



# P147 Association Between Inflammatory Markers of Low Intention and Arterial Stiffness

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## ABSTRACT

Extracellular and biochemical changes in the vessel contribute to the stiffening, this process is determinant for the increase of the Pulse Wave Velocity (PWV) and subsequent increase of the central and brachial arterial pressures [1,2]. These vascular alterations are denominated of TOD (target organ damage) and represent a point of association between cardiovascular risk factors and cardiovascular events [2,3]. Chronic low-grade inflammation associated with endothelial dysfunction and increased number of biomarkers, such as ultra-sensitive C-reactive protein (hsCRP), cytokines such as interleukins, fibrinogen, platelets, leukocytes and hematocrit [4,5,6].

**Methods:** A cross-sectional exploratory study on a representative population of a community in Salvador-Bahia-Brazil. The data came from a including 301 individuals. 150 were initially assessed from December 2016 to May 2019. PWV measurement for the carotid-femoral by an ATCor SphygmoCor, data not demonstrated in this poster. Blood samples were collected to biochemistry analysis, ADVIA1800<sup>®</sup> (SiemensHealthcare Japan/Canada). The committee for research on human was done.

**Results:** The data show a predominance of women (65%). Changes in leukocytes, platelets and hematocrit were more prevalent in men, as observed in Table 1. Mean values of changes in ultra-sensitive CRP values were higher in women (0.43) than in men (0, 25).

**Conclusion:** Studies correlate the markers evaluated in this study as positive predictive factors for arterial stiffening. Data from the literature show these preliminary changes present in the male population, as observed in our population. The cytokines IL-1, 6 and 18, the chemokines MCP-1 and 3 and the adhesion molecules VCAM, ICAM are being evaluated to better respond to these findings.

Table 1

	WBC	HEMATOCRIT	PLATELETS
Column B vs Column A	WBC vs WBC	Ht WOMAN vs Ht MAN	PLAT WOMAN vs PLAT MAN
Unpaired <i>t</i> -test			
<i>p</i> -value	0.0004	0.0246	0.0337
<i>p</i> -value summary	***	*	*
Significantly different ( <i>p</i> < 0.05)?	Yes	Yes	Yes
One- or two-tailed <i>p</i> -value?	Two-tailed	Two-tailed	Two-tailed
<i>t</i> , <i>df</i>	<i>t</i> = 4.840, <i>df</i> = 12	<i>t</i> = 2.980, <i>df</i> = 6	<i>t</i> = 2.397, <i>df</i> = 12
How big is the difference?			
Mean of column A	8950	-3.567	311.3
Mean of column B	5767	3.167	250.2
Difference between means (B - A) ± SEM	-3183 ± 657.7	1.197	-61.09 ± 25.49
95% confidence interval	-4616 to -1750	-6.496 to -0.6378	-116.6 to -5.553
R squared (eta squared)	0.6613	0.5968	0.3237

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