EFFECTS OF AN ELASTIC BANDAGE PROTOCOL IN INDIVIDUALS WITH CHRONIC ANKLE INSTABILITY

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Procedures: The volunteers will complete the sample characterization form containing the demographic data (age, sex, weight, height, BMI, dominance, level of physical activity, history of injuries in the lower limbs) and will sign the informed consent form. Then, they will answer the Cumberland Ankle Instability Tool questionnaire - brazilian-portuguese version and the American Orthopedic Foot and Ankle Society - Ankle-hindfoot Scale validated for Portuguese.

After characterization of the sample and randomization in certain groups, evaluations of static postural control will be carried out through the force platform (BIOMEC400, EMG System do Brasil, SP Ltda.) In unipodal support on the unstable ankle. In the assessment of postural control, participants will be instructed to remain in unipodal support, barefoot for thirty seconds looking at the horizon (a mark will be fixed on the wall at a height of 2 meters), with the upper limbs relaxed beside the body, free lower limb without touching the test limb, maintaining knee flexion position at 90°. Participants will perform the test three times with a 30-second rest interval between each run.

Subsequently, the Y Balance Test will be performed, which consists of reaching the greatest possible distance in three different directions (anterior, posterolateral and posteromedial) with the limb contralateral to the unstable ankle while this limb remains supported in the center of the intersection of measuring tapes in Y shape. (47) Each of the directions is tested three times and the 3 repetitions are averaged.

Finally, the side hop test will be performed, which consists of one-legged lateral jumps over a distance of 30 cm between markings on the ground. There will be 10 jumps, which will be counted from the starting point until the return to it. Participants will be instructed to perform as quickly as possible. In the event of a fall, touch of the pending limb to the ground or failure to pass the mark, the test will be discarded and performed again.

Performed the three postural control tests, an elastic bandage will be applied on the ankle with instability or on the ankle with the lowest score on the CAIT questionnaire (in case of bilateral instability), if there is bilateral instability with the same score on the CAIT-p, bandaging will be performed in the dominant lower limb. The application area will be previously free of hair (performing trichotomy) and asepsis with 70% alcohol. The technique used will be the “technique for stabilizing the ankle”, where an “I” tape without a fixed point is placed from one malleolus to the other by the hindfoot and another “I” tape without a fixed point involves the ankle joint, starting from the calcaneal tendon to cross in front of the talus. The application will be carried out by a professional qualified by the Therapy Taping Method®.

After applying the bandage, the volunteers will again perform the tests mentioned above. They will be instructed on how to care for the bandage (do not dry the area by rubbing the towel, but with light touches, do not cut the ends of the bandage if they are peeling off, do not remove and replace the bandage) to preserve the application and keep the application up to the room day after placed.

- Experimental group: the application of the bandage will be carried out weekly, for five weeks, in the individuals allocated to this group. Each week the tension of the tapes will be increased, increasing 5% of tension per week in relation to the initial length.

- Control Group: the application of the bandage will be carried out weekly, for five weeks, in the individuals allocated to this group. The applications will not suffer an increase in the tension of the tapes, they will only be placed on the application site.

Initial assessment will be carried out on the first day, reevaluations in the third week and in the sixth week after the initial assessment.

- Data analysis:

The normal distribution of the sample data will be analyzed using the Shapiro Wilk test. If normality is established, an analysis of variance of the factors will be used for each dependent variable to compare the groups (elastic bandage without tension and elastic bandage with tension) in both tasks. All statistical analyzes will be performed in the SPSS statistical program (version 20.0) with the adopted significance of 5% ($p < 0.05$).