

Serum 25-Dihydroxy Vitamin D3 Level Estimation and Insulin Resistance in Women of 18-40 Years Age Group with Polycystic Ovarian Syndrome

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Abstract : Polycystic ovary syndrome (PCOS) is a disease of endocrine and frequently encountered in women in their reproductive period, and it is characterized by clinical features of anovulation, clinical and biochemical features of hyperandrogenism, and PCOS morphology on ultrasonographic examination. In Indian scenario, only a few studies are available on the correlation of serum 25-dihydroxy vitamin D3 level and insulin level. The present study is a prospective case-control study and aims to estimate the concentration of serum 25-dihydroxy vitamin D3 and insulin resistance and determine the association of serum 25-dihydroxy vitamin D3 with insulin resistance in PCOS women of 18-40 years age group. In this study, the primary objective is to estimate the concentration of 25-dihydroxy vitamin D3, insulin, glycaemic status, calcium and phosphorus levels in 18-40 year age women with polycystic ovary syndrome and to compare these parameters with age and BMI matched healthy control of same age group women. The secondary objective is to determine the association between 25-dihydroxy vitamin D3 concentration and insulin resistance among PCOS cases in 18-40 years age group women. This study was carried on at outpatient Department of Obstetrics & Gynaecology, Aiiims Raipur. It took one year from the date of approval. In case, 32 women were diagnosed (Diagnosed PCOS cases as per Rotterdoms criteria among women of 18-40 years of age), as control group 32 women of 18-40 years of age were diagnosed As a result, serum insulin level was elevated among PCOS women along with 25-dihydroxy vitamin D3 deficiency. Conclude up, PCOS is more common in the age group of 20-40 years. There is a strong correlation between vitamin D deficiency and insulin resistance among PCOS patients.

Keywords : vitamin D, insulin resistance, PCOS, reproductive age group

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