

The Relationship of Paraoxonase 1 Activity With Lipid Metabolism In Obese Women

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Abstract

Objective: The aim of this study was to identify the effects of serum lipids, apolipoprotein (apo) A-I, apo B and paraoxonase/arylesterase (PON1) activity on obesity in women.

Methods: The study was conducted on 90 subjects categorized into three groups; there were 30 women in each group with an age range of 18-48 years. Group 1 had 30 abdominal obese patients, group 2 had 30 gynoid obeses and group 3 included 30 healthy control subjects.

Results: There was a statistically significant difference between the triglyceride, high-density lipoprotein cholesterol (HDL-C), apo B, direct low-density lipoprotein cholesterol (D-LDL-C), high sensitive-CRP (hsCRP), homeostasis model insulin resistance (HOMA-IR) levels of group 1 and 2 ($p=0.001$, $p<0.0001$, $p=0.016$, $p=0.001$, $p<0.0001$, $p<0.0001$, respectively). For HDL-C, D-LDL-C, hsCRP and HOMA-IR levels, there were statistically significant differences between group 1 and 3 ($p=0.023$, $p=0.023$, $p<0.0001$, $p=0.001$, respectively). Triglyceride, apo B, HDL-C, D-LDL-C parameters differed significantly in abdominal obesity, whereas there was no difference among the groups for PON1 activity.

Conclusion: Our results indicate that lipid metabolism is altered in obesity, but PON1 activity appears not to be affected.

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