ABSTRACT

Background: Insertional tendinopathy is likely caused by different pathologies. This variation could account for the recalcitrant nature of this condition to treatment. Ultrasound imaging may assist in identifying underlying pathology to inform patient management.

Hypothesis/Purpose: The primary purpose of this study was to quantify the presence of underlying pathology using ultrasound in individuals with a clinical diagnosis of insertional Achilles tendinopathy. Secondarily, we sought to examine the relationship of abnormal ultrasound findings to age and body mass index (BMI).

Study Design: Cross-sectional study

Methods: Fifty-six individuals with insertional tendinopathy were included in this study. B-mode ultrasound imaging was used to descriptively and quantitatively describe tendon pathology.

Results: A greater proportion of bone defect (p<0.001), intratendinous calcifications (p=0.01) and midportion tendinosis (p<0.001) were observed on the injured side compared to the uninjured side. Higher BMI was associated with presence of bone deformity, intratendinous calcifications and distal tendinosis (p=0.001-0.04); adding age did not significantly improve the regression model.

Conclusion: Patients with insertional tendinopathy present with multiple underlying pathologies. This may account for variable response to treatment. It may be helpful to include imaging to better identify underlying pathology when trying to determine an appropriate treatment strategy.

Level of Evidence: Level 3

Key Words: ankle, imaging, lower leg, tendinopathy, tendinosis, tendon, movement system

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