Background: In 2019 a highly contagious virus responsible for the current pandemic, called SARS-CoV-2, emerged in China. Among the main symptoms are fatigue, fever, dry cough, and respiratory failure. However, some symptoms have stood out and attracted researchers: anosmia and dysgeusia. Sensory function is related to motor function. Thus, the evaluation of the sensory-motor-oral system in a broader way becomes indispensable, allowing a better understanding of these alterations in this public.
Objective: The purpose of this study was to preliminarily analyze, by means of standardized clinical protocols, the orofacial myofunctional function aspects of adult individuals affected by SARS-CoV-2 after clinical recovery, from a comparative study with a control group, and to relate the literature findings to the aspects identified.
Methods: This is a descriptive observational study. Individuals recovered from COVID-19 will be recruited to the study to compose the research group. Those who did not have the disease will be included in the control group, considering the inclusion and exclusion criteria for both groups. Specific tests were selected, according to feasibility, to evaluate the functions of smell, taste, oral stereognosis and swallowing, which will be applied during an individual session, according to the manufacturer's/tenderer's instructions, by previously trained evaluators.
Results: As for the orofacial myofunctional system and swallowing, the GP (research group) showed better performance in the evaluation, although with a low difference in the results. Although the CG (control group) and GP had adequate answers higher than 50% in the oral stereognosy test, when compared, the GP showed better performance. There is an alteration of the olfactory system when the groups are compared, with greater impairment in the GP.
Conclusion: It was possible to confirm the existence of orofacial myofunctional manifestations in individuals recovered from COVID-19. It was possible to have an integral and direct evaluation of the patient, which will allow the maintenance of care after the cure of the underlying disease.
Implications: It is difficult to find collections on taste disorders, oral stereognosia, and swallowing in post-COVID-19 patients, highlighting the importance of this study. Moreover, there is no research on these disorders, specifically for the public from the Federal District. Most studies are focused on patient survival; thus, this research aims to investigate the sequelae the disease to enable a holistic view for the maintenance of care.
Keywords: COVID-19, Smell, Taste

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THERMOMONITORING OF THE CALCANEAL TENDON DURING ISOMETRIC AND ISOTONIC EXERCISES ASSOCIATED WITH PHOTOBIOMODULATION

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Background: To establish effective protocols for the prevention and treatment of calcaneal tendinopathies, it is necessary to previously understand the physiological adaptations and thermal alterations provided by exercise in the tendinous tissue. The relationship between the onset of pathological processes and tendon temperature is not clear in the scientific literature, in addition to the fact that it is still unknown whether benefits can be added to the treatment through the application of photobiomodulation (PBM) on the tendon immediately before resistance exercise.
Objective: To analyze the thermal pattern of the skin over the Achilles Tendon (AT) of healthy individuals submitted to PBM in association with isometric and isotonic exercises, in addition to verifying whether the protocols have an acute effect on the muscle strength of the triceps surae, subjective perception of exertion and occurrence of pain.
Method: Experimental, randomized, single-blind study. The sample consisted of 32 healthy, physically active volunteers, divided into 2 groups (n= 16), submitted to evaluation by infrared thermography (T360, Flir Systems) in 10 times (rest, during and after the protocol), of strength triceps surae muscle using the DD-300 isometric dynamometer; of perceived exertion by the modified Borg scale and pain by the Numerical Scale, before and after the execution of the protocols. The isometric group performed 3 contractions maintained for 45s and the isotonic group performed 3 sets of 15 repetitions, lowering the heel to the maximum range of dorsi and plantar flexion (1s concentric phase and 2s eccentric phase). Both used the dominant limb with the forefoot on a step, adopted a 15s interval between series and totaled 165s of execution. The exercises were preceded by PBM by LED (TENDLITE, California, USA) sham and real, with a total dose of 20.3 J distributed in 4 points over the AT, with a washout of one week between the two interventions. Data were processed in SPSS version 20.0 adopting a significance level of 5% and a confidence interval of 95%. The paired t-Test was used to compare strength, pain and perceived exertion, and the repeated measures Anova was used to compare temperature means.
Results: There were significant interactions in the analysis time x exercise, in which the isotonic group presented higher temperatures than the isometric group (p=0.001 CI T10=0.387 to 1.010 η2=0.141), greater perception of effort (p=0.001) and pain (p=0.001). There were no significant changes in strength measures with prior application of PBM for the isometric (p=0.790) and isotonic (p=0.597) groups.
Conclusions: Isometric exercise can be better tolerated in the early stages of rehabilitation because it presents less thermal stress and discomfort. Isotonic exercise considered the gold standard in the treatment of tendinopathies of the calcaneus, mainly with eccentric overload, presented greater thermal amplitude. However, this increase in tendon temperature, as well as the changes caused by it, still needs to be studied as to the real benefits. The dose of PBM applied did not cause immediate changes in muscle strength or pain perception.
Implications: This study contributes to knowledge about the thermal behavior of the tendon in response to exercise, its association with PBM, and its applicability in prevention and rehabilitation.
Keywords: Thermography, Physical exercise, Achilles tendon, Phototherapy

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