

Abstract

The master thesis entitled "The effect of physical activity on the ultrasonographic evaluation of the Achilles tendon in runners" aims to elucidate the role of physical activity on the outcome of ultrasonographic (USG) examinations. Thirty-two runners underwent a 10km run preceded by a USG examination to evaluate and measure their Achilles tendon (AT). These findings were compared with the results of an identical USG examination acquired after the run. Statistical analysis showed significantly different values for the following parameters: cross section area (CSA), m. flexor hallucis longus (m. FHL) diameter and heel fat pad compressibility (HFP). Subjectively assessed retrocalcaneal bursa size also showed differences in dimensions. Another focus of the study was to compare the client-centric state of the AT assessed by the VISA-A questionnaire with the CSA values and the size of the musculotendinous junction (MTJ) angle of the m. soleus. The size of CSA was inversely correlated with VISA-A values. MTJ angle and VISA-A did not show a statistically significant association.