FCS470 | METABOLIC SYNDROME IN WOMEN WITH POLYCystIC OVARIAN SYNDROME: AN INDIAN PROSPECTIVE THEME: AB 05 REPRODUCTIVE MEDICINE/SUB-THEME: AB 5.1 REPRODUCTIVE ENDOCRINOLOGY

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Objectives: Metabolic syndrome is a cluster of endocrine disturbances including insulin resistance, dyslipidemia, obesity and hypertension. It is highly prevalent in polycystic ovarian syndrome. The objectives were to find out the prevalence of metabolic syndrome in women with polycystic ovarian syndrome.

Method: A prospective cross-sectional study was planned on women with polycystic ovary syndrome who attended Gynaec out patient Department at MK Nursing Home, Chennai, Tamil Nadu, India from January 2016 to February 2018. Total of 104 women with PCOS were enrolled after the diagnosis of PCOS based on Rotterdam criteria 2013. Metabolic syndrome diagnosed as per modified national cholesterol education program’s adult treatment panel III. The data were analysed statistically.

Results: Out of 104 patients with PCOS 34.7% had metabolic syndrome. The prevalence of individual components of the metabolic syndrome among PCOS patients were waist circumference ≥78 cm (75%). High Density lipoprotein (HDL-C) less than in 65 (62.25%), tri-glycerids ≥150 mg/dl in 26 (25%), blood pressure ≥130/85 mmHg in 6 (5.7%) and fasting plasma glucose ≥100 mg/dl in 26 (25%). Mean BMI in the study group was 26.19 kg/m². The prevalence metabolic syndrome was found to increase with body mass index. Waist circumference and dyslipidemia were common than impaired fasting glucose among PCOS.

Conclusions: Metabolic syndrome was seen in young women with PCOS cases in our study. This highlights the need for comprehensive screening and educational programs for women with PCOS beginning at an early age to reduce the long term risk of diabetes and cardiovascular diseases. As there were abnormalities in waist circumferences and dyslipidemia, so it can be taken as a predictors of metabolic syndrome in women with PCOS.

FCS471 | MONITORING SLEEP PATTERNS CHANGE ACROSS THE MENSTRUAL CYCLE USING WERABLE SENSORS

THEME: AB 05 REPRODUCTIVE MEDICINE/SUB-THEME: AB 5.1 REPRODUCTIVE ENDOCRINOLOGY

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Objectives: Recent advances in wearable sensor technology allow for amassing unprecedentedly detailed physiological profiles for large numbers of individuals for long periods of time with minimal invasiveness and cost. The major use of wearables to date has been to study different effects of activity on health. In this study, we evaluate the use of these devices, with reference to clinical measurements, in assessing the association of sleep patterns and quality with the menstrual cycle and its phases.

Method: Healthy women, with self-reported regular cycles (23<cycle length<36), aged 18–42 were recruited for a prospective observational study. Participants wore the Ava bracelet daily for up to one year. Based on the biophysical parameters recorded by the bracelet, sleep and its phases were determined (deep-sleep=N2+N3 from AASM). Ovulation day was estimated using a home LH-urine test.
FCS472 | MYO-INOSITOL AS SAFE AND ALTERNATIVE APPROACH IN THE TREATMENT OF INFERTILE PCOS WOMEN
THEME: AB 05 REPRODUCTIVE MEDICINE/SUB-THEME: AB 5.1 REPRODUCTIVE ENDOCRINOLOGY

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Objectives: The use of 2×2000 mg myo-inositol+2×200 μg folic acid per day is a safe and promising tool in the effective improvement of symptoms and infertility for patients with a polycystic ovary syndrome (PCOS). In addition, polycystic ovarian syndrome (PCOS) is one of the pathological factors involved in the failure of in vitro fertilization (IVF). Typically, PCOS patients suffer of poor quality oocytes.

Method: In an open, prospective, non-blinded, non-comparative observational study, 3602 infertile women used myo-inositol and folic acid between 2 and 3 months in a dosage of 2×2000 mg myo-inositol+2×200 μg folic acid per day.

In a subgroup of 32 patients, hormonal values for testosterone, free testosterone and progesterone were analyzed before and after 12 weeks of treatment. The mean time of use was 10.2 weeks. For statistically analyses a student’s t-test was performed.

Results: Seventy percent (70%) of the women had a restored ovulation, and 545 pregnancies were observed. This means a pregnancy rate of 15.1% of all the myo-inositol and folic acid users. In 19 cases a concomitant medication with clomiphene or dexamethasone was used. One twin pregnancy was documented. Testosterone levels changed from 96.6 ng/ml to 43.3 ng/ml and progesterone from 2.1 ng/ml to 12.3 ng/ml in the mean after 12 weeks of treatment (p<0.05) Students t-test. No relevant side effects were present among the patients.

Conclusions: Myo-inositol has proven to be a new treatment option for patients with PCOS and infertility. The achieved pregnancy rates are at least in an equivalent or even superior range than those reported using metformin as an insulin sensitizer. No moderate to severe side effects were observed when myo-inositol was used at a dosage of 4000 mg per day. In addition, our evidence suggests that a myo-inositol therapy in women with PCOS results in better fertilization rates and a clear trend to a better embryo quality.