

CASE REPORT

A NOVEL APPROACH FOR THE REVERSAL OF CHRONIC APPARENT HAMSTRING TIGHTNESS: A CASE REPORT

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ABSTRACT

Background and Purpose: Movement dysfunction in the trunk and lower extremity (e.g., apparent hamstring tightness) may produce pain, as well as decrease range of motion, function, and performance in athletes. Novel treatments not frequently studied in the literature, such as Total Motion Release® (TMR®) and instrument-assisted soft-tissue mobilization (IASTM), have anecdotal claims of immediate, gross gains of mobility that far exceed conventionally reported results. The purpose of this case report was to examine the efficacy of TMR® in treating an apparent tissue tightness/extensibility dysfunction and to determine if IASTM would improve outcomes if TMR® techniques failed to produce maintained improvement.

Case Description: A 27-year old former competitive speed walker presented with a chronic history of bilateral pain and posterior leg tightness. The patient met the criteria for diagnosis of a bilateral tissue extensibility dysfunction in the posterior lower extremity and was treated with TMR® and IASTM (Técnica Gavilán®, Tracy, California, United States).

Outcomes: After the first week of treatment, the patient increased her sit and reach by 5cm and her active straight leg raise (ASLR) by an average of 31.5° bilaterally. Following the second week of treatment, the patient experienced an additional increase in sit and reach and ASLR. At discharge, the patient displayed negative 90/90 Active Knee Extension, Tripod, and Slump tests bilaterally, normalized ASLR and a resolution of her complaints. Follow-up examinations completed at one month and three months post-discharge indicated maintenance of the outcomes without any additional interventions.

Discussion: The subject in this case report demonstrated the potential use of TMR® in classifying apparent hamstring tightness and provided evidence to support the use of TMR® and IASTM in addressing mobility deficits associated with hamstring inflexibility/tightness. Based on these findings, clinicians should consider the use of TMR® to improve classification and treatment of patients with a chief complaint of hamstring “tightness.”

Level of Evidence: Level 4; single case report.

Key Words: Apparent hamstring tightness, tissue extensibility dysfunction, total motion release

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