INTISARI

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APLIKASI FISIOTERAPI *INFRA RED RADIATION* DAN *HOLD RELAX EXERCISE* PADA KONDISI *POST OP. OPEN REDUCTION INTERNAL FIXATION CLOSE FRACTURE* 1/3 *DISTAL HUMERUS SINISTRA*

Terdiri dari 5 BAB, 73 Halaman, 9 Gambar, 9 Tabel
Latar Belakang dan Tujuan Penelitian : Kondisi *post* operasi ORIF pada *fracture* adaLah keadaan pasien setelah menjalani prosedur pembedahan *Open Reduction and Internal Fixation* (ORIF) pada bagian *distal* tulang *humerus*. Tujuan dari penulisan Karya Tulis Ilmiah ini mengetahui pengaruh modalitas *Infra Red Radiation* terhadap penurunan derajat nyeri dan *Hold Relax Exercise* terhadap peningkatan lingkup gerak sendi pada kondisi *Post* ORIF *Close Fracture* 1/3 *Distal Humerus Sinistra*.
Metode Penelitian yang Dipakai : Pada laporan karya tulis ilmiah ini, penulis memberikan tindakan fisioterapi pada Nn. E berupa modalitas IRR yang berguna untuk mengurangi derajat nyeri dan *Hold Relax Exercise* yang berguna untuk meningkatan lingkup gerak sendi yang terbatas pada kondisi *Post Op.* ORIF *Close Fracture* 1/3 *Distal Humerus Sinistra,* untuk isntrumen pengukuran menggunakan *VAS* dan *Goneometer,* Tindakan terapi yang dilakukan sebanyak 4 kali terhitung dari tanggal 26 Mei, 2, 5, dan 12 Juni 2025.
Hasil Penelitian : IRR dan *Hold Relax Exercise* merupakan modalitas fisioterapi untuk menangani kasus kondisi *Post Op.* ORIF *Close Fracture* 1/3 *Distal Humerus Sinistra,* setelah dilakukan tindakan fisioterapi sebanyak 4 kali. Pada laporan didapatkan hasil berupa derajat nyeri berkurang dengan hasil T1 nyeri diam : 0/10, nyeri gerak : 5,6/10, nyeri tekan : 4,8/10 sampai T4 dengan hasil nyeri diam : 0/10, nyeri gerak : 3,9/10, nyeri tekan : 2,7/10 dan peningkatan lingkup gerak sendi pada elbow sinistra aktif dan pasif dengan hasil T1 Fleksi : 60^0, Ekstensi : 5^0, Pronasi : 80^0, Supinasi : 90^0, sampai T4 Fleksi : 65^0, Ekstensi : 2^0, Pronasi : 80^0, Supinasi : 90^0. *Infra Red Radiation* membantu mengurangi nyeri dengan mengaktifkan reseptor panas *superfisial* yang memodulasi transmisi saraf sensorik. *Hold Relax* meningkatkan lingkup gerak sendi pasca operasi melalui pengurangan spasme otot dan peningkatan fleksibilitas jaringan lunak setelah kontraksi isometrik.
Kesimpulan : setelah diberikan rindakan fisioterapi sebanyak 4 kali, didapatkan hasil berupa penurunan derajat nyeri dan peningkatan lingkup gerak sendi dengan pemberian modalitas IRR dan *Hold Relax Exercise.*
Kata Kunci : ***Post Op. Open Reduction Internal Fictation Fracture 1/3 Distal Humerus Sinistra, Infra Red Radiation, Hold Relax Exercise, Nyeri, Keterbatasan Lingkup Gerak Sendi.***

ABSTRACT

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APPLICATION OF INFRARED RADIATION PHYSIOTHERAPY AND HOLD RELAX EXERCISE IN POST OPERATIVE CONDITIONS OPEN REDUCTION INTERNAL FIXATION OF THE LEFT DISTAL HUMERUS CLOSE FRACTURE

This scientific paper consists of 5 chapters, 73 pages, 9 figures, and 9 tables.
Background and Objective: *Post-operative ORIF condition in fracture is a state of patients after undergoing Open Reduction and Internal Fixation (ORIF) surgery to stabilize the fractured bone. In this case, the fracture occurred in the distal humerus. The objective of this study was to determine the effect of Infrared Radiation (IRR) on pain reduction and Hold Relax Exercise on the improvement of the range of motion (ROM) in a patient with post ORIF close fracture of the one-third distal left humerus.*
Method: *Physiotherapy intervention was given to patient Ms. E in the form of IRR to reduce pain and Hold Relax Exercise to improve the limited ROM. Pain was measured using the Visual Analogue Scale (VAS), and ROM was measured with a* ***goniometer****. The therapy was carried out 4 times on May 26, June 2, June 5, and June 12, 2025.*
Result: *After 4 therapy sessions, the results showed a reduction in pain and an improvement in ROM of the left elbow. Resting pain remained at 0/10, movement pain decreased from 5.6/10 to 3.9/10, and pressure pain decreased from 4.8/10 to 2.7/10. ROM improved with flexion increasing from 60° to 65° and extension from 5° to 20°, while pronation remained 80° and supination 90°. IRR was effective in reducing pain by activating superficial thermal receptors that modulate sensory nerve transmission, while Hold Relax Exercise improved ROM through reducing muscle spasm and enhancing soft tissue flexibility following isometric contraction.*
Conclusion: *Physiotherapy intervention using IRR and Hold Relax Exercise over 4 sessions was effective in reducing pain and improving the range of motion in a patient with post ORIF close fracture of the one-third distal left humerus.*
Keywords: *Post ORIF Close Fracture 1/3 Distal Humerus Sinistra, Infrared Radiation, Hold Relax Exercise, Pain, Range of Motion.*