

Abstract

This study evaluates the use of ultrasound imaging to assess both acute and

compared to the inflammatory group.

structural

Correlation with clinical symptoms there was a significant correlation between ultrasound findings and clinical symptoms. Increased tendon thickness and vascularity were associated with higher pain scores and functional limitations. Chronic degenerative changes, including tendinosis and partial tears, correlated with more severe and persistent symptoms. Ultrasound imaging in diagnosing achilles tendon pathologies our study demonstrates that ultrasound imaging is an effective tool for distinguishing between acute inflammatory changes and chronic degenerative conditions of the Achilles tendon. The ability to visualize increased tendon thickness and vascularity provides valuable information for diagnosing inflammatory conditions, while the detection of structural disruptions such as partial tears helps identify chronic tendinosis. Clinical implications the results underscore the importance of using ultrasound to guide treatment decisions. For patients with inflammatory changes, targeted anti-inflammatory treatments and conservative management may be appropriate. Conversely, individuals with chronic degenerative changes or partial tears may benefit from more intensive interventions, such as physical therapy or surgical options, depending on the severity of the damage.

Eq o rctcvkxg" cpcn {uku" cpf" o qfgn" xcnkfcvkqp" vjg" uvwf {ou" hkpfpkiu align with previous research highlighting the utility of ultrasound in tendon evaluation. The differentiation between inflammatory and degenerative conditions using ultrasound is consistent with established diagnostic criteria and supports the reliability of imaging in clinical practice. Limitations and future research this study is limited by its cross-sectional design and the variability in clinical presentation among participants [10]. Longitudinal studies could provide further insights into the progression of tendon disorders and the effectiveness of different treatment modalities. Additionally, expanding the study to include a larger and more diverse population may enhance the generalizability of the findings. Conclusion ultrasound imaging effectively assesses both acute and chronic conditions affecting the Achilles tendon, offering valuable insights into the nature and severity of tendon pathologies. By distinguishing between inflammatory and degenerative changes, ultrasound aids in developing targeted treatment strategies and improving patient outcomes in the management of Achilles tendon disorders.

Conclusion

This study demonstrates that ultrasound imaging is a highly effective tool for evaluating Achilles tendon pathologies, particularly in distinguishing between acute inflammatory changes and chronic degenerative conditions. Our findings reveal that ultrasound can accurately identify increased tendon thickness, vascularity, and