EuroSciCon

DAY 1

Keynote Forum

4th World Congress on

Polycystic Ovarian Syndrome

June 07-08, 2018 | London, UK

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George B Kudolo, J Clin Mol Endocrinol 2018, Volume 3
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GINKGO BILOBA EXTRACT AND THE PCOS PATIENT: PERSPECTIVES FROM THE SAN ANTONIO CLINICAL TRIALS

George B Kudolo

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Ginkgo biloba extract is one of the most common dietary supplements ingested by a wide cross section of the United States population and therefore most likely to be used by women suffering from polycystic ovarian syndrome (PCOS). PCOS is an ovarian disorder associated with excess androgen in women, the cause of which includes hyperinsulinemia secondary to insulin resistance. The major objective of our study was to determine who might benefit from the use of *Ginkgo biloba* extract. This presentation will discuss the results of a decade of studies in healthy, non-diabetic and type 2 diabetic subjects, showing that ingestions of 120 mg of *Ginkgo biloba* extract (as a single dose) daily for three months, had the following significant effects ($p<0.05$) (a) decreased collagen-mediated platelet aggregation accompanied by reduction in urinary 11-dehydro-TXB_2 and prostacyclin metabolites, (b) decreased platelet *in vitro* arachidonic acid-mediated TXB_2 production, (c) reduced platelet malondialdehyde, an index of lipid peroxidation, and (d) increased pancreatic beta cell insulin and C-peptide production, most significantly in type 2 diabetic subjects with pancreatic exhaustion. In a randomized double-blind placebo-controlled crossover study, and using a 2-step euglycemic insulin clamp technique, it was found that ingestion of *Ginkgo biloba* extract did not affect glucose metabolic rates at low (10 mU/m2/min) or high (40 mU/m2/min) insulin infusion rates in healthy, non-diabetics, those with impaired glucose tolerance or overt type 2 diabetic subjects. Co-ingestion of Ginkgo with 500 (500 mg), a diabetes treatment which may also be prescribed for PCOS patients, did not significantly affect the pharmacokinetic properties of metformin. In conclusion, while all persons might benefit from the ingestion of *Ginkgo biloba* extract, physicians might want to caution PCOS patients about the possibility of an increase in ovarian theca cell androgen production, even though *Ginkgo biloba* extract ingestion is unlikely to increase whole body insulin resistance or affect metformin pharmacological activity.

Biography

George B Kudolo primarily teaches Clinical Chemistry in the Undergraduate Clinical Laboratory Sciences Program, and Forensic Toxicology in the Graduate Toxicology Program. His university is UT Health San Antonio, USA. His research interests are in Reproduction, Nutrition, Diabetes, Complementary and Alternative Medicine (CAM). He has conducted clinical trials with the herbal supplement. His other interests are the effect of herbal remedies in general on interpretation of diagnostic laboratory tests and forensic drug tests, and conventional drug-herb interactions.

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HOW TO PREVENT AND MANAGE MULTIFARIOUS POLYCYSTIC OVARY SYNDROME (PCOS)?

Marion Eckert-Krause

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Background: One of the main health risk factors is overweight/obesity and this is one player in all multifactorial metabolic-endocrinology disorders of PCOS. Gaps exist in diagnostic, treatment and prevention. A major role in management of PCOS plays a healthy lifestyle—also to be seen a key for prevention. Assisted by well-balanced diet, regular exercises and based on factual diagnostic as well as balancing and coaching health risk factors which probably enable PCOS, it could be treated and used for prevention. DEBEC-Systematic with its related method is a new approach in health coaching for chronic metabolic diseases to support patients helping themselves. DEBEC delivers the following modules: diagnostic, eating, balance, exercise, and coaching.

Method: DEBEC-Method ™ was used to manage diagnosed PCOS within a case study. The method was also tested in overweight female and male patients. To know about prevention measures, a short inquiry was done using PubMed, with the keywords "PCOS and prevention".

Result: The case studies with a PCOS-diagnosed and an overweight patient were conducted to show how an individual based therapy with defined modules (DEBEC-Method ™ derived from DEBEC-System) can be successfully related to health risk reduction and be suitable for daily use. Prevention measures for PCOS are not existent but some articles to prevent other comorbidities.

Conclusion: Therapy with defined modules (DEBEC) is a sustainable and successful method within overweight/obesity related diseases. Suitable for daily use, the trained patient is enabled to maintain a healthy lifestyle. This patient orientated approach could be the key for prevention measure. Overweight and obesity with signs of insulin resistance and lipid metabolism should alert the medical fraternity. Because of a rather poor study situation, there is need for action. Long-term studies are recommended including body fat distribution in young girls.

Biography

Marion Eckert-Krause is a Specialist in Metabolic Diseases. After training as a Practice Nurse and Gardener, she studied Biology and Waste Management, and then worked for several years in Field Sales before moving to Internal Sales via Key Account Management. She spent nearly 10 years in Sales Operations before earning a Doctorate in Medicine. Since then, she has worked in Quality Management and began with PCOS research. She developed the DEBEC-Method® and ran several case studies with menopausal/postmenopausal women including PCOS-diagnosed patients. Since 2012, she is actively joining congresses in USA, Switzerland, Germany and Austria. Her institute, Fachinstitut für Stoffwechsel und Gesundheit—"FISGES" was founded in 2014 to take care of the PCOS-patients' needs with a focus on defined study. Since 2017, she is a Lecturer at the Private University in the Principality of Liechtenstein (UFL). Since 2018, DEBEC-Method® is registered with number 295512 at the Austrian Patent and Trademark Office.

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M A Hasanat, J Clin Mol Endocrinol 2018, Volume 3
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POLYCYSTIC OVARIAN SYNDROME—STUDIES IN BSMMU, BANGLADESH

M A Hasanat

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The polycystic ovary syndrome (PCOS) is characterized by hyperandrogenism, ovulatory dysfunction, and polycystic ovarian morphologic features. PCOS affects 6 to 10% of women of reproductive age. Marked controversy surrounds the pathophysiology and management issues of PCOS. One school proposes it to be a reproductive disorder while other one considers it as an endocrine disorder. In fact PCOS is an endocrine disorder with adverse reproductive outcome and associated with cardiometabolic abnormalities like impaired glucose tolerance, type 2 DM, dyslipidemia, subclinical vascular disease and an increased risk of cardiovascular disease. Controversies exist on the prevalence of insulin resistance and metabolic derangement among different PCOS phenotypes. In our studies, women with phenotype A and B have been found to have worse metabolic profiles and higher prevalence of cardiovascular risk factors compared with phenotype C and D. Similarly, amenorrhoea and oligo-amenorrhoea were found to have worst metabolic profile and insulin resistance compared with eumenorrhoea. Although serum antimüllerian hormone levels and prostate specific antigen correlate with the sonographically determined antral follicle count and ovarian volume, the diagnostic usefulness of these in women with PCOS is uncertain. Similarly, no definitive association could be ascertained from our studies. Biochemical parameters of hyperandrogenemia, including total testosterone, free androgen index and testosterone dihydrotestosterone ratio were studied, and have been found to significantly correlate with clinical parameters. There is controversy regarding thresholds for diagnosis in adolescents and peri-menopausal women and the most appropriate therapeutic approaches for these patients. Metformin is found to have significant role in the management as insulin resistance is the key etiopathogenic factor in PCOS, which was also evidenced in our randomized control trial. PCOS lies at the crossroad of metabolic and reproductive disorder and a multi-systemic approach with involvement of the concerned specialties is required for successful outcome.

Biography

M A Hasanat holds an MPhil and MD degree in Endocrinology and is currently working as Professor and Chairman in the Department of Endocrinology, Bangabandhu Sheikh Mujib Medical University (BSMMU), Dhaka, Bangladesh. He has more than 50 original articles published in reputed national and international journals. His major research areas are Diabetes (special fascination in gestational diabetes mellitus—GDM and diabetes of young), PCOS and Infertility, Thyroid Autoimmunity and Childhood Obesity. He is also working as an Editor *(American Research Journal of Endocrinology, International Journal of Diabetes*, and Diabetes & Obesity International Journal of different open access journals.

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J.C.Paredes Palma, J Clin Mol Endocrinol 2018, Volume 3
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COMPARATIVE TREATMENT BETWEEN SITAGLIPTIN VS. METFORMIN, ALONE OR IN COMBINATION, IN PATIENTS WITH POLYCYSTIC OVARY SYNDROME. A CLINICAL ENTITY AT HIGH RISK FOR DEVELOPING DIABETES MELLITUS AND GESTATIONAL DIABETES: A PILOT STUDY

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Objective: To determine the efficacy of sitagliptin alone or in combination with metformin in women with polycystic ovary in terms of ovarian cyclicity, fertility and cardiometabolic profile compared to metformin alone.

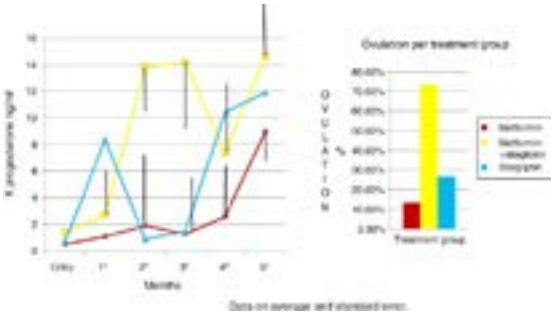
Rationale: Polycystic ovarian syndrome (PCOS) affects a percentage of 5–10% of women of reproductive age worldwide and has a prevalence of 6.6% (95% CI: 2.3–10.9%) in Mexican women and most common cause of infertility in developed countries. Treatment with insulin sensitizing drugs (metformin and pioglitazone) has been shown to improve menstrual cyclicity and fertility in the metabolic profile with polycystic ovarian patients. Incretins and DPP-4 inhibitors have been shown to enhance pancreatic β cell activity, increasing weight loss by its anorexic effect and resulting in an adequate weight control and improved fertility. Previous evidence has compared the effect of exenatide and alone or in combination with metformin in the treatment of PCOS, in this article we will compare sitagliptin and metformin alone or in combination.

Study design: Blind, controlled and randomized clinical trial.

Patients: Women between 18 and 40 years of age, with a BMI >20 and diagnosed with PCOS with the Rotterdam criteria.

Results: In the normalized index of menstruations it was found that there was a statistically significant intragroup increase in each one of the treatments. With a higher percentage of change, that of metformin with 80%, followed by that of sitagliptin with 65% and then COMBO with 30%. No statistically significant differences were found between treatment groups.

Conclusion: Therapeutic effect of sitagliptin was observed in patients with PCOS comparable to metformin and the combination of metformin-sitagliptin is more effective in terms of ovulation than the other two treatments alone.



Biography

Dr. Juan Carlos Paredes Palma is a Specialist in internal medicine, Subspecialist in Endocrinology, Biology of human reproduction and endocrine gynecology, has a Master in Medical Sciences and a PHD in Health Sciences. He has held various positions in one of the most important public health institutions in Mexico; Institute of Social Security and Health of workers of the State, (ISSSTE), was National Coordinator of Clinical Research, Head of Teaching of the Hospital Dr. Darío Fernández Fierro of Mexico City and currently is the Head of Teaching and Research of the Delegation South of ISSSTE. He was the winner of The National Research prize of the ISSSTE in 2015.

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