

## عنوان مقاله:

Effect of ۱۲-week IASTM and Electrotherapy on Gait Biomechanics and EMG in a Patient with Excessive Ankle Stiffness: A Case Study

## محل انتشار:

اولین همایش بین المللی تربیت بدنی، سلامت و علوم ورزشی (سال: 1402)

تعداد صفحات اصل مقاله: 26

## نویسندگان:

Fateme Khorramroo - *Department of Sport Injuries and Biomechanics, Faculty of Sport Sciences and Health, University of Tehran, Iran.*; b*Department of Orthopedic, Helsingborg Hospital, Helsingborg, Sweden*

Seyed Hamed Mousavi - *Department of Sport Injuries and Biomechanics, Faculty of Sport Sciences and Health, University of Tehran, Iran.*; b*Department of Orthopedic, Helsingborg Hospital, Helsingborg, Sweden*

Hooman Minoonejad - *Department of Sport Injuries and Biomechanics, Faculty of Sport Sciences and Health, University of Tehran, Iran.*; b*Department of Orthopedic, Helsingborg Hospital, Helsingborg, Sweden*

Masoud Sorkhabi - *Department of Sport Injuries and Biomechanics, Faculty of Sport Sciences and Health, University of Tehran, Iran.*; b*Department of Orthopedic, Helsingborg Hospital, Helsingborg, Sweden*

## خلاصه مقاله:

Effect of ۱۲-week IASTM and Electrotherapy on Gait Biomechanics and EMG in a Patient with Excessive Ankle Stiffness: A Case Study  
Purpose: This case study aimed to investigate the effects of a ۱۲-week intervention of instrument-assisted soft tissue mobilization (IASTM) and Electrotherapy on gait kinetics, kinematics, and electromyography (EMG) in a patient with excessive ankle stiffness.  
Methodology: A ۴۱-year-old female with post-operation complications including decreased right ankle range of motion (ROM) and strength underwent a ۱۲-week of IASTM and Electrotherapy. Gait analysis was performed before and after the intervention.  
Discussion and Conclusion: The results showed significant improvements in ankle ۳ dimensional (۳D) ROM, power, Moments, velocity, cadence, step length, GRF and decreased stiffness, single and double support time. Ankle dorsiflexion ROM was not significantly increased during gait. Findings suggest that a ۱۲-week intervention of IASTM and electrotherapy can improve gait mechanics and reduce muscle activity in a patient with excessive ankle stiffness.

## کلمات کلیدی:

electrical stimulation; muscle activity; spatiotemporal, kinetic; kinematic

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1751082>



