

Serum lipoproteins level in first degree relatives of women with polycystic ovarian syndrome

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Abstract

Background and Objective: Polycystic ovarian syndrome (PCOS) is one of the most prevalent (6-10%) endocrine glands disorders among child - bearing women. In addition to the patients, their first degree relatives are exposed to some risk factors such as abnormal lipoproteins. Due to high prevalence PCOS among women and the role of genetic factors in this abnormality, it is necessary to recognize high risk people particularly among first degree relative. Therefore this study was conducted to determine the level of serum lipoproteins in first degree relatives of patients with PCOS.

Materials and Methods: This case control study was done on 107 individuals of the first degree relatives of PCOS patients as cases and 107 normal individuals of the first degree of non-PCOS as controls in Shiraz, Iran during 2009. Participants completed a test assessing demographics and blood sample were taken from all participants in order to assay serum lipoproteins including total cholesterol, LDL, HDL and triglyceride. Data was analyzed by means of independent t-test and Fisher's exact test as well as Chi-Square.

Results: The means±SD of total cholesterol, HDLc and triglyceride in cases was 191±31.64, 167±4.06 and 191±31.64 mg/dl, respectively. The means±SD of total cholesterol, LDLc and triglyceride in controls was 158.25±18.25, 123±21.33 and 120.42±17.11 mg/dl, respectively. Serum level differences of LDL and triglyceride in cases and controls were significant (P<0.05). The means±SD of HDLc in cases and controls was 40.06±6.95 and 45.9±6.7 mg/dl, respectively (P<0.05).

Conclusion: This study showed that the serum level of lipoproteins in the first degree relatives of PCOS patients is significant higher than non-PCOS.

Keywords: Polycystic ovarian syndrome, lipoproteins, First degree relatives

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