

## ABSTRAK

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**Judul Laporan Tugas Akhir Studi:** Penatalaksanaan Fisioterapi pada *Stiffness Knee Joint Dextra et causa Fracture of Femur Post Aff Plate* dengan *Infra Red, Transcutaneous Electrical Nerve Stimulation*, dan *Closed Kinetik Chain*

Terdiri dari 12 Lampiran depan, 89 Halaman, 17 Tabel, 17 Gambar, 8 Lampiran akhir

**Latar Belakang:** *Stiffness Knee Joint post aff plate* merupakan suatu kualitas kekakuan atau infleksibilitas, imobilitas dan konsolidasi sebuah sendi yang disebabkan oleh penyakit, cidera atau tindakan bedah. *Stiffness joint* adalah akibat dari Oedem dan fibrasi pada kapsul ligamen dan otot sekitar sendi atau perlengketan dari jaringan lunak satu sama lain. Keadaan ini bertambah parah jika imobilisasi berlangsung lama dan sendi di pertahankan dalam posisi ligamen terpendek. Problematika yang di alami pasien yakni kelemahan atau gangguan seperti keluhan adanya nyeri, spasme otot, penurunan kekuatan otot, penurunan lingkup gerak sendi, dan gangguan aktifitas fungsional seperti (berdiri ke jongkok, jongkok ke berdiri, dan berjalan dengan jarak yang jauh). Tujuan Penulisan karya tulis ilmiah ini adalah untuk mengetahui Penatalaksanaan Fisioterapi pada *Stiffness Knee Joint et causa Fraktur of Femur* dengan modalitas *Infra Red, Transcutaneus Electrical Nerve Stimulation*, dan *Closed Kinetik Chain*.

**Metode:** Karya Tulis Ilmiah ini bersifat studi kasus, mengangkat kasus pasien dan mengumpulkan data melalui proses fisioterapi. Modalitas yang diberikan adalah *Infra Red, Transcutaneus Electrical Nerve Stimulation*, dan *Closed Kinetik Chain*.

**Hasil Penatalaksanaan:** Setelah dilakukan fisioterapi sebanyak empat kali didapatkan hasil adanya pengurangan rasa nyeri, spasme, peningkatan kekuatan otot dan lingkup gerak sendi, serta peningkatan kemampuan fungsional pasien.

**Kesimpulan:** *Infra Red, Transcutaneus Electrical Nerve Stimulation* dan *Closed Kinetik Chain* yang diberikan pada pasien dapat membantu menurunkan nyeri, spasme, meningkatkan kekuatan otot, lingkup gerak sendi, dan kemampuan aktifitas fungsional pasien.

**Kata Kunci:** *Stiffness knee joint, Fracture femur, Infra red, TENS, Closed Kintek Chain*.

**Referensi:** 59 (2015-2025).

## ***ABSTRACT***

**Name of Student:** Rachel Rahma Widiya

**Title of Final Project Study Report:** Physiotherapy Management of Stiffness Knee Joint Dextra et causa Fracture of Femur Post Aff Plate with Infra Red, Transcutaneus Electrical Nerve Stimulation, and Closed Kinetic Chain

It consists of 12 Front attachment, 89 Page, 17 Table, 17 Figure, 8 Final appendix

**Background:** Knee joint stiffness post aff plate is a quality of stiffness or inflexibility, immobility and consolidation of a joint caused by disease, injury or surgery. Joint stiffness is a result of oedema and fibrillation of the ligament capsule and muscles around the joint or adhesion of soft tissues to each other. This situation worsens if immobilization lasts a long time and the joint is maintained in the shortest ligament position. The problems experienced by patients are weakness or disorders such as complaints of pain, muscle spasm, decreased muscle strength, decreased joint range of motion, and impaired functional activities such as (standing to squatting, squatting to standing, and walking long distances). The purpose of writing this scientific paper is to find out the Physiotherapy Management of Knee Joint Stiffness et causa Fracture of Femur with Infra Red, Transcutaneous Electrical Nerve Stimulation, and Closed Kinetic Chain modalities.

**Methods:** This scientific paper is a case study, raising patient cases and collecting data through the physiotherapy process. The modalities given are Infra Red, Transcutaneus Electrical Nerve Stimulation, and Closed Kinetic Chain.

**Results:** After physiotherapy was performed four times, the results showed a reduction in pain, spasm, increased muscle strength and joint range of motion, and improved the patient's functional abilities.

**Conclusion:** Infra Red, Transcutaneus Electrical Nerve Stimulation and Closed Kinetic Chain given to patients can help reduce pain, spasm, increase muscle strength, joint range of motion, and the patient's functional activity ability.

**Keywords:** Stiffness knee joint, Fracture femur, Infra red, TENS, Closed Kinteik Chain.

**Reference:** 59 (2015-2025)