

ROLE OF ULTRASOUND IMAGING IN EVALUATION OF TENDO ACHILLES LESIONS

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INTRODUCTION

Achilles tendon disorders are among the more frequent maladies encountered in sports medicine. They are commonly associated with overuse injuries and can affect the quality of movement leading to thickening, vascularization, and hypo echogenicity of the diseased tendon.

There are various types of overuse tendon injuries include tendinopathies, peri tendinitis, and tendon rupture. Increased tendon thickness is the most mentioned indicator of tendinopathies.

The US performed has become increasingly important in the assessment of ligaments and tendons around the ankle because it is low cost, fast, readily available.

AIM OF THE WORK

The aim of the work was to assess the role of ultrasound imaging in the evaluation of tendon Achilles lesions

SUBJECTS AND METHODS

PATIENTS

The study was conducted on 30 patients with Tendo Achilles lesions referred to Radiology Department of Alexandria University Main Hospital, during the period from January 2020 to January 2021.

METHODS

All patients that fulfill the inclusion criteria were subjected to Full history taking, Clinical examination, Ultrasonographic examination, including resting axial and sagittal planed superficial high-frequency transducer probe examined series, and further Dynamic state examination, and Plain digital radio-graph and MRI examination of the Ankle joint when ever clinically indicated.

RESULTS

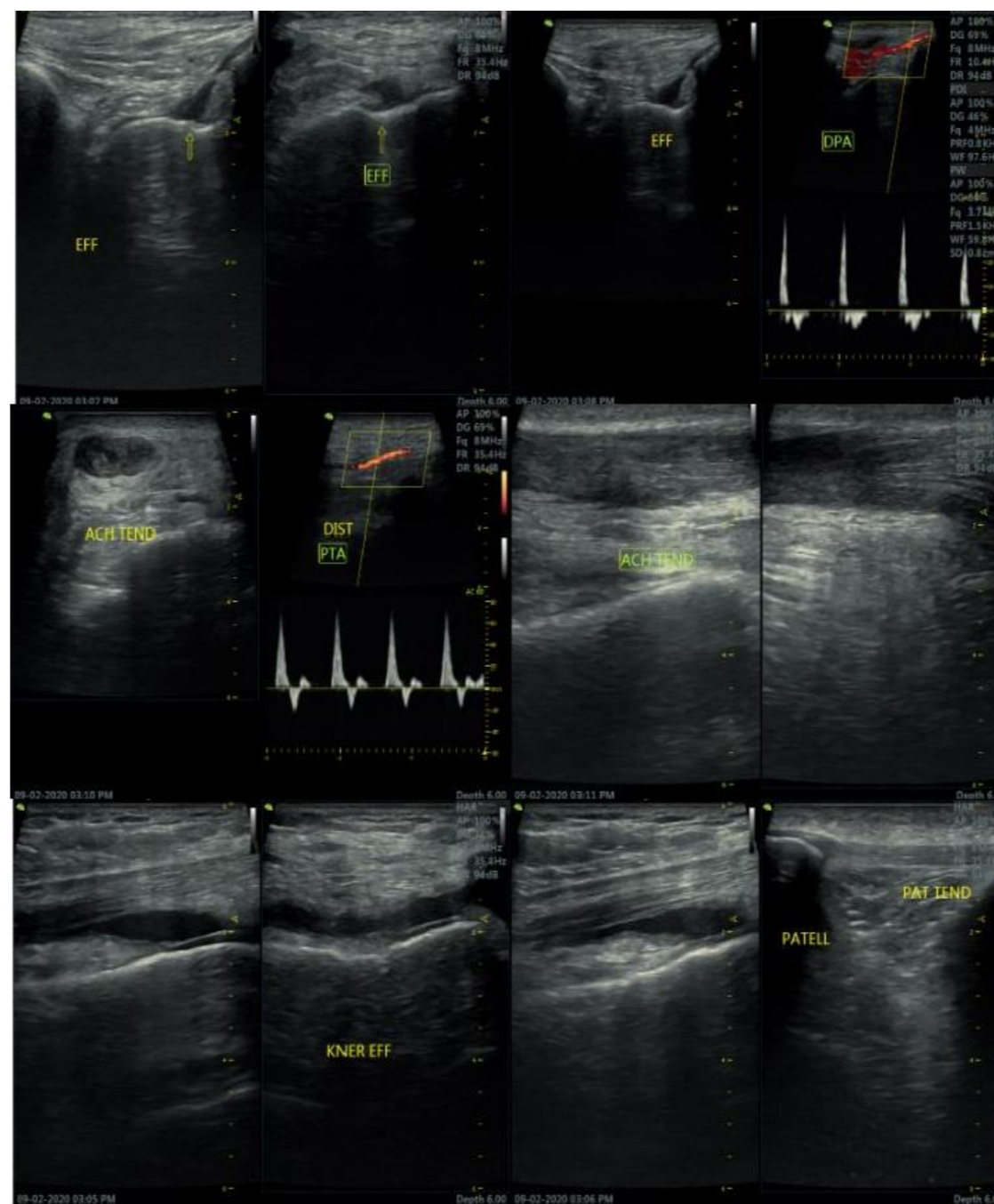


Figure 1: US of the Achilles tendon: Evidence of partial (intrasubstance) tear of Achilles tendon about 2.5 cm above its insertion with calcaneus bone, associated with thickening and diffuse edematous myotendinous fibers, but no hematoma formation or collection.
Diagnosis: Partial right Achilles tendon tear.

The ultrasound findings in the study population

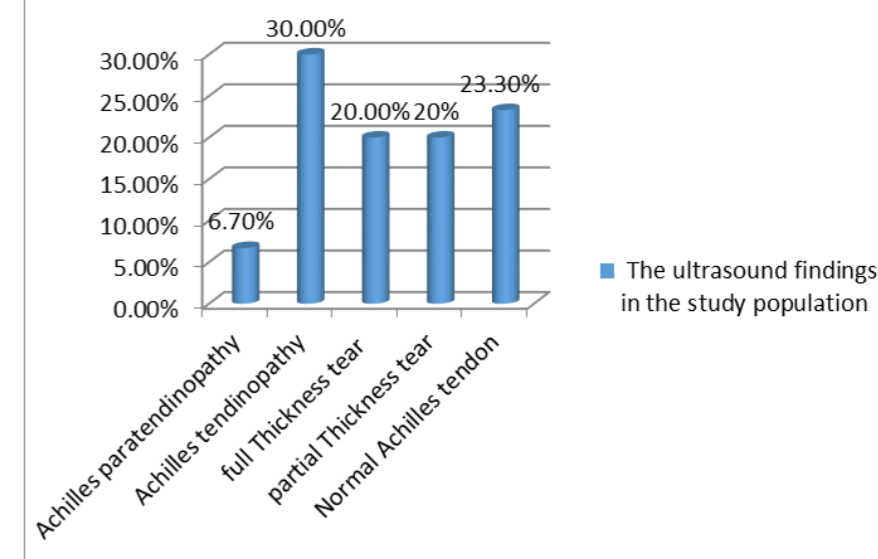


Figure 2: The ultrasound findings in the study population.

CONCLUSION

The current study concluded that:

- No major significant difference between US and MRI regarding the diagnosis of different Achilles tendon pathology.
- Ultrasound is preferred over MRI because it is low-cost, fast, and readily available.
- Ultrasound performance in the diagnosis of Achilles tendon pathology showed high specificity, and accuracy in comparison to MRI performance.
- Ultrasonography can be used either as the final tool of investigation in advanced cases such as complete full thickness tear or as a complementary tool with MRI in other Achilles tendon disorders.