

## COMPARATIVE EVALUATION OF THE ACTIVITY OF PARAOXONASE 1 (PON1) IN ADULT HEALTHY INDIVIDUALS AND IN INDIVIDUALS DISLIPIDEMICS

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Paraoxonase (PON1) is a high density lipoprotein (HDL)-associated enzyme formerly known as capable of hydrolyzing organophosphorus pesticides. Its primary physiological function is to protect low density lipoproteins (LDL) from oxidative modifications. Oxidized LDL is believed to play a central role in monocyte chemotaxis and macrophage differentiation, which are known as the early steps in the progression of diseases associated to atherogenesis. The purpose of this work was to describe PON1 activity in a group of Brazilian subjects, analyze its phenotype distribution, to compare PON1 activities between groups of subjects with different lipid profiles and search for associations between these profiles and the phenotype distribution. Our results showed a phenotype distribution with prevalence of A (39.5%) and AB (41.9%) phenotypes, and a minor proportion of B phenotype (18.6%) among studied subjects. It was observed significant differences between lipid profiles of control group in comparison to those observed in cases. These differences were also seen in PON1 % stimulation by NaCl and PON1 ratio. Results also suggest an important relationship between higher LDL levels, lower HDL levels and PON1 B phenotype.