OMICS International
conferenceseries.com

Endocrinol Metab Syndr 2015, 4:4
http://dx.doi.org/10.4172/2161-1017.C1.012

Polycystic Ovarian Syndrome Conference

November 16-18, 2015 Seattle, USA

Metabolomics provides insights into the underlying mechanisms of poor quality embryos associated with PCOS

Christine Briton-Jones
Reproductive Medicine Associates of New York, USA

Metabolomics offers the promise of a new non-invasive tool for identifying the underlying causes of poorer embryo development from women with PCOS. The association between poorer reproductive outcomes and the diagnosis of PCOS has been established for decades. However the underlying mechanism leading to poorer embryo development in this patient type remains unknown. Metabolomics is the study of metabolites consumed from or secreted into the embryo culture media, in which the embryo has been developing. Highly sensitive ultra-high performance liquid chromatography coupled to mass spectrometry (UPLC-MS) methods allows the identification of metabolites present in volumes of 50 micro liters. Recent studies have discovered differences in the concentration of saturated fatty acids in the spent culture media of embryos from women with PCOS compared to embryos from non-PCOS women. Fatty acids are widely accepted as potential metabolic substrates for of oocytes and embryos and an alteration in their abundance has been shown to lower competency of bovine oocytes and embryos. By elucidating the underlying mechanisms behind the lower implantation potential of embryos from women with PCOS, current treatments may be modified to improve outcomes and new treatments can be developed specifically for women with the diagnosis of PCOS.

cbritonjones@rmaofny.com

Nutrition and lifestyle medicine for women's health

Deanna Minich
American College of Nutrition, USA

The lifecycle is a spectrum of change and perhaps even more so for women than for men. For most of the 20th century, the woman's lifecycle and corresponding health issues have not been a prime focus for the medical community despite the fact that scientific research indicates that women experience certain symptoms and diseases differently from men. However, the times are changing consistent with the flux in demographics. It has been predicted by the World Health Organization (WHO) that by the year 2025, 1.1 billion women worldwide will be age 50 or older, going through the menopausal transition. In fact, more women are going through menopause now more than any other time and with the increased longevity experienced by women compared with men, the implication is that more than one-third to even one-half of a woman's life will be in her postmenopausal phase. Some woman experience physiological and psychological distress as their hormones begin to shift, which can begin as early as 10 to 15 years before menses completely stop. Although the "change of life" is the end of a woman's reproductive years, it does not have to mean withdrawal from an active, vibrant life. Conventional medical care has had little to offer these women in the way of relief but by using a functional medicine approach, the clinician is empowered to assist the patient in making diet and lifestyle modifications that can make a significant difference. An understanding of the body's changes during this unique phase of life and personalized nutritional solutions can assist the female patient in living well and remaining healthy throughout the second half of her life spectrum. In this presentation, the author will provide a whole-self, lifestyle medicine approach to women's health through the lifespan, including scientific developments and clinical protocols for autoimmune disease, PCOS, PMS, premature peri-menopause, peri-menopausal symptoms and ovarian and breast health. As we move along the lifecycle, we will discuss conditions associated with post-menopause such as osteoporosis, body composition challenges, cardiovascular health and metabolic syndrome.

Notes:

laura@foodandspirit.com