stroke is and its signs and symptoms. Most claimed to know that unhealthy habits are risk factors for the occurrence of stroke. However, an important amount of subjects (approximately 20%) stated that they did not have this knowledge and lacked this type of information. As the study is ongoing, these results should be interpreted with caution.

*Implications:* The results of this study contribute to the direction of actions for secondary prevention of stroke. Future studies should investigate whether having knowledge about stroke promotes the adoption of a healthy lifestyle.

Keywords: Stroke, Healthy lifestyle, Knowledge

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# THE PAINDETECT QUESTIONNAIRE TRULY IDENTIFIED PRESERVED CONDITIONED PAIN MODULATION IN MOST PATIENTS WITH MUSCULOSKELETAL PAIN

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*Background:* Neuropathic-like symptoms patients had more unfavorable pain features than nociceptive patients. PainDETECT questionnaire have been used to assess the central sensitization sign and symptoms. Moreover, deficient conditioned pain modulation is common in several neuropathic-like symptoms patients. However, whether the painDETECT questionnaire can identify impairment of the conditioned pain modulation it is still unknown.

*Objectives*: The current study aimed to evaluate the diagnostic accuracy of the painDETECT questionnaire in detecting the impairment of the conditioned pain modulation in participants with musculoskeletal pain.

*Methods:* A diagnostic accuracy study was conducted on 308 participants with musculoskeletal pain enrolled consecutively in outpatient departments. The painDETECT questionnaire (index method) was compared with the cold pressor test, the psychophysical test used to assess the conditioned pain modulation (reference standard).

*Results*: Most participants were female (n = 220, 71.42%) and had a mean age of 52.21 ( $\pm$ 15.01). One hundred seventy-three (56.16%) participants were classified as nociceptive pain, 69 (22.40%) as unclear, and 66 (21.42%) as neuropathic-like symptoms. According to the cold pressor test, 60 (19.48%) participants presented impairment of conditioned pain modulation. The cutoff point of 12 of the painDETECT questionnaire showed values of diagnostic accuracy below 70% compared to the cold pressor test, except for a negative predictive value [76.98 95% Confidence Interval (CI) 71.72 to 81.51]. The cutoff point of 19 showed high specificity (78.63%, 95% CI 73.00 to 83.56), high negative predictive value (80.58%, 95%CI 78.16 to 82.79), and accuracy of 67.53% when compared to the cold pressor test.

*Conclusion*: PainDETECT questionnaire is useful for ruling out patients with musculoskeletal pain and impairment of conditioned pain modulation.

*Implications:* The PainDETECT questionnaire can be used as an initial screening strategy by healthcare professionals to screen for neuropathic-like symptoms in patients with musculoskeletal pain. Researchers should use instruments with high precision to assess the presence of signs and symptoms related to central sensitization and neuropathic-type symptoms to confirm the findings of the present study. Furthermore, the diagnostic accuracy of painDETECT is just one of the considerations when determining a screening tool for musculoskeletal pain. Therefore, additional aspects must be considered.

*Keywords:* Musculoskeletal Pain, Neuropathic Pain, Diffuse Noxious Inhibitory Control

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

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# NEUROPATHIC-LIKE SYMPTOMS AND CENTRAL SENSITIZATION RELATED SIGNS AND SYMPTOMS NEGATIVELY AFFECT THE FUNCTIONAL PERFORMANCE OF PATIENTS WITH KNEE OSTEOARTHRITIS

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*Background:* Knee osteoarthritis is one of the main causes of disability in the elderly. Most of this population has movement restrictions and functional limitations (morning stiffness, reduced joint mobility, crackles and muscle atrophy) that compromise the performance of daily activities. Therefore, investigating aspects of the functionality of patients with knee osteoarthritis is relevant.

*Objectives:* This study aimed to compare the functional performance among participants with a neuropathic-like symptoms and central sensitization related signs and symptoms, and their knee osteoarthritis counterparts.

Methods: A cross-sectional observational study was conducted with 125 participants with knee osteoarthritis (94 females, mean age  $63.1\pm7.4$  years). Participants completed a self-reported questionnaire with personal and clinical features and musculoskeletal pain characteristics, including neuropathic-like symptoms (PainDETECT questionnaire), central sensitization related signs and symptoms (Central Sensitization Inventory, CSI), and conditioned pain modulation (Cold Pressor Test). Self-reported functional disability (Western Ontario and McMaster Universities Osteoarthritis Index, WOMAC) and functional mobility (Timed Up and Go, TUG) were compared among patients with neuropathic-like symptoms, central sensitization related signs and symptoms and their knee osteoarthritis counterparts using the one-way analysis of variance (ANOVA).

Results: Thirty-three (26.4%) participants had neuropathic-like symptoms and central sensitization related signs and symptoms, eighteen (14.4%) had neuropathic-like symptoms, twenty-seven (21.6%) participants had central sensitization related signs and symptoms, and 47 (37.6%) had knee osteoarthritis with no neuropathic-like symptoms or central sensitization related signs and symptoms. A one-way ANOVA revealed greater functional limitation in the group with neuropathic-like symptoms and central sensitization related signs and symptoms (mean =  $67.5 \pm 12.0$ ) or neuropathic-like symptoms (mean =  $56.7 \pm 17.5$ ) than the group without these symptoms (mean =  $32.0\pm20.7$ ) with a statistical significance difference [F(3, 121) = 29.434, p < 0.001] in the WOMAC total score. The group with neuropathic-like symptoms and central sensitization related signs and symptoms (mean =  $19.2\pm7.4$ ) or neuropathic-like symptoms (mean =  $16.3\pm6.3$ ) had slower velocity than the group without these symptoms (mean =  $11.6\pm3.5$ ) with a statistical significance difference [F(3, 121) = 10.045, p < 0.001] in the TUG test.

*Conclusion:* Participants with knee osteoarthritis and neuropathiclike symptoms or central sensitization pain phenotype have greater functional limitations than their counterparts.

*Implications:* Identifying distinct pain phenotypes in patients with knee osteoarthritis is endorsed to treat these patients adequately. The phenotype with neuropathic plus central pain component share similarities with patients with neuropathic-like symptoms, except for the conditioned pain modulation. Measuring the factors that affect the functionality in patients waiting for knee replacement may contribute to assertive decision-making. In this sense, the presence of neuropathic-like symptoms or central sensitization leads to a unfavored clinical outcomes in patients with knee osteoarthritis. *Keywords:* Osteoarthritis, Neuropathic Pain, Central Sensitization

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

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# LIFESTYLE HABITS, COMORBIDITIES AND KIDNEY FUNCTION IMPAIRMENT OF ADMISSION AND AFTER HOSPITAL DISCHARGE OF PATIENTS WITH COVID-19

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*Background:* The acute phase of Covid-19 in patients with a higher burden of disease and aggravating risk factors is characterized by the occurrence of a multisystemic inflammatory syndrome. Regarding the complications described the development of acute kidney injury has been associated with the occurrence of worse outcomes, higher morbimortality and complications in human functionality.

*Objective*: To assess the presence of lifestyle habits and the occurrence of changes in kidney function at admission and after the acute phase of Covid-19 in subjects that were hospitalized.

*Method*: Cross-sectional study, conducted from March to September 2021 in post-intensive care nucleus of the university hospital. That were included men and women aged 35-75 years with laboratory confirmation of Covid-19 and creatinine result. Lifestyle habits such as smoking, and alcoholism and comorbidities (at the hospital admission and discharge) were considered and evaluated. Data about the period of admission to the intensive care unit (ICU) and hospital in days were also included. The kidney function was evaluated according to serum creatinine levels (Crs) and estimate glomerular filtration rate (eGFR), that it is an estimate of the rate of clearance of Crs by the kidneys, it was calculated by the CKD/EPI equation in the patient's admission and after hospital discharge. The results were presented with relative and absolute frequencies and mean and standard deviation.

*Results:* 37 patients with an average age of 56.61  $\pm$ 10.04 years were evaluated, 51.4% (n=19) were women and 29.7% (n=11) were smokers and alcoholics. The most common comorbidities in the hospital admission were a high blood pressure 70,2% (n=26), obesity 56.7% (n=21), dyslipidemias 29.7% (n=11), diabetes mellitus type 2 29.7% (n=11), coronary artery disease 10.8% (n=4). After the Covid-19, this number increased of 2.7%, 13.7%, 5.4, 5.4% and 2.7%, respectively. The average period of days in the ICU and hospital was 16.94  $\pm$ 14.29 and 31.48  $\pm$ 20.97 respectively. Concerning the Crs level, 27% (n=10) of the sample presented elevation, which led to the need for hemodialysis.

*Conclusion*: Individuals with a history of smoking, alcohol consumption and multiple comorbidities evolved with kidney function change after the acute phase of Covid-19.

*Implications*: The kidney functionality of individuals with higher burden of disease may be compromised in the short and medium term after the acute phase of Covid-19.

*Keywords*: SARS-CoV-2 infection, Kidney function tests, Physical functional performance

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# RANDOMIZED CONTROLLED TRIAL PROTOCOL: EFFECTIVENESS OF CRYOTHERAPY ON FUNCTION, PAIN, EDEMA AND RANGE OF MOTION IN ACUTE ANKLE STRAIN

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