Muscle Energy Techniques as Part of a Comprehensive Plan of Care for a Patient with Hip and Knee Osteoarthritis: A Case Report

Daniel White SPT
Department of Physical Therapy, University of New England, Portland ME

Background

- Osteoarthritis (OA) is a chronic musculoskeletal condition which affects over 27 million Americans.[1]
- The hip and knee joints are most affected by OA.[3,5,6]
- Many risk factors are modifiable in the development of OA.[3]
- While muscle energy techniques (MET) are commonly used to treat lumbopelvic dysfunction, limited evidence exists for its use as part of a comprehensive plan of care in patients with OA.[6]

Purpose

- The purpose of this case report was to describe the management of a patient with mild/moderate OA utilizing a comprehensive plan of care including MET.

Description

- Patient was a 62-year-old female who worked as an adult day-care coordinator
- Patient was referred to PT with right hip and left knee OA
- Patient reported an impaired ability to complete work-related demands as well as functional activities
- Impairments included: Lower Extremity (LE) pain, decreased LE range of motion (ROM)/strength, and loss of functional activity tolerance
- Interventions: MET, neuromuscular re-education, ROM, therapeutic exercise, therapeutic activities, soft tissue massage, and joint mobilization

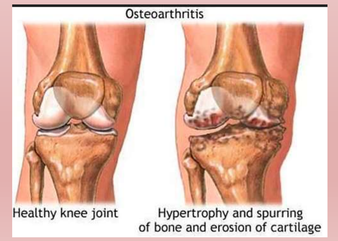


Figure 1- Visual Example of OA in the Knee

Postural Screen

Figure 2- Frontal Squat View

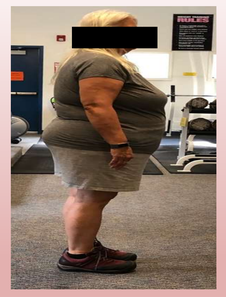


Figure 3- Sagittal View

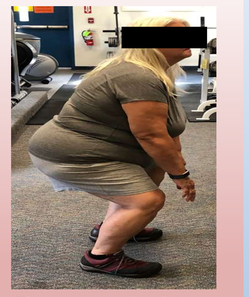


Figure 4- Sagittal Squat View

Interventions

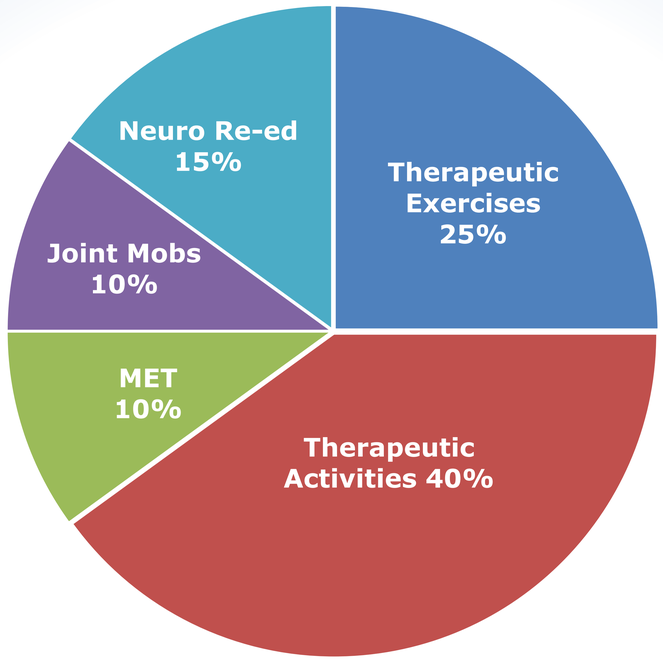


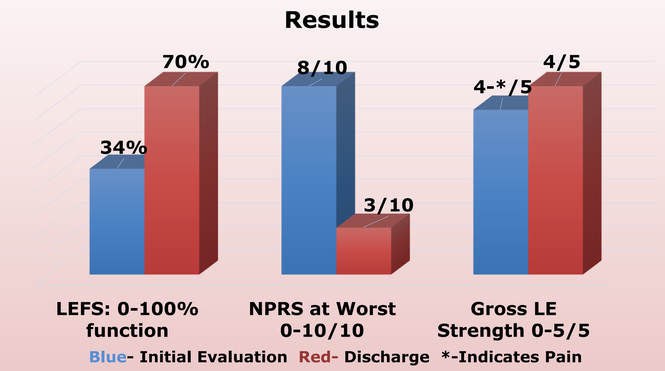
Figure 5- Average amount of time spent per type of intervention in a given session

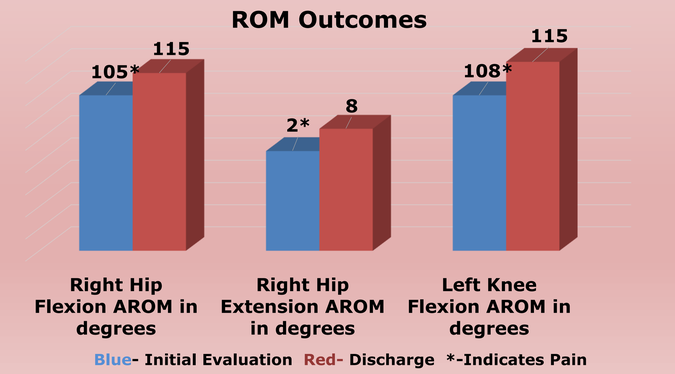
Muscle Energy

Figure 6- Anterior Innominate Rotation MET

Figure 7- Posterior Innominate Rotation MET

Outcomes





Conclusion

- Previous literature has investigated MET in relation to pain relief in LBP rather than functional outcome improvement in patients with OA.[6]
- A comprehensive plan of care that utilized MET demonstrated improved activity tolerance, ROM, gait, and strength for patients with OA.[2,4]
- Limited literature is available on the most effective use of MET for treating OA in the hip and knee which suggests further research is needed for this specific treatment in a comprehensive plan of care.

Acknowledgments

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