

Artery Research Vol. **25(S1)**; 2019, *p*. S146 DOI: https://doi.org/10.2991/artres.k.191224.132; ISSN 1872-9312; eISSN 1876-4401



https://www.atlantis-press.com/journals/artres

P106 Effect of Açaí-Juçara on Central Pressure in Individuals with Overweight or Obesity

Tainah Ortiz¹,*, Fernanda Gorski², Tatiana Lehnen³, Liliana Boll¹, Bruna Eibel¹, Alexandre Lehnen¹, Eduardo Barbosa⁴

 $^{1}Institute\ of\ Cardiology\ of\ Rio\ Grande\ do\ Sul/Foundation\ University\ of\ Cardiology,\ Porto\ Alegre,\ Brazil$

ABSTRACT

Introduction: Açaí-juçara is a fruit with a antioxidant content that can modify the vascular environment and attenuate the effects of obesity.

Objective: To evaluate the effect of açaí-juçara on pulse pressure parameters in overweight or obese individuals.

Methods: Randomized clinical trial with 23 individuals of both sexes, 37.7 ± 1.5 y, body weight 85.0 ± 4.8 kg, BMI 32.4 kg/m². The volunteers were randomly assigned to: control group (C, n = 10) and açaí-juçara group (AJ, n = 13). Both received hypocaloric diets, representing 20% below the total energy value. AJ received, in the composition of the diet, 200 g of açaí-juçara for daily consumption. The intervention was 12 weeks and the follow-up was performed with weekly meetings. We analyzed parameters of peripheral blood pressure: systolic blood pressure (SBP) and diastolic blood pressure (DBP); parameters of central blood pressure: central pulse pressure (PPc), central systolic blood pressure (SBPc) and pulse wave velocity (PWV) with the oscillometric method (Mobil-O-Graph). Descriptive statistics (mean ± standard deviation) were performed and normality of the data was tested by Shapiro-Wilk. Possible differences were tested by ANOVA of repeated measures (Bonferroni post-hoc) with significance level of 5%. Results: After 12 weeks of intervention, body weight decreased in both groups ($C: \Delta 3.2$ kg; p = 0.050; AJ: $\Delta 5.2$ kg; p = 0.001). The peripheral SBP, PPc and PWV was lower in both groups ($C: \Delta 3.8$ mmHg, p = 0.040, AJ: $\Delta 7.1$ mmHg, p = 0.031); ($C: \Delta 5.5$ unit, p = 0.044; AJ: $\Delta 7.8$ unit, p < 0.001); (p = 0.047) with greater effect in the AJ group ($\Delta 0.4$ unit; p = 0.006). Both groups reduced SBPc with more effect in the AJ group ($\Delta 6.3$ mmHg, p = 0.034).

 $\textbf{Conclusion:} \ \ \textbf{AJ showed benefits on peripheral SBP, PPc, PWV and SBPc when compared to the control group.}$

© 2019 Association for Research into Arterial Structure and Physiology. Publishing services by Atlantis Press International B.V. This is an open access article distributed under the CC BY-NC 4.0 license (http://creativecommons.org/licenses/by-nc/4.0/).

²Federal University of Health Sciences of Porto Alegre (UFCSPA), Porto Alegre, Brazil

³Thyroid Section, Endocrine Division, Hospital de Clínicas de Porto Alegre, Porto Alegre, Brazil

⁴Hypertension League, Porto Alegre, Brazil