

players reported tendinopathy using the OSTRC-P, suggesting that patellar tendinopathy was not a primary knee pain presentation in this jumping cohort. Pain location rather than presence or severity of pain alone may better describe the clinical presentations of AKP in jumping athletes.

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S112

Electromyography recordings of the tensor fascia latae muscle during dynamic tasks: A comparison of surface and fine-wire electrodes

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Introduction: The tensor fascia latae (TFL) is a small fusiform muscle that is active during flexion, abduction, and internal rotation of the hip. Surface electrodes are commonly used to record electromyography (EMG) from the TFL. Surface electrodes are susceptible to crosstalk from surrounding muscles. This study aimed to compare the patterns of TFL EMG recorded using surface and fine-wire methods during dynamic tasks.

Methods: Eight healthy and physically active volunteers (5 females, 3 males; mean \pm SD age 28 ± 6 years; height 1.70 ± 0.07 m; body mass 65.6 ± 10.3 kg; BMI 22.8 ± 3.4 kg/m²) participated in this study. TFL EMG was concurrently recorded with surface and fine-wire electrodes. Participants performed five trials of a step-up and a step-down task wearing their preferred footwear. EMG signals for all trials were visually inspected for artefacts. EMG data were amplitude-normalised to the maximum voluntary isometric contractions (MVIC, expressed as %). Statistical parametric mapping (SPM) was used to statistically compare the patterns of activation between electrode types.

Results: Fine-wire recordings were technically more problematic than surface recordings (e.g., more frequent contamination by movement artefact), but acceptable for most participants. The difference between the pattern of TFL EMG from surface and fine-wire recordings varied between participants in both tasks. Some participants showed an additional major peak with surface recordings that was not apparent in the fine-wire recordings, and others showed the opposite. SPM revealed one supra-threshold cluster (between 10-15%) that exceeded the critical threshold ($t^* = 3.516$, $p = 0.013$) during the step-up task. The MVIC normalised amplitude of surface recordings was significantly greater than fine-wire recordings during this period.

Discussion: Although the pattern of TFL activity was variable between participants for both electrode types, surface recordings revealed activity that was absent in the fine-wire recordings, which strongly suggests contamination of surface recordings by activity from adjacent muscles (crosstalk). However, some participants showed opposite results (higher activity with fine-wire recordings than surface). For studies that aim to specifically understand the activation of TFL, fine-wire recordings are recommended considering the limitations of this technique.

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S114

Posterior ankle impingement syndrome clinical features are not associated with imaging findings in elite ballet dancers and athletes

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Introduction: Posterior ankle impingement syndrome (PAIS) commonly presents in elite ballet and some athletic populations. Imaging is frequently used as a diagnostic tool, and imaging findings can precipitate surgical intervention. The relationship between MRI findings and clinical presentation in PAIS is unclear. This study assessed the association between clinical features and MRI findings in PAIS and compared imaging and clinical findings between participants with and without a clinical diagnosis of PAIS.

Methods: Eighty-two male (54%) and female participants comprising elite ballet dancers (N=43), cricket fast bowlers (N=24) and soccer players (N=15) completed clinical assessment (posterior ankle pain, passive ankle plantarflexion test, single leg heel raise capacity test), patient reported outcome measures (Oslo Sports Trauma Research Center Overuse Injury Questionnaire, Foot and Ankle Ability Measure Sports Subscale, and Cumberland Ankle Instability Tool (CAIT)), and underwent unilateral ankle 3.0T MRI. Images were assessed for findings associated with PAIS. A subgroup of participants with a positive clinical PAIS diagnosis (posterior ankle pain plus positive ankle plantarflexion test) (N=10) were age, sex, activity, and ankle-matched to an asymptomatic participant, and clinical and imaging findings were compared between groups.

Results: Imaging findings commonly associated with PAIS were prevalent despite clinical status, and were not associated with posterior ankle pain, a positive ankle plantarflexion test, or patient reported outcome measures. Imaging findings did not differ between PAIS-positive and PAIS-negative groups. The PAIS group achieved significantly fewer repetitions on single leg heel raise capacity testing ($P = 0.02$) and were more symptomatic for functional ankle instability according to CAIT scores ($P = 0.004$) than the asymptomatic group.

Discussion: The lack of association between imaging findings and clinical presentation questions the role of imaging in the diagnosis and management of PAIS. It is unclear whether PAIS develops following functional (strength and/or stability) deficit, or whether strength and stability deficits are outcomes of PAIS. Clinicians should continue to rely primarily on clinical assessment in the diagnosis and management of patients with PAIS.

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S118

Prevalence, seasonal variation and nature of illness in youth football players: a prospective cohort study

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