Doppler mode to measure Total Occlusion Pressure (TOP) and in two-dimensional mode with a linear transducer to assess quadriceps muscle thickness. The performance of the lower limb will be evaluated from the height of the jump on the contact platform in the Counter Movement Jump (CMJ), Squat Jump (SJ) and Drop Jump (DJ) modes from an elevation of 30 and 60cm. The test of a maximum repetition (1MR) unilateral in the extension chair will be used to quantify the load during the interventions. The flow restriction protocols and the same combined with electrostimulation will have four sets of 30, 15, 15, 15 repetitions, with 1 minute of rest between sets of knee extension, with a load of 30% 1MR and 50% of the TOP, which will be adjusted by 5% each week of the protocol until reaching a TOP of 80%. In the CEG, conventional strengthening will be performed, with 70% 1MR in the leg extension, which will have three sets of 10 repetitions, with a 1-minute rest interval between sets. The training will be carried out twice a week, for a period of eight weeks, with reassessment of the 1RM test in the fourth week. At the end of the protocol, individuals will be reassessed.

Conclusion: It is expected that the findings of this study confirm the effectiveness of training with blood flow restriction compared to conventional exercise and that there is superiority in results when associated with neuromuscular electrostimulation.

Implications: In clinical practice, if proven effective, this strengthening program can be proposed as a muscle strengthening option for individuals who cannot tolerate high loads during conventional training.

Keywords: Muscle Strength, Blood Flow Restriction Therapy, Electric Stimulation Therapy

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INTERSEGMENTAL COORDINATION BETWEEN HUMERUS AND SCAPULA DURING ARM ELEVATION IN YOUNG ADULTS

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Background: The intersegmental coordination between humerus and scapula and its variability are inherent to the functional movements of the shoulder. The literature is vast in the characterization of this relationship in discrete angles such as 30, 60, 90 and 120 degrees. Despite the great importance of these specific points of arm elevation amplitude, it is possible to describe coordination by another approach that provides information on the entire time series of arm elevation to the maximum amplitude, as well as on the intra and inter subject variability of the arm elevation coordination pattern. Therefore, exploring the pattern of coordination between humerus and scapula might be relevant to better understand motor variability of the individual and throughout the arc of arm movement.

Objectives: Explore the coordination pattern between humerus and scapula and its variability in asymptomatic individuals during arm elevation movement.

Methods: This is an observational cross-sectional study, in which the coordination between humerus and scapula was evaluated in fifteen individuals without shoulder pain during the maximum arm elevation movement in the self-selected plane. The evaluation was performed by 3D analysis of the scapular kinematics in a laboratory environment, using the hardware (Ascension Technology Corporation, Burlington, VT) TrakSTAR (miniBird®₥) integrated with the software MotionMonitor™₥ (Innovative Sports Training, Inc. Chicago, IL).

Results: The angle diagrams with the relationship between the humerus and the scapula during the entire time series with 3 trials for each subject of the arm raise in a self-selected plane show different patterns of coordination. Some subjects have a linear and continuous relationship between the two segments throughout the movement, while others have a greater contribution from a specific segment at different amplitudes. This difference was identified mainly in the last degrees of movement. A variability between the three attempts was also observed in some subjects, while others showed great consistency between the trials. Finally, different patterns of coordination were observed between the up and down movements of the arm among the subjects.

Conclusion: The observation of coordination between humerus and scapula throughout the time series suggests that there are different patterns of coordination between attempts, between individuals and between the phases of the arm raising movement.

Implications: The intersegmental coordination between humerus and scapula during arm elevation shows important information for the characterization of the individual's motor behavior that go beyond discrete points of arm elevation movement. The variability observed in the motor pattern may be related to the inherent variability of shoulder movement and the individual's ability to adapt their motor strategies to functional demands, which possibly has repercussions on cases of shoulder dysfunction, its management and prognosis.

Keywords: Shoulder Joint, Kinematics, Biomechanical Phenomena

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INTRA- AND INTER-RATER RELIABILITY AND AGREEMENT OF STIMULUS ELECTRODIAGNOSTIC TESTS IN POST-COVID-19 PATIENTS WHO EXPERIENCED MODERATE OR SEVERE INFECTION

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Background: Post-COVID-19 patients may have several sequelae, such as neuromuscular electrophysiological disorders (NED), which can be evaluated using the stimulus electrodiagnosis test (SET). However, no information is available about the reliability and agreement of SET-in diagnosing NED in COVID-19 patients.