

GDF-15 as a novel cytokine in changing of lifestyle diseases: A Manifestation of Poly Cystic Ovarian Syndrome

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Polycystic ovary condition (PCOS) is a hormonal issue basic among ladies of regenerative age. Ladies with PCOS may have inconsistent or drawn out menstrual periods or overabundance male hormone (androgen) levels. The ovaries may build up various little assortments of liquid (follicles) and neglect to routinely discharge eggs.

The specific reason for PCOS is obscure. Early analysis and treatment alongside weight reduction may lessen the danger of long haul entanglements, for example, type 2 diabetes and coronary illness.

Indications

Signs and indications of PCOS regularly create around the hour of the primary menstrual period during pubescence. Once in a while PCOS grows later, for instance, in light of significant weight gain.

Signs and side effects of PCOS shift. A finding of PCOS is made when you involvement with least two of these signs:

Sporadic periods. Rare, unpredictable or delayed menstrual cycles are the most well-known indication of PCOS. For instance, you may have less than nine periods every year, over 35 days among periods and strangely substantial periods.

Overabundance androgen. Raised degrees of male hormone may bring about physical signs, for example, abundance facial and body hair (hirsutism), and at times extreme skin break out and male-design hairlessness.

Polycystic ovaries. Your ovaries may be expanded and contain follicles that encompass the eggs. Thus, the ovaries may neglect to work consistently.

PCOS signs and side effects are ordinarily progressively extreme in case you're stout. PCOS has become one of the most common endocrine disorders and recently it has been observed that diet, genetics and lifestyle are the major contributors to the onset and progression of PCOS. Trends are alarming towards various metabolic diseases such as obesity, hypertension, diabetes, insulin resistance, iron disorders, visceral adiposity, musculoskeletal disorders and many more. PCOS is a major global public health challenge due to increased consumption of fatty foods, calorie rich food and inadequate physical activity that altered the hormonal changes, lipids or methyl glyoxal and subsequently releases a novel form of cytokines i.e. growth differential factor -15 (GDF-15). GDF-15 has recently been linked with various disease state conditions such as diabetes, NAFLD and obesity. Therefore we hypothesize that GDF-15; a novel cytokine may be differentially expressed in PCOS in comparison to non-PCOS women. Blood samples were collected from the OPD of Obstetrics & Gynecology, AIIMS, New Delhi. Each of them was screened for hormonal assay and subsequently patients were sub-grouped for PCOS (n=40), and Non PCOS (Control). Twenty five pregnant women of similar age group without PCOS were included as controls. Clinical, biochemical, hematological and other biomarkers were done for all subjects. Various markers such as adipokines, Insulin

Resistance, pro-inflammatory, and anti-inflammatory cytokine, oxidants stress index, micronutrient antioxidants, genetic polymorphism such as SNPs were done by standard methods. Multivariate analysis is under process that may provide the significant information with the association between age, genders, waist circumference, hypertension etc. GDF-15 levels have some hidden relation to changes in body weight, waist hip ratio, BMI and HOMA IR. Lower levels of vitamin A & E, Ferric reducing antioxidant in plasma and increased levels of MDA was the suggestive association in PCOS subjects. Thus, high circulating GDF-15 levels could be a novel predictive marker of PCOS patients and thus the quality of life can be improved.