

Castelli Indices and Hypertension in a Population of Pernambuco, Brazil

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Castelli indices (Total Cholesterol/HDL-cholesterol) and II (LDL-cholesterol/HDL-cholesterol) present a relationship with cardiovascular diseases such as hypertension. This present study aims to investigate the correlation among hypertension and the Castelli indices in the population of Pernambuco, and the frequency of hypertension in this population. For this, 554 subjects were randomly selected in the population. The subjects were in a fasting state of twelve hours and had their blood sample collected. The seric levels of Total Cholesterol and HDL-cholesterol were determined by enzymatic methods (LABTEST, MG) along with the LDL-cholesterol levels, which were obtained by the Friedwald equation. The pressoric levels were determined according to the Brazilian Society of Hypertension. Z correlation test and significance levels lower than 0,05 were used for the data analysis. The systolic arterial pressure (SAP) levels correlated positively with both indices I e II ($r=0,224$, $p<0,0001$; $r=0,159$, $p=0,0002$), that is, how higher the indices, higher the SAP values. The diastolic arterial pressure (DAP), correlated only with the index I ($r=0,132$, $p=0,0018$), without correlation with index II ($r=0,070$, $p=0,1047$). Therefore, it was noticed that these indices present a close association with hypertension and, possibly, they can be used as a hypertension indicative. However, more studies need to be done, mainly, about the correlation with DAP, but other studies point that the elevation of SAP values is more related to cardiovascular disease than DAP.

Key words: Cardiovascular Diseases, LDL-cholesterol/HDL-cholesterol, Systemic Arterial Hypertension, Total Cholesterol /HDL-cholesterol.

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