**Appendix 3**

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| Element | Instruction | Study |
| 1. Name of theInstrument | Alternatively:type ofinstrument andParameter | Supersonic shear wave - Shear wave elastography |
| 2. Version orway ofoperationalization | All relevantcomponents thatare known orexpected toinfluence thescore, and whichare standardizedor restricted(facet ofstratification | **Equipment** AIXPLORER (v.9, Supersonic Image, Aix-en-Provence, France) was used for the shear modulus maps acquisition with two linear transducers operating in the frequencies of 4-15 MHz and 2-10 MHz**Preparatory actions:** The volunteers were positioned lying prone and relaxed, for the MG and AT images acquisition. Images were acquired bilaterally and twice for each structure by a single ultrasound-experienced operator. |
|  |  | Preparation: They were instructed not to perform heavy training between sessions. The exclusion criteria were any report of pain, myotendinous lesion or previous surgery in the structures of interest.First, the transducer was longitudinally positionedover the AT, observing the proximal AT insertion at the right side of the rectangle map (region of interest). Subsequently, the transducer waspositioned over the MG muscle, longitudinally to the limb, in the region of 30% of the proximalleg length (distance between the fibular head and lateral malleolus). The gel (Ultrex-gel, Farmative Industry and Trade Ltda., Brazil) was used for acoustic coupling on the surface of the skin. The isometric plantarflexion torque was tested withthe isokinetic dynamometer (Biodex System 4 Pro,New York, USA). Subjects were seated on the dynamometer chair, with 90° of hip flexion, full knee extension (avoiding hyperextension) and ankle at 90° (neutral position) fixed on the foot platform. After protocol familiarization, two 5-second maximal voluntary contractions (MVC) were performed at a 40-seconds interval. The maximum torque reached in each session was considered for analysis.Unprocessed dataCollection: For the elastographic mode it was selected the musculoskeletal (MSK) or tendon presets, with scales ranging from 0-300 kPa and 0-800 kPa, respectively.A square area of approximately 1.00 cm side for the muscle and a rectangle of 1 x 4 cm for the tendon were selected for the elastographic colour mapping. The shear modulus maps were captured after 10 seconds to guarantee map stabilization. |
| 3. Construct | Description ofwhat is beingMeasured | **Youngs modulus** - For an isotropic and purely elastic medium, the shear wave propagation velocity (Cs) and the medium density (p = 1000 kg • m-3 for biological tissues) are related to E values according to the equation (1):E = 3 ·ρ ·(cs2) |
| 4. Measurementproperty |  | Reliability – intra-rater same day & intra-rater different days |
| 5. Componentsthat will berepeated | Either the wholemeasurement(i.e. all components) or the assignmentof the score (i.e.last component) | The subjects were tested twice, with a one-week interval. Whole measurements - A total of 16 images was obtained for each subject (two for eachstructure, bilaterally, two session days visits)The entire protocol was repeated in a second session, with a maximum interval of one week. For isokinetic torque measurements |
| 6. Source(s) ofvariation varied | Componentswhich is variedacross themeasurements(i.e. focus ofanalysis; facet ofgeneralizability | by single ultrasound experienced operatorMinimal manual pressure was applied on the individual’s skin |
| 7. Patientpopulation | (i.e. facet ofdifferentiation) | 24 healthy male volunteers (28 ± 2 years,88.4 ± 11.4 kg, and 1.80 ± 0.08 m) |