsi aktivitas harian pada pasien dengan diagnosis HNP lumbal. **Metode:** Metode yang digunakan adalah studi kasus terhadap seorang pasien perempuan usia 42 tahun, dengan diagnosis HNP lumbal. Parameter yang dinilai meliputi tingkat nyeri, lingkup gerak sendi, kekuatan otot, dan fungsi aktivitas harian menggunakan Oswestry Disability Index (ODI). Intervensi yang diberikan meliputi Transcutaneous Electrical Nerve Stimulation (TENS), terapi ultrasound, dan latihan McKenzie selama empat sesi dalam tiga minggu. **Hasil:** Hasil evaluasi menunjukkan adanya penurunan tingkat nyeri, peningkatan kekuatan otot, peningkatan lingkup gerak sendi, serta perbaikan kemampuan fungsional pasien. **Kesimpulan:** Dapat disimpulkan bahwa kombinasi intervensi TENS, ultrasound, dan latihan McKenzie efektif dalam penanganan HNP lumbal secara subjektif dan objektif.

Kata Kunci: *Hernia Nucleus Pulposus, Transcutaneus Electrical Nerve Stimulation, Ultrasound, McKenzie Exercise, Oswestry Disability Index.*

PHYSIOTHERAPY MANAGEMENT IN HERNIA NUCLEUS PULPOSUS LUMBAL

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Abstract

Background: Lumbar Herniated Nucleus pulposus (HNP) is one of the main causes of lower back pain, resulting from the protrusion of the nucleus pulposus through a tear in the annulus fibrosus, thereby compressing spinal nerve roots. This condition commonly occurs in individuals of productive age, particularly between 30–50 years old. **Purpose:** The purpose of this study is to evaluate the effectiveness of physiotherapy interventions, including Transcutaneous Electrical Nerve Stimulation (TENS), ultrasound therapy, and McKenzie exercises, on pain intensity, range of motion, muscle strength, and daily functional activity in a patient diagnosed with lumbar HNP. **Methode:** The method employed was a case study involving a 42-year-old female patient diagnosed with lumbar HNP. The parameters assessed included pain level, range of motion, muscle strength, and daily activity function using the Oswestry Disability Index (ODI). The interventions administered consisted of Transcutaneous Electrical Nerve Stimulation (TENS), ultrasound therapy, and McKenzie exercises over four sessions within three weeks. **Result:** The evaluation results demonstrated a reduction in pain level, increased muscle strength, improved range of motion, and enhanced functional abilities of the patient. **Conclusion:** It can be concluded that the combination of TENS, ultrasound, and McKenzie exercises is effective in the management of lumbar HNP, both subjectively and objectively.

Keywords: Herniated Nucleus Pulposus, Transcutaneus Electrical Nerve Stimulation, Ultrasound, McKenzie Exercise, Oswestry Disability Index.