

Osteoarthritis of the Knee: Does Physical Therapy Intervention Alone Improve Functional Outcome Scores of the Timed Up and Go More Than Total Knee Arthroplasty?

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Introduction

Osteoarthritis affects a large population of adults and is the leading cause of disability in America, but has few effective treatments. The purpose of this review was to evaluate the effectiveness of physical therapy intervention versus total knee replacement on the functional outcome of the timed up and go test.

Case Description

Miss R, a 75-year-old female underwent a total knee arthroplasty to her left knee. She had physical therapy rehabilitation post-operatively at a skilled nursing facility for 26 days.

Outcomes

Miss R was discharged home to continue rehabilitation in an outpatient setting. During her rehabilitation she had progressed her functional deficits enough to return to her home and live independently. She was ambulating with a cane over 1000 feet and was independent for all transfers, bed mobility, and activities of daily living.

Methods

A literary review was conducted in three databases of PubMed, Pedro, and CINHALL. Keywords included: Osteoarthritis, knee, total knee arthroplasty, physical therapy modalities, timed up and go. 8 total articles were analyzed in depth.

Findings

Several studies revealed that overall timed up and go scores improved for patients with osteoarthritis that underwent a total knee arthroplasty or physical therapy interventions,

however the improvements were often found to be not statistically significant or were not equivalent to healthy age-matched adult controls.

Conclusion

Physical therapy alone does improve functional scores for patients with knee osteoarthritis, however pain symptoms are often not improved and patients will choose a surgical method even with good outcomes with physical therapy. Patients who undergo a total knee arthroplasty do improve functional scores from immediately post-surgery, but rarely attain better than before surgery scores or scores similar to age matched controls with current rehabilitation standard of care methods post surgery. Research is suggesting a focus on quadriceps strengthening to improve functional scores for patients post total knee arthroplasty.