

028/15). The group control consists of animals that were not submitted to partial injury of the Achilles tendon (TC) and four other groups that were submitted to partial injury of the TC and subdivided by the time of tissue collection, namely: 3.1428 and 55 days after the injury. the muscle gastrocnemius was collected and used for the analysis of gene expression, zymography, and morphology. The CT was collected only to prove the presence of the lesion.

Results: The tendon injury generated a decrease in the expression of genes Vegf, Smad3, Egr and Akt 3 days in skeletal muscle. As well as increased gene expression, Col3a1, Ctgf, Timp- 2 and Bgn. All when compared to the control group. In the period of 14 days after partial injury of the Achilles tendon, a decrease in the Mstn and Smad3 gene content was verified. On the other hand, there was an increase in the expression levels of the Akt and Vegf genes. In the period of 28 days after the injury, there was an increase in the levels of expression of the genes Tgf- β , Vegf, Mstn, Pax7 and Myod1. With the decrease of Smad3 expression, Akt. Finally, 55 days after partial Achilles tendon injury, the Akt, P70s6k, Pax7, Mstn and Atrogin-1 genes showed an increase in their expression. While the levels of Smad3, Timp-2 showed a decrease. As for the zymography analysis of MMP-2 activity in the gastrocnemius muscle, it was demonstrated that MMP-2 pro increased in the 28D and 55D groups when compared to the control group. For morphological analyses, only the 55D group showed an increase in cross-sectional area and diameter.

Conclusion: The project is in the phase of discussing the results, but the partial injury of the Achilles tendon in rats probably affected the homeostasis of the skeletal muscle, disturbing signaling/degradation pathways, in addition to impacting the remodeling process through the communication of the muscular extracellular matrix with the tendon.

Implications: The findings of this study have the potential to improve the understanding of the underlying effects of the muscle-tendon relationship and may provide valuable information for the development of targeted therapies aimed at improving the recovery and rehabilitation of muscle and tendon injuries. Furthermore, the results of this study may help to identify new therapeutic targets and biomarkers for the diagnosis and monitoring of muscle and tendon injuries, allowing for a more personalized and effective treatment.

Keywords: Injury, Muscle-tendon interaction, Remodeling

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

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SEDENTARY BEHAVIOR AND PHYSICAL ACTIVITY LEVEL OF OLDER ADULTS DURING AND AFTER THE RESTRICTIVE MEASURES OF THE COVID-19 PANDEMIC

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Background: The COVID-19 pandemic has actively impacted the lifestyle of older adults, interrupting their participation in exercise programs (EP) and consequently increasing sedentary behavior (SB)

and decreasing physical activity (PA). However, the flexibilization of the pandemic's restrictive measures is expected that the older adults will return to adopting an active lifestyle.

Objectives: To compare the SB and PA level of older adults during and after the restrictive measures of the COVID-19 pandemic.

Methods: This is an observational and longitudinal study. Older adults (≥ 60 years old), with preserved ambulation and participants in the multicomponent EP (3x50min during the week) before the COVID-19 pandemic were included. The participants were evaluated 18 months (T1= during the restrictive measures of the pandemic) and 24 months (T2= after the restrictive measures of the pandemic) after the interruption of the EP. SB and PA level were evaluated by the ActivPAL3TM micro accelerometer. SB variables were daily SB time, % of SB time during the day, daily sitting time, number of sedentary bouts > 30min and time spent in sedentary bouts > 30min. The PA level was described by the number of steps per day. To evaluate the effect of time in the SB variables and the PA level, a generalized linear mixed model analysis was used. Time was considered a fixed effect and participants a random factor. Results are presented in estimated marginal means and standard error. Statistical analysis was performed using the JAMOVI software (version 2.3.18) and a significance level of $p < 0.05$ was adopted.

Results: Seventeen older adults were included (75.8 ± 7.47 years, 76.5% female). No statistically significant differences were observed in the time spent in SB (T1= 8.49 h and T2= 8.85 h, $X^2 = 1.99$, Dif= 0.356, $p = 0.158$), % of time in SB (T1= 55.9 % and T2= 56.3%, $X^2 = 0.06$, Dif= 0.382, $p = 0.793$), sitting time (T1= 8.06 h and T2= 7.87 h, $X^2 = 0.324$, Dif= -0.191, $p = 0.569$), number of sedentary bouts > 30min (T1= 3.85 and T2= 4.14, $X^2 = 0.941$, Dif= 0.293, $p = 0.332$), time spent in sedentary bouts > 30min (T1= 4.23 h and T2= 3.90 h, $X^2 = 0.998$, Dif= -0.332, $p = 0.318$) and in the PA level (T1= 9521 steps and T2= 9862 steps, $X^2 = 0.653$, Dif= 341, $p = 0.419$) of older adults after the flexibilization of the restrictive measures of the COVID-19 pandemic.

Conclusion: No significant changes were observed in the SB and PA level of older adults who participated in an EP after the flexibilization of restrictive measures of the COVID-19 pandemic.

Implications: The findings of this study demonstrate that despite the flexibilization of restrictive measures of the COVID-19 pandemic, the older adults continue to have high rates of SB, demonstrating the need to implement public policies that reduce SB and encourage the practice of PA.

Keywords: Aged, Sedentary Behavior, COVID-19

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

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RELATIONSHIP BETWEEN SEDENTARY BEHAVIOR, PHYSICAL ACTIVITY LEVEL AND PHYSICAL FUNCTION OF OLDER ADULTS DURING THE COVID-19 PANDEMIC: CROSS-SECTIONAL STUDY

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