OMICS International
conferenceseries.com

Polycystic Ovarian Syndrome Conference

November 16-18, 2015   Seattle, USA

Dyslipidemia and exacerbated cardiovascular disease risk in PCOS: Clinical assessment and exploration of potential mechanisms

Donna Vine

University of Alberta, Canada

Polycystic ovary syndrome (PCOS) is a metabolic-endocrine disorder that occurs in 10-18% of adolescents and young women of reproductive age. PCOS is an increasing public health concern because the incidence is highly associated with the metabolic syndrome (MetS): Obesity, insulin resistance and dyslipidemia, predisposing young women to develop Type-2 diabetes and Cardiovascular Disease (CVD). PCOS is considered a major risk factor for premature development of CVD and up to 70% of patients have atherogenic dyslipidemia, a primary risk factor for the early onset of CVD. The pathology of dyslipidemia in PCOS is linked to elevated testosterone and insulin mediated mechanisms and both of these metabolic aberrations upregulate lipidogenesis. Atherogenic dyslipidemia includes increased fasting plasma triglycerides (TG), total apolipoprotein (apo)-B and decreased High Density Lipoprotein-Cholesterol (HDL) concentrations. Recent evidence also shows non-fasting plasma apoB-remnant lipoproteins are casually associated with end-stage CVD events which support the need to assess both fasting and non-fasting apoB-remnant lipoproteins to determine early subclinical CVD risk in young women with PCOS. Clinical dyslipidemic profiles are heterogeneous in PCOS, however an exacerbated plasma lipid and apolipoprotein profile are highly associated with free testosterone and the presence of obesity and insulin resistance. Animal models used to investigate the etiology and mechanisms of dyslipidemia in PCOS demonstrate the direct involvement of testosterone and the androgen receptor in lipidogenic pathways. Safe and efficacious options to treat dyslipidemia in women with PCOS remain limited as current pharmacotherapies may be contra-indicated in young women with PCOS. The consensus is to focus on early CVD prevention with a need to assess early sub-clinical CVD risk markers and to develop effective and safe approaches to detect and manage dyslipidemia in all women with PCOS.

Biography

Donna Vine is an Associate Professor, Recipient of McCalla Professorship (2015-2016) in Teaching, Service and Research. She is the Co-Director of the Metabolic and Cardiovascular Disease Laboratory.

dvine@ualberta.ca

Notes:

Endocrinol Metab Syndr

ISSN: 2161-1017 EMS, Open Access Journal

PCOS 2015

November 16-18, 2015

Volume 4, Issue 4

Page 42