Brazilian Journal of Physical Therapy 29 (2025) 101263

Brazilian Journal of Physical Therapy

https://www.journals.elsevier.com/brazilian-journal-of-physical-therapy

Resumos II Fórum Discente ABRAPG-Ft 2025

1

CARDIAC AUTONOMIC MODULATION BEHAVIOR IN RESTING ASTHMATIC WOMEN

Gabriele Da Dalto Pierazzo, Cássia Da Luz Goulart, Lêda Leonôr Mendonça Carvalho, Ester Laura Cordeiro Oliveira Costa, Adriana Sanches Garcia de Araujo
Universidade Federal de São Carlos (UFSCar), São Carlos, SP, Brazil

Background: Asthma is characterized by obstruction to expiratory airflow, reversible, and respiratory symptoms such as shortness of breath, wheezing and coughing. In addition to these, asthmatic individuals often present systemic repercussions of the disease, with changes in the cardiovascular system being particularly common, particularly changes in cardiac autonomic control.
Objectives: To compare the behavior of cardiac autonomic modulation at rest in controlled and healthy asthmatic women.
Methods: After ethical approval, 34 female participants were included, non-smokers, aged between 18 and 40 years, with and without a medical diagnosis of asthma. The participants underwent analysis of their heart rate at rest for 10 minutes, using a chest sensor that records cardiac signals. After completion of collection, the data was stored and transferred to the software for analysis in the time domain: mean heart rate interval (Mean iRR), mean heart rate (Mean HR), square root of the mean squared differences of the RR intervals (RMSSD) and pNN50 and time domain: low frequency (LF) domain indices that indicate sympathetic modulation, high frequency (HF): parasympathetic activity and the LF/HF: sympathovagal balance. The Shapiro-Wilk test was applied to verify the distribution of data, which were expressed as mean and standard deviation (SD) values. To analyze the results, the Independent Student's T Test was used.
Results: During the rest period, there was a predominance of sympathetic activity in asthmatic women observed through the LF time variable (61 $\pm$ 16 vs 40 $\pm$ 14) and lower values of parasympathetic activity, verified through the HF index (38 $\pm$ 16 vs 59 $\pm$ 14), when compared with healthy participants, respectively. Additionally, lower RMSSD values, representing parasympathetic, were found in asthmatic participants (39$\pm$28 vs 65$\pm$45) and higher Mean HR values (74$\pm$13 vs 69$\pm$10) and lower Mean iRR values (826$\pm$142 vs 882$\pm$121) were observed in asthmatic women, respectively.
Conclusion: Asthmatic women present changes in the behavior of cardiac autonomic modulation at rest, showing greater sympathetic activity, which differs from what was expected. For future research, we suggest investigating different classifications of asthma, as well as comparing men and women.
Implications: These results may open new possibilities for additional studies and encourage the implementation of individualized protocols for this population.

Keywords: Asthma, Heart Rate, Women

Conflicts of interest: The authors declare no conflict of interest.
Funding: CAPES - Finance Code 001 and CNPq.
Ethics committee approval: CAAE: 73351123.5.0000.5504.
Registration: Not applicable.

https://doi.org/10.1016/j.bjpt.2025.101264

2

ASSOCIATION BETWEEN SEDENTARY BEHAVIOR AND RISK OF FALLS IN INDIVIDUALS ON HEMODIALYSIS

Luciana Angélica da Silva de Jesus[a,b], Luciano Luporini Menegaldo[b], Gabrielle Gomes Queiroz[a], Helena Mucci[a], Letícia Maria Do Carmo Corrêa[a], Ricardo Enrico Rocha Moreira[a], Leda Marília Fonseca Lucinda[a], Maycon Moura Reboredo[a]
[a] *Pulmonary and Critical Care Division, Hospital Universitário da Universidade Federal de Juiz de Fora (UFJF), Juiz de Fora, MG, Brazil*
[b] *Postgraduate Program in Biomedical Engineering/COPPE, Universidade Federal do Rio de Janeiro (UFRJ), Rio de Janeiro, RJ, Brazil*

Background: Individuals with chronic kidney disease in hemodialysis have a high risk of falls. Additionally, these individuals present high sedentary time. The relation between sedentary behavior and the risk of falls needs to be investigated for individuals on hemodialysis.
Objectives: The primary aim of this study was to verify the association between sedentary behavior and the risk of falls in individuals on hemodialysis. The secondary aims were to identify the incidence of falls and to compare the sedentary behavior between fallers (at least one recording of falls) and nonfallers (without recording of falls).
Methods: This 12-month prospective study included individuals in regular hemodialysis. Sociodemographic, clinical, and laboratory data were recorded from an interview. Sedentary behavior was evaluated by the sedentary time recorded on dialysis and nondialysis days using a triaxial accelerometer (wGT3X-BT, ActiGraph). The accelerometer was positioned on the individuals' dominant waist, and they were instructed to wear it for eight consecutive days during waking hours. After the initial assessment, the occurrence of falls was monitored monthly for 12 months according to the fall definition as an unexpected event in which the individual came to rest on the ground, floor, or lower level. A descriptive analysis was conducted and comparisons between fallers and nonfallers were made by Student T-test. Unadjusted and adjusted logistic regression models investigated the association between sedentary time and the