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.

Objectives: Our aim was to verify the intra- and inter-rater reliability and agreement of SET measurements in the rectus femoris (RF), vastus medialis (VM), vastus lateralis (VL), tibialis anterior (TA), and gastrocnemius lateralis (GL) of post-COVID-19 participants who experienced moderate or severe infection.
Methods: This is an observational prospective study that evaluated 20 post-COVID-19 patients (10 males and 10 females), age: 44.95± 11.07 years, weight: 87.99±19.08kg, height: 1.69±0.09m. Two independent raters took two evaluations using the SET on RF, VM, VL, TA and GL of the right lower limb in each participant. The intra-class correlation coefficient (ICC) and 95% limits of agreement defined the quality and magnitude of the measures.
Results: For intra-rater reliability, all measurements presented correlations classified as high or very high (ICC: 0.71-1.0). For the inter-rater reliability, rheobase, chronaxie, accommodation, and accommodation index presented high or very high correlations, except for the accommodation index of the GL (ICC=0.65), which was moderate.
Conclusion: The reliability of the SET obtained by independent raters was very high, except for the GL accommodation, which presented moderate ICC. Therefore, SET is a reliable tool for evaluating neuromuscular electrophysiological disorders in post-COVID-19 patients.
Implications: The SET test can be a reliable tool to assess NED in post-COVID-19 patients. Our results may improve understanding of peripheral NED assessment and thus guide treatment programs for post-COVID-19 patients.
Keywords: Chronaxie, Electrodiagnosis, Reliability

Conflict of interest: The authors declare no conflict of interest.
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BIBLIOMETRIC ANALYSIS ON SCIENTIFIC PRODUCTION RELATED TO ADHERENCE OF PATIENTS WITH FOOT ULCER DIABETIC TO OFFLOADING RESOURCES

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Background: Diabetic foot is one of the main complications of diabetes mellitus, defined as the presence of ulcers, infection, or destruction of deep tissues of the feet and even by the loss of sensation affecting feet and legs. Diabetic foot ulcers (DFU) have a significant impact on quality of life, the capacity for walking. Reducing excessive mechanical stress is considered the cornerstone of treatment for neuropathic DFU. called offloading intervention which includes devices and footwears, to redistribute weight on the plantar face. Despite strong evidence support the efficacy of offloading devices, the effectiveness of the intervention depends on adherence from the patient to the treatment, an apparently underexplored subject in the scientific literature. Bibliometric analysis can be used to evaluate publications quantitatively and to predict future research directions.
Objectives: To identify and analyze current status of scientific production related to diabetic foot ulcer patient's adherence to offloading resources.
Methods: A bibliometric analysis of the publications was performed on publications from the main collection of the Web Of Science (WoS) database. The search was carried out in the "topics" field of advanced search, using the terms: cast, offloading, off-loading, off-loading device, offloading intervention, non-surgical offloading, ulcer*, diabetic foot, adherence, and patient compliance. We exclude those publications in which adherence was not the dependent variable. The software VOSviewer Copyright © was used to analyze the journals, authors, institutions, countries, and keywords using standard bibliometric indicators. Data were organized in table, graph, and graph format.
Results: The search strategy used resulted in 64 documents that were reduced to 37 after manual analysis. 29 studies were published between the years 2014 and 2022, with the largest number of publications occurring in 2016 (n=6). More cited was "Activity patterns of patients with diabetic foot ulceration — Patients with active ulceration may not adhere to a standard pressure off-loading regimen" authored by David Armstrong, Lawrence Larvey, Heather Kimbriel and Andrew Boulton. The journal Diabetes Care had the highest number of publications. 134 authors have published on the subject of this review. The highest-ranked institution by number of publications was The University of Amsterdam. England, USA and Netherlands were the 3 top ranked countries by citation.
Conclusion: The findings of this study provided information about the trajectory of scientific publications on the subject over the years. The small number of publications on this subject indicates a gap in the scientific literature, providing insight into trends for future studies, considering that adherence directly impacts on the effectiveness of the intervention. In addition, publications found were in English and come from the northern hemisphere, so data from other regions is needed.
Implications: We believe that this study can be useful to professionals who are looking to understand the current status of publications on DFU patient's adherence to offloading devices and to point out its relevance as an emerging research subject.
Keywords: Diabetic foot, Revision, Offloading

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BIBLIOMETRIC REVIEW ON THE SCIENTIFIC PRODUCTION RELATED TO THE ADHERENCE OF PATIENTS WITH DIABETIC FOOT ULCERS TO HEALTH CARE RESOURCES OFFLOADING

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Background: Diabetic foot (PD) is one of the main complications of diabetes mellitus, being characterized by the presence of ulcers, infection or destruction of deep tissues of the feet and even by the loss of sensitivity of that member in its carriers. Ulcerations can lead to a worse quality of life, because as an ulcer develops, mobility is compromised, requiring the reduction of mechanical loads on the site to favor healing of the lesion. A form of intervention called offloading has been used to redistribute weight on the soles of the feet. It is necessary to consider the factors that involve the patient's adherence to such treatment. However, the topic seems to be little