Objectives: The primary aim of this study is to evaluate how many sessions of cerebellar spinal tDCS associated with a gait training protocol a sample of individuals with ACS should receive until they stop showing improvements in the time, they can remain standing on one limb bottom. The impact of this intervention on measures of balance and gait performance will also be evaluated.
Methods: This is a pragmatic clinical trial protocol, in which 20 patients with different types of ACS will receive tDCS sessions associated with a gait training protocol with progressively greater difficulty. The tDCS will be applied for 20 min and intensity of 2mA, with the anode electrode positioned on the cerebellar region and the cathode on the thoracic region of the medulla (approximately T8). At each session, the time individuals manage to remain in unipodal support will be computed (less than three attempts). When the time in unipodal support is like that of age- and sex-matched healthy individuals, the protocol will be discontinued. Patients will also be evaluated before and after the end of the intervention using the Scale for the Assessment and Rating of Ataxia (SARA), dynamDynamic Gait Index (DGI), Minibest.
Results: It is expected that multiple sessions of cerebellar-spinal tDCS associated with gait training promote an increase in the time that each participant is able to remain standing on one leg independently, resulting in a more stable gait and better balance.
Conclusion: The study is under development. The project will be defended this semester and after approval by the institution's research ethics committee, the volunteer recruitment phase will begin.
Implications: This study will help physiotherapists who use tDCS in patients with SCA3 in choosing the number of sessions that should be used to obtain satisfactory results regarding balance and gait in this population.
Keywords: tDCS, Spinocerebellar ataxia, Balance

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BLADDER TRAINING IN THE IMPROVEMENT OF OVERACTIVE BLADDER SYMPTOMS: A SYSTEMATIC REVIEW OF RANDOMIZED CONTROLLED TRIALS

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Background: Bladder training (BT) is characterized by a programmed voiding regimen with gradually adjusted voiding intervals and is commonly used in the conservative treatment of individuals with overactive bladder (OAB).
Objectives: To investigate and update the literature on the effectiveness of BT treatment alone and/or combined with other therapeutic strategies that can promote improvement in OAB symptoms and quality of life and report adverse events.
Methods: The systematic review was performed in eight databases, including PubMed, PEDro, SciELO, LILACS, Cochrane Library, Web of Science, EMBASE and CINAHL. After selecting the titles, abstracts and full texts retrieved. To assess the risk of bias of the studies, the Cochrane RoB 2 tool and the GRADE system were used to determine all the evidence of the studies analyzed. The protocol of this study is available in the PROSPERO systematic review protocol registry database with the registration number (PROSPERO CRD42022301522).
Results: The search generated a total of fourteen randomized controlled trials (RCTs) included in the review. The total participants were 2,319 (men and women) from 9 countries. The minimum age of the sample was 18 and the maximum age was 80 years. RCTs featured BT isolated (n=12), BT + intravaginal electrical stimulation (IVES) (n=2), BT + DT (drug treatment) (n=5), DT (n=7), BT + Biofeedback (BF) + IVES (n=1), PFMT + BF (n=1), BT + PFMT + behavioral education/therapy (n=2), BT + PTNS (percutaneous tibial nerve stimulation) or BT + TTNS (transcutaneous tibial nerve stimulation) (n=1). To the meta-analyses BT combined with IVES in the short-term follow-up period promoted improvement in nocturia (DM: 0.89, 95% CI: 0.59-1.20), urinary incontinence (DM: 1.93, 95% CI:1.32-2.55) and quality of life (DM: 4.87, 95% CI: 2.24-7.50). Three RCTs were considered with a "High" risk of bias, nine studies with "Some concerns," and two with a "Low" risk. In the GRADE system, the RCTs showed very low, of evidence to the GRADE system.
Conclusion: BT combined with IVES showed favorable results for treating OAB in the short-term follow-up period. Thus, the use usingined with IVES is recommended for treating individuals with OAB.
Implications: For individuals with OAB treated with BT + IVES there is a report of reduced episodes of nocturia, urinary incontinence and improved quality of life in the short-term follow-up period. The methodological quality of the studies was the best possible for the moment; aspects of the currently available RCTs were analyzed to update the current literature. Most of the data in this review comes from moderate-sized RCTs of very low to moderate methodological quality, verified by GRADE, in addition to heterogeneous risk of bias across RCTs. The findings corroborate the recommendations of the societies guiding conservative treatment for OAB. BT should be offered in combination with IVES as supplemental therapy in conservative treatment to increase treatment efficacy in the short-term follow-up period.
Keywords: Bladder training, Rehabilitation, Overactive bladder

Conflict of interest: The authors declare no conflict of interest.

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AUTOMATIC ROTATIONAL THERAPY IN MECHANICALLY VENTILATED INDIVIDUALS AND LONG STAY IN AN INTENSIVE CARE UNIT: SYSTEMATIC REVIEW AND META-ANALYSIS

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Background: Invasive ventilatory support and prolonged immobility in bed are predictive factors for the development of respiratory and musculoskeletal complications in critically ill patients, favoring