

**Objectives:** The primary endpoint evaluates the effectiveness of ventosaterapy on quadriceps muscle pain and the secondary endpoints investigate the effectiveness of the technique on muscle fatigue, performance, overall perceived effect after running.

**Methods:** This is a randomized controlled trial study, with a follow-up period of 72 hours, registered in the REBEC platform. The runners will be distributed in experimental or control group in a randomized manner. The experimental group will receive vacuum therapy in the quadriceps muscle belly after running and the control group will receive non-effective joint mobilization in the hip and knee joints. Both interventions will last 5 minutes. Allocation will be concealed using opaque, sealed, and numbered envelopes. The runner and the assessor will be blinded to the interventions. Intent-to-treat analysis will be used. Sample selection will be by convenience. Runners will be recruited after running street races in the city of Juiz de Fora and will be instructed not to perform vigorous physical activity 24 hours before and 72 hours after data collection. Inclusion criteria: running at least 6km, adult, running for at least 1 year, and having the habit of practicing running at least twice a week. The intervention or placebo will be performed on the leg that is most sore after running. If participants report the same level of pain in both legs or no pain at all, the side to be evaluated and treated will be randomly selected. The endpoints will be measured: Pain and fatigue (EVAN), muscle performance (unipodal vertical jump) and overall affect (perceived global affect scale).

**Keywords:** Runner, Recovery, Cupping

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

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# ANALYSIS OF SURVIVAL TIME AND FUNCTIONAL PROGRESSION IN PATIENTS WITH AMYOTROPHIC LATERAL SCLEROSIS: A LONGITUDINAL STUDY

Lariza Maria da Costa<sup>1</sup>, Natália Lopes Cardoso<sup>1</sup>,

Karen de Medeiros Pondofe<sup>1</sup>,

Guilherme Augusto De Freitas Fregonezi<sup>1</sup>,

Vanessa Regiane Resqueti Fregonezi<sup>1</sup>, Rayane Grayce da Silva Vieira<sup>1</sup>

<sup>1</sup> Departamento de Fisioterapia, Pneumocardiocirculatória Lab e Laboratório de Inovação Tecnológica em Reabilitação, Universidade Federal do Rio Grande do Norte (UFRN), Natal, Rio Grande do Norte, Brazil

**Background:** Amyotrophic lateral sclerosis (ALS) is a disease that causes progressive degeneration of neurons present in the spinal cord and cerebral cortex. It is a disease with a progressive course, with worsening disability and death 3 to 5 years after diagnosis. However, some patients seem to have a slower progression, while others maintain a rapid progression, which may influence the clinical course of the disease and accelerate death.

**Objectives:** To evaluate the survival time of patients with ALS, according to the progression of the disease in rapid or slow, and to compare the level of functionality between two evaluations.

**Methods:** A longitudinal case series study that followed patients with a confirmed diagnosis of ALS from August 2018 to February 2022. Data were collected from medical records of periodic evaluations, in which pulmonary function tests were performed and the ALS Functional Assessment Scale (ALSFAS-r) was applied. From the values obtained in the scale, the progression rate was calculated, where the patients were divided into slow or rapid progression and

followed for 3.5 years for statistical analysis of survival, later performed by the Kaplan-Meier test. The results of the scores of the first and second evaluation of each patient were compared using the paired t-test.

**Results:** 11 patients were followed, 7 with rapid progression (63%) and 4 slow (37%) with a mean age of 61.64 years and forced vital capacity (FVC): 62.2 (38.7-85.7)%pred. In the functionality evaluation, it was observed that there was a significant reduction ( $p < 0.01$ ) in the total scale score compared to the first evaluation. The survival percentage was 0%, where all patients died at the end of the study, but the median survival of the slow progression group from the first evaluation until the final outcome was 46 months, while the rapid progression group was 28 months, with no significant difference between the survival curves (HR = 0.42; CI 0.12 - 1.48).

**Conclusion:** The present study was able to demonstrate that after the second evaluation ALS patients may have significant losses of functionality by the decline of the ALSFAS-r functional score. Also, it can determine the evolution of the disease and assist in identifying the speed of progression of the pathology.

**Implications:** Regular use of the ALS functional assessment scale and calculation of the rate of progression in the outpatient clinical setting becomes essential to chart a better short- and long-term prognosis and follow-up of the disease.

**Keywords:** Prognosis, ALS, Survival

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# USE OF SHAPING METHODS WITH FOCUS ON 1ST DORSAL INTEROSSEOUS' STRENGTHENING FOR TREATMENT OF INDIVIDUALS WITH RHIZARTHRITIS: CASE REPORT

Laura Beatriz Lorevice<sup>1</sup>, Natália Barbosa Tossini<sup>1</sup>,

Gabriela Sardeli de Oliveira<sup>1</sup>, Cristiane de Sousa Melo<sup>1</sup>,

Gustavo Viotto Gonçalves<sup>1</sup>, Paula Regina Mendes da Silva Serrão<sup>1</sup>

<sup>1</sup> Departamento de Fisioterapia, Universidade Federal de São Carlos (UFSCar), São Carlos, São Paulo, Brasil

**Background:** Rhizoarthrosis is a chronic health condition characterized by progressive degeneration of the trapeziometacarpal joint. This implies a decreased range of motion, muscle weakness, and pain in the thumb base. Thus, the loss of structure and function of the hand can interfere with the characteristics of activities and participation of these subjects. These, however, can be minimized by the 1st dorsal interosseous muscle strengthening, an important trapeziometacarpal joint dynamic stabilizer. This strengthening is not usually included in physical rehabilitation, which also does not detail the exercises' load, progression, and number of repetitions.

**Objectives:** To reduce the impact of rhizoarthrosis on activities and the social participation of affected subjects, this study aimed to investigate the effect of an intervention with a shaping method focused on the 1st dorsal interosseous' strengthening.

**Methods:** Subjects with rhizoarthrosis, diagnosed according to the Eaton- Littler -Burton criteria, were included. These were evaluated before, after 4 weeks, and at the end of treatment. For the evaluation of aspects of body structure and function, the pain was assessed using the Numerical Pain Scale, handgrip and pinch strength, and the Nine-Hole Peg Test (NHPT). Activity and participation were assessed using the Australian/Canadian Hand