

PELAKSANAAN FISIOTERAPI MENGGUNAKAN MODALITAS TRANSCUTANEOUS ELECTRICAL NERVE STIMULATION (TENS), ULTRASOUND, INFRARED, DAN RESISTANCE BAND PADA KONDISI SPRAIN ANKLE GRADE I DI DEWA UNITED

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Abstrak

Latar Belakang : Cedera *ankle sprain grade I* didefinisikan sebagai trauma ringan di area pergelangan kaki yang prevalensinya cukup tinggi di kalangan pemain sepak bola, terutama pada atlet usia muda dengan intensitas latihan tinggi. Kondisi ini umumnya dipicu oleh mekanisme gerak plantar fleksi dan inversi mendadak yang mengakibatkan peregangan ligamen tanpa disertai robekan yang signifikan. Meskipun tergolong ringan, penanganan yang tidak optimal, dapat meningkatkan resiko terjadinya instabilitas kronis pada sendi pergelangan kaki serta menurunkan performa atlet dalam jangka panjang. **Tujuan :** Mengetahui efektivitas penatalaksanaan fisioterapi dalam mengurangi nyeri, memperbaiki lingkup gerak sendi, meningkatkan kekuatan otot, serta mengoptimalkan kemampuan fungsional pada kasus *sprain ankle grade I*. **Metode :** Studi kasus dilakukan pada atlet sepak bola U-18 dengan diagnosis *sprain ankle sinistra grade I* di Dewa United. Penilaian fisioterapi dilakukan dengan *Numeric Rating Scale* (NRS) untuk mengidentifikasi tingkat nyeri, *Manual Muscle Testing* (MMT) untuk menilai kekuatan otot, *goniometer* untuk mengukur lingkup gerak sendi (LGS), serta *Foot and Ankle Ability Measure* (FAAM) untuk mengevaluasi kemampuan fungsional. Intervensi diberikan selama lima kali terapi. **Hasil :** Setelah lima kali terapi, pasien menunjukkan penurunan nyeri gerak dari skor 7 menjadi 3 berdasarkan (NRS), peningkatan kekuatan otot dari nilai 3 menjadi 5 berdasarkan (MMT), peningkatan ROM hingga batas normal, serta peningkatan skor FAAM 59,5 menjadi 77,1 yang menunjukkan perbaikan fungsional. **Kesimpulan :** Pelaksanaan fisioterapi dengan modalitas *Transcutaneous Electrical Nerve Stimulation, ultrasound, infrared* dan *resistance band* terbukti efektif dalam mempercepat proses pemulihan *sprain ankle grade I* melalui penurunan nyeri, meningkatnya kekuatan otot, lingkup gerak sendi serta meningkatnya kemampuan fungsional pasien.

Kata kunci : *Sprain Ankle Grade I*, Nyeri, Kekuatan Otot, Rom, Tens, Ultrasound, Infrared, Resistance Band, Faam

PHYSIOTHERAPY MANAGEMENT USING TRANSCUTANEOUS ELECTRICAL NERVE STIMULATION (TENS), ULTRASOUND, INFRARED, AND RESISTANCE BAND IN GRADE I ANKLE SPRAIN AT DEWA UNITED

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Abstract

Background: Grade I ankle sprain is defined as a mild trauma in the ankle joint area with a fairly high prevalence among soccer players, especially young athletes with high training intensity. This condition is generally caused by sudden plantar flexion and inversion movements resulting in ligament stretching without significant tearing. Although classified as mild, improper management can increase the risk of chronic ankle joint instability and reduce athletes' performance in the long term. **Objective:** To determine the effectiveness of physiotherapy management in reducing pain, improving range of motion, increasing muscle strength, and optimizing functional ability in cases of Grade I ankle sprain. **Methods:** This case study was conducted on an U-18 soccer athlete diagnosed with Grade I left ankle sprain at Dewa United. Physiotherapy assessment was carried out using the Numeric Rating Scale (NRS) to identify pain intensity, Manual Muscle Testing (MMT) to assess muscle strength, a goniometer to measure range of motion (ROM), and the Foot and Ankle Ability Measure (FAAM) to evaluate functional ability. The intervention was provided for five treatment sessions. **Results:** After five treatment sessions, the patient showed a reduction in movement pain from a score of 7 to 3 based on NRS, an increase in muscle strength from grade 3 to 5 based on MMT, improvement of ROM to normal limits, and an increase in FAAM score from 59.5 to 77.1, indicating functional improvement. **Conclusion:** Physiotherapy management using Transcutaneous Electrical Nerve Stimulation (TENS), ultrasound, infrared, and resistance band exercises proved effective in accelerating the recovery process of Grade I ankle sprain through pain reduction, increased muscle strength, improved range of motion, and enhanced functional ability of the patient.

Keywords : Ankle Sprain Grade I, Pain, Muscle Strength, ROM, Transcutaneous Electrical Nerve Stimulation, Ultrasound, Infrared, Resistance Band, Foot and Ankle Ability Measure