

Original Paper

Cardiovascular risk factors in first relative member of patients with polycystic ovarian syndrom in Shiraz, Iran

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Abstract

Background and Objective: There is a genetic background for polycystic ovary syndrome (PCOS). Due to increase metabolic disorders, lipoproteins, impaired glucose tolerance, and hypertension in PCOS patients, this study was done to determine the cardiovascular risk factors in first relative member of patients with polycystic ovarian syndrom in Shiraz, Iran.

Materials and Methods: This case - control study was carried out on 107 parents and siblings of women with PCOS as cases and 107 non-PCOS parents and siblings of women as controls in Shiraz, Iran during 2007-08. Demographic characteristic, BMI, obesity and blood pressure were recorded for all subjects. Serum lipoproteins including total cholestrol, triglyceride, LDL, HDL and fasting blood sugar were measured in cases and controls. Data were analyzed using SPSS-16.5, independent t-test, Chi-Square and Kappa tests.

Results: 35.3%, 26.5%, 11.76% and 5.8% of fatheres in cases were considered as overweight class I, class II, class III of obesity, respectively when compared to controls. This differecne was significant ($P<0.05$). Waist –hip ratio in mothers in cases (25.6%) and controls (17.9%) were higher than 0.85. Waist –hip ratio among the sisters in case and control groups were 23.5% and 17.6%, respectively ($P<0.05$). Hypertension was observed in 12.2% of cases and 3.7% of controls. This difference was not significant. High level of triglyceride were determined in 14.94% of cases and 6.5% of controls. A significant correlation was found between BMI and diabete II in case and control groups ($P<0.05$). Disorder in glucose tolerance test (GTT) in case and control goupes were 19.62% and 7.47%, respectively ($P<0.05$). The obesity was found in 18.7%, 6.54% in cases and controls with disorder in GTT ($P<0.05$).

Conclusion: This study showed that obesity, central obesity, high level of serum lipoproteins and hypertension among first relative member of patients with PCOS are significantly higher than the controls.

Keywords: Cardiovascular risk factors, Polycystic ovary syndrome, Lipoprotein, hypertension, Obesity

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