

## عنوان مقاله:

Study of Serum Paraoxonase and High Density Lipoprotein Fractions in Diabetes

## محل انتشار:

مجله دیابت و چاقی ایران، دوره 10، شماره 1 (سال: 1396)

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## خلاصه مقاله:

Objective: Significant alteration in lipid profile and antioxidant system occurs in response to diabetes mellitus (DM). Paraoxonase (PON) is a family of three enzymes PON<sub>1</sub>, PON<sub>2</sub> and PON<sub>3</sub> associated with high density lipoprotein (HDL). The HDL in human plasma consists of two main sub-fractions HDL<sub>2</sub>C and HDL<sub>3</sub>C. We studied the HDL subclasses and HDL associated enzyme paraoxonase with respect to diabetes. Materials and Methods: The study was conducted in a tertiary care referral hospital in India. A total of 100 subjects were included in the study. Lipid profile, PON<sub>1</sub> arylesterase (ARE), PON<sub>1</sub> lactonase (LACT) and HDL fractions were estimated. Regression analysis was applied. Results: PON<sub>1</sub> ARE, LACT and HDL fractions are found to be decreased among cases than in controls. PON<sub>1</sub> ARE & LACT showed negative correlation with blood glucose levels and HDL<sub>3</sub>C while positive correlation with HDL<sub>2</sub>C. Conclusion: PON<sub>1</sub> ARE and PON<sub>1</sub> LACT activities reduction are due to increased oxidative stress. PON<sub>1</sub> as well as HDL fraction levels are oxidative stress subjects. Among the HDL fractions, HDL<sub>2</sub>C is the more variable fraction and reflects changes in HDL. The study suggested that the protective role of total HDL against oxidative damage and complications is mainly mediated through HDL<sub>2</sub>C fraction.

## کلمات کلیدی:

PON<sub>1</sub>, Arylesterase, Lactonase, HDL<sub>2</sub>, HDL<sub>3</sub>

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1814046>

