Methods

Lower RTD0-50ms is associated with lesser MVIC torque

Results

Quadriceps dysfunction is the principle impairment after ACL reconstruction (ACLR)
• This is a modifiable risk factor in the pathogenesis of post-traumatic osteoarthritis.
• Impairments within corticospinal and intracortical pathways may contribute to neuromechanical changes following ACLR.
• Nervous system changes are theorized to perpetuate long-term muscular dysfunction.
• Understanding the relationships between neurological adaptations and unique neuromechanical characteristics will provide insight about the functional implications of impaired corticomotor function.

Purpose

To describe the interrelationships between quadriceps corticomotor and neuromechanical function in patients after ACLR and healthy controls

Statistical Analysis

Pearson’s r correlations were used to assess the relationships between each measure of corticomotor and neuromechanical function.

Conclusions

Lower corticospinal excitability and greater intracortical inhibition were associated with a lower rate of torque development during the early phase of force generation in patients after ACLR

References


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