

ABSTRAK

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Intervensi Penguatan Quadriceps Isometrik Terhadap Kekuatan Otot Pada Pasien Post TKR di Ruang Orthopedi RSD dr. Soebandi

xiii+100 halaman+19 tabel+6 gambar+8 lampiran

Abstrak

Pendahuluan : Osteoarthritis (OA) adalah penyakit sendi yang dapat menyebabkan kerusakan lutut berat, yang sering ditangani dengan prosedur Total Knee Replacement (TKR). Salah satu tantangan utama pasien pasca-TKR adalah lemahnya otot quadriceps, yang menghambat pemulihan dan menjadikan mobilisasi dini sebagai bagian penting dari rehabilitasi. Namun, banyak pasien mengalami ketakutan psikologis terhadap mobilisasi dini, seperti takut nyeri atau kegagalan implan, yang dapat menghambat kesiapan mereka untuk bergerak lebih lanjut meskipun kondisi fisik sudah memungkinkan. Penguatan *quadriceps isometrik* merupakan salah satu pelatihan yang dapat dilakukan untuk meningkatkan kekuatan otot tanpa melibatkan gerakan besar.

Tujuan : Penelitian ini bertujuan untuk mengetahui efektivitas penguatan *quadriceps isometrik* terhadap kekuatan otot pada pasien post TKR di Ruang Orthopedi RSD dr. Soebandi.

Metode : Penelitian ini menggunakan desain penelitian studi kasus pada 3 pasien post TKR yang mengalami gangguan mobilitas fisik didapatkan berdasarkan hasil pengukuran *Manual Muscle Testing* (MMT). Intervensi penguatan *quadriceps isometrik* diberikan selama 3 hari dengan latihan bertahap.

Hasil : Hasil penelitian dari 3 pasien post TKR menunjukkan adanya peningkatan kekuatan otot setelah diberikan intervensi penguatan *quadriceps isometrik*, dengan peningkatan skor MMT 1 hingga 2 poin. Selain itu 3 pasien juga mengatakan merasa lebih berani melakukan mobilisasi dini dengan menerapkan latihan penguatan *quadriceps isometrik*.

Diskusi : Latihan Penguatan *Quadriceps Isometrik* terbukti efektif dalam peningkatan kekuatan otot pada pasien post TKR dengan gangguan mobilitas fisik.

Kata kunci : Latihan penguatan *quadriceps isometrik*, intervensi post TKR, *Total Knee Replacement*, *Osteoarthritis*.

ABSTRACT

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Isometric Quadriceps Strengthening Intervention on Muscle Strength in Post-TKR Patients in the Orthopedic Ward of RSD dr. Soebandi

xiii+100 pages+19 tables+6 pictures+8 attachments

Abstract

Introduction: Osteoarthritis (OA) is a joint disease that can cause severe knee damage and is often treated with a Total Knee Replacement (TKR) procedure. One of the main challenges for post-TKR patients is quadriceps muscle weakness, which hinders recovery and highlights the importance of early mobilization as part of rehabilitation. However, many patients experience psychological barriers to early mobilization, such as fear of pain or implant failure, which may prevent them from progressing in mobility despite being physically capable. Isometric quadriceps strengthening is one type of exercise that can be performed to improve muscle strength without involving large joint movements.

Objective: This study aims to determine the effectiveness of isometric quadriceps strengthening on muscle strength in post-TKR patients in the Orthopedic Ward of RSD dr. Soebandi.

Methods: This study employed a case study design involving three post-TKR patients experiencing impaired physical mobility, as determined by the results of Manual Muscle Testing (MMT). The isometric quadriceps strengthening intervention was administered over a period of three days with a gradual exercise progression.

Results: The results of the study on three post-TKR patients showed an improvement in muscle strength following the isometric quadriceps strengthening intervention, with an increase in MMT scores by 1 to 2 points. In addition, all three patients reported feeling more confident in performing early mobilization after engaging in isometric quadriceps strengthening exercises.

Discussion: Isometric quadriceps strengthening exercises have been proven effective in improving muscle strength in post-TKR patients with impaired physical mobility.

Keywords: Isometric quadriceps strengthening exercise, post-TKR intervention, Total Knee Replacement, Osteoarthritis.