

ORIGINAL RESEARCH

THE CLINICAL, FUNCTIONAL AND BIOMECHANICAL PRESENTATION OF PATIENTS WITH SYMPTOMATIC HIP ABDUCTOR TENDON TEARS

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ABSTRACT

Background: Hip abductor tendon (HAT) tearing is commonly implicated in greater trochanteric pain syndrome (GTPS), though limited information exists on the disability associated with this condition and specific presentation of these patients.

Purpose: To describe the clinical, functional and biomechanical presentation of patients with symptomatic HAT tears. Secondary purposes were to investigate the association between these clinical and functional measures, and to compare the pain and disability reported by HAT tear patients to those with end-stage hip osteoarthritis (OA).

Study Design: Prospective case series.

Methods: One hundred forty-nine consecutive patients with symptomatic HAT tears were evaluated using the Harris (HHS) and Oxford (OHS) Hip Scores, SF-12, an additional series of 10 questions more pertinent to those with lateral hip pain, active hip range of motion (ROM), maximal isometric hip abduction strength, six-minute walk capacity and 30-second single limb stance (SLS) test. The presence of a Trendelenburg sign and pelvis-on-femur (POF) angle were determined via 2D video analysis. An age matched comparative sample of patients with end-stage hip OA was recruited for comparison of all patient-reported outcome scores. Independent t-tests investigated group and limb differences, while analysis of variance evaluated pain changes during the functional tests. Pearson's correlation coefficients investigated the correlation between clinical measures in the HAT tear group.

Results: No differences existed in patient demographics and patient-reported outcome scores between HAT tear and hip OA cohorts, apart from significantly worse SF-12 mental subscale scores ($p=0.032$) in the HAT tear group. Patients with HAT tears demonstrated significantly lower ($p<0.05$) hip abduction strength and active ROM in all planes of motion on their affected limb. Pain significantly increased throughout the 30-second SLS test for the HAT tear group, with 57% of HAT tear patients demonstrating a positive Trendelenburg sign. POF angle during the test was not significantly associated with pain.

Conclusion: Patients with symptomatic HAT tears demonstrate poor function, and report pain and disability similar to or worse than those with end-stage hip OA. This information better defines and differentiates the presentation of these patients.

Level of Evidence: Level 3 case-controlled study, with matched comparison

Keywords: Assessment, clinical outcomes, hip abductor tears, patient presentation

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