

J/cm²), twice a week for four weeks, while the PG received treatment with the device turned off. After 15 days, the groups were crossed over. Independent t-tests and paired t-tests were performed for statistical analysis.

Results: The PHQ of the EG significantly decreased after the intervention [$t(21) = 2.79$, $p = 0.01$], while in the PG it remained unchanged [$t(24) = 1.24$, $p = 0.20$]. The comparison between groups after the intervention showed no significant difference [$t(47) = 2.00$, $p = 0.05$].

Conclusion: Auriculotherapy with laser biophotomodulation showed positive effects on the general health of participants in the EG, but it was not significantly superior to the placebo treatment. Implications: These results suggest that the technique may have benefits for individuals with TMD, but further studies are needed to validate its clinical efficacy.

Keywords: Auriculotherapy, Temporomandibular Disorder, Patient Health, Rehabilitation

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CAN IMPROVEMENT IN POSTURAL CONTROL BE OBSERVED AFTER FOUR MONTHS OF ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION? PILOT STUDY

Gabriela Siqueira Clara, Caroline Coletti de Camargo, Lucas da Fonseca Borghi, Gabriela Liberatti Barros, Maria Vitória Aragão Barbosa, Gabriel Valim da Silva, Cynthia Gobbi Alves Araújo, Christiane de Souza Guerino Macedo
Departamento de Fisioterapia, Universidade Estadual de Londrina (UEL), Londrina, PR, Brazil

Background: Anterior cruciate ligament (ACL) rupture accounts for 50% of all knee ligament injuries and is related to sports practice in young and active patients. ACL reconstruction (ACLR) contributes to improving knee function, reducing joint instability, and assisting the patient in returning to their activities. However, even after reconstruction surgery and well-structured rehabilitation programs, residual rotational instability may remain in up to 30% of patients, which highlights the importance of assessing stability, balance, and postural control. However, although there are studies showing the impact on joint stability, there is still no knowledge about postural control in different periods of the postoperative period.

Objectives: To establish the differences in bipedal and unipedal postural control before and after 15, 30, 60 and 120 days after ACL reconstruction surgery.

Methods: This is a pilot study evaluating 13 participants with ACL injury and surgical reconstruction who underwent analysis of bipedal and unipedal postural control before and after 15, 30, 60 and 120 days using a force platform. The variables analyzed were the center of pressure area (COP), anteroposterior amplitude (AAP), mediolateral amplitude (AML), anteroposterior velocity (VAP) and mediolateral velocity (VML). Three repetitions in bipedal support and three in unipedal support on the lower limb subjected to ACLR were evaluated. The mean of the attempts was considered as the result. The results were established by Repeated Measures Analysis of Variance. The assumptions were verified using Mauchly's sphericity test and when they were not assumed, an analysis was performed using the Greenhouse-Geisser correction. The F test, if a significant difference was identified, the Bonferroni multiple

correction test was used. Significance was set at 5%. Analyses were performed using IBM-SPSS 29.

Results: The participants were 10 men and 03 women, aged 25.09 (6.44) years, weighed 79.27 (16.67) kilos and measured 170.45 (8.64) centimeters in height. Postural control in the bipedal position showed no differences between the moments evaluated for COP ($P = 0.107$), AAP ($P = 0.217$), AML ($P = 0.269$), VAP ($P = 0.432$) and VML ($P = 0.477$). When the participants were in unipedal support, COP showed significant improvement ($P = 0.025$) with a difference between the preoperative moments (7.76 (2.17)) and after 120 days of surgery (5.93 (1.30)). The variables AAP ($P = 0.085$), AML ($P = 0.089$), VAP ($P = 0.669$) and VML ($P = 0.248$) did not show any changes.

Conclusion: ACLR improves postural control in single-leg stance by reducing the area of the center of pressure 120 days after surgery. These results establish the improvement in lower limb stability after ACLR.

Implications: Residual rotational instability may remain in up to 30% of patients. However, it is noted that ACLR has a beneficial impact on joint stability in different periods of the postoperative period, especially after 120 days of surgery.

Keywords: Anterior Cruciate Ligament Injury, Postural Control, Postural Balance, Physiotherapy

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COMPARISON OF THE SCIATIC AND MEDIAN NERVES NEURODYNAMIC IN ASYMPTOMATIC OLDER ADULTS AND YOUNGER ADULTS: OBSERVATIONAL CASE-CONTROL STUDY

Ricardo Liberalli Miguez, Rayssa de Vilhena Moreira, Maria Alice Mainenti Pagnez, Pedro Teixeira Vidinha Rodrigues, Gustavo Felício Telles, Leandro Alberto Calazans Nogueira
Centro Universitário Augusto Motta (UNISUAM), Rio de Janeiro, RJ, Brazil

Background: Healthy peripheral nerves have the ability to adapt to increased neurodynamic tension generated by body movements. However, this adaptive capacity is reduced in pathological conditions. Although peripheral neuropathies are common in older adults, there is an absence of knowledge about the behavior of peripheral nerves in asymptomatic older adults.

Objectives: To compare the behavior of the sciatic and median nerves to neurodynamic tension in older adults and asymptomatic adults.

Methods: Sixty-eight asymptomatic participants (34 older adults and 34 sex-matched adults) were evaluated by ultrasound imaging of the sciatic and median nerves, in two positions with different degrees of neurodynamic tension for each nerve. For the median nerve, the first position kept the participant's right upper limb at 90 degrees of shoulder abduction and external rotation, elbow flexion at 90 degrees, forearm supination with the palm facing the participant, and the wrist and metacarpophalangeal joint in a neutral position. In position 2, the second examiner passively extended the elbow, wrist, and metacarpophalangeal joint until the perception of resistance limits the range of motion. For the sciatic nerve, the hip flexion was maintained at 60° in both positions. In Position 1, the knee was flexed at 90 degrees, and the tibiofibular joint remained neutral. In position 2, the knee was passively extended, and the

tibiofibular joint dorsiflexed. The cross-sectional area and the nerve-skin distance of each nerve were measured in each position in both groups. The measurements were compared by analysis of variance for repeated measures.

Results: The sample was predominantly composed of females [$n = 25$, (73.52%)], with a mean age of 30.47 years (6.84) for adults and 70.47 years (5.22) for older adults. The nerve-to-skin distance increased significantly between positions 1 and 2 for the median nerve ($F = 54.04$; $p < 0.001$) and between positions 1 and 2 for the sciatic nerve ($F = 107.54$; $p < 0.001$), regardless of age group. Similarly, the cross-sectional area of the sciatic nerve was greater in position 1 compared to position 2 for the sciatic nerve ($F = 17.27$; $p < 0.001$). No significant interactions were observed between age group and position for any of the variables, indicating that both adults and older adults responded similarly to the increase in neural tension. Moreover, the sciatic nerve was significantly more superficial in older adults than younger adults ($t = -3.09$; $p = 0.018$) in position 2.

Conclusion: The sciatic and median nerves responded similarly to increased tension in older adults and adults for the variables: cross-sectional area of the sciatic and median nerves and the nerve-skin distance of the median nerve. However, for the nerve-to-skin distance of the sciatic nerve, it was observed that the nerve was more superficial in older adults.

Implications: The neurodynamic response to tension was similar between asymptomatic older and younger adults. Although the sciatic nerve was more superficial in older adults, it is reasonably explained by the body mass index difference and the age-related trend of muscle mass decline.

Keywords: Peripheral Nerves, Ultrasonography, Age Groups

Conflict of interest: Os autores declaram não ter conflito de interesse.

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RESPONSE ANALYSES IN CHRONIC LOW BACK PAIN DO THEY MODIFY CLINICAL TRIAL OUTCOMES?

Robson Massi Bastos, Rodrigo Vasconcelos, Leonardo Oliveira Pena Costa

Universidade Cidade de São Paulo (UNICID), São Paulo, SP, Brazil

Background: Most clinical trials in the field of low back pain use mean differences and 95% confidence intervals to estimate treatment effects. However, clinicians often criticize this statistical approach, arguing that it may not provide a "real estimate" at an individual level. An alternative strategy is to categorize patients as "recovered" or "non-recovered" to better identify those who may benefit more from specific treatments. This type of analysis is known as responder analysis.

Objectives: This study aims to perform a secondary analysis (responder analysis) of clinical trials involving patients with low back pain, examining each study's results individually and investigating whether a responder analysis would alter the conclusions of these trials.

Methods: We conducted a secondary analysis of fourteen randomized controlled trials performed by our research group on patients with chronic low back pain. Pain, disability, and global perceived effect outcomes were analyzed. We generated cutoff points to

classify patients as "recovered" or "not recovered" for the responder analysis. We then compared the results of the responder analysis to the original findings of these trials.

Results: We analyzed data from 2,187 patients with chronic low back pain. In total, only 23 out of 384 (6%) analyses altered the primary findings, suggesting that although the secondary analysis modified some individual outcomes, most results remained consistent with the primary analysis.

Conclusion: Reanalyzing the original clinical trial results using responder analysis did not lead to significant changes in the previous conclusions of any of these trials. The hypothesis that a response-based analysis could identify a higher proportion of recovered patients in the intervention groups was not confirmed.

Implications: Despite being widely used, responder analysis appears to yield similar conclusions to traditional statistical approaches in low back pain trials.

Keywords: Responder analysis, Low back pain, Clinical trial

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RELATIONSHIP BETWEEN ISOKINETIC MEASURES, PSYCHOLOGICAL READINESS AND SUBJECTIVE FUNCTION AFTER 6 MONTHS OF ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION: PILOT STUDY

Caroline Coletti de Camargo, Lucas da Fonseca Borghi, Gabriel Valim da Silva, Gabriela Liberatti Barros, Maria Vitória Aragão Barbosa, Cynthia Gobbi Alves Araújo, Jefferson R. Cardoso, Christiane de Souza Guerino Macedo
Departamento de Fisioterapia, Universidade Estadual de Londrina (UEL), Londrina, PR, Brazil

Background: Isokinetic measurements are considered important variables for return to sport, however, isokinetic testing is not easily accessible to most athletes. In this context, physical therapists use self-reported scales and questionnaires to better understand knee function and readiness to return to sports activities. However, little evidence addresses how self-reported measures of subjective function and psychological readiness may be associated with recovery of function after Anterior Cruciate Ligament Reconstruction (ACLR).

Objectives: To analyze the correlation between isokinetic variables, psychological readiness measured by the Return to Sport Scale (ACL-RSI) and subjective function by the International Knee Documentation Committee (IKDC) after 6 months of ACLR.

Methods: This is a pilot study (I), with 7 participants undergoing ACLR (27.5 ± 6.9), 6 men and 1 woman, who participated in the standardized evaluation and treatment protocol over 6 months. At the end of 6 months of ACLR, they underwent isokinetic evaluation and responded to ACL-RSI and IKDC. The outcomes evaluated were isokinetic strength, Limb Symmetry Index (LSI) and Muscle Impairment Index (MDI), ACL-RSI and IKDC. The analyses performed were Pearson's Correlation Coefficient in SPSS29 ($p < 0,05$). The correlations in relation to ACL-RSI and IKDC, respectively, were: For extensor strength $r = -0.200$ ($p = 0.667$) and $r = -0.860$ ($p = 0.855$) and flexor $r = -0.254$ ($p = 0.582$) and $r = -0.226$ ($p = 0.627$), extensor LSI $r = 0.422$ ($p = 0.346$) and $r = 0.294$ ($p = 0.523$) and flexor $r = 0.297$ ($p = 0.518$) and $r = 0.173$ ($p = 0.711$) and extensor IDM $r = 0.412$ ($p = 0.358$) and $r = 0.145$ ($p = 0.757$) and flexor $r = -0.740$ ($p = 0.057$)