

## Chronic Schistosomiasis Causes Pro-atherogenic Changes in Plasma Concentrations of Apoproteins A-I and B.

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Schistosomiasis is a parasitic disease that affects 200 million people worldwide. Studies have shown a close relationship between inflammatory and/or infection state with disorders in lipid metabolism, including linking with the pathogenesis of atherosclerosis. Recently, Apoprotein A-I (Apo A-I), the main protein constituent of HDL; the Apoprotein B (Apo B), main constituent of VLDL, IDL and LDL; and the Apo B/Apo A-I ratio have been identified as best predictors for evaluation risk for development of atherosclerosis. Thus, this study aimed to evaluate the impact of chronic schistosomiasis in plasma levels of Apo A-I and Apo B, as well on the Apo B/Apo A-I ratio. For completion of this study, were obtained 152 blood samples from 108 infected individuals and 44 healthy subjects. Plasma concentrations of Apoproteins were obtained by immunoturbidimetric assays (Abott-Germany) and the results were analyzed by ANOVA ( $p < 0.05$ ). The infected individuals had increased levels of Apo B ( $121 \pm 6.3$ ,  $p = 0.0015$ ), reduced levels of Apo A-I ( $137.2 \pm 5.7$ ,  $p = 0.0046$ ) and was elevated to Apo B/Apo A-I ratio ( $0.93 \pm 0.0064$ ,  $p < 0.0001$ ) in these individuals when compared to Control group. Thus, it was observed that infected individuals showed a apoproteic profile similar to that found in individuals affected by cardiovascular diseases. Suggesting that infectious and/or inflammation process in chronic schistosomiasis provokes pro-atherogenic changes in the concentrations of Apo A-I and Apo B.

Key words: Apoprotein A-I, Apoprotein B, Atherosclerosis, Chronic Schistosomiasis.

Supported by: CAPES/CNPq/UFPE