PP106 - SEXUAL FUNCTIONING, ATTACHMENT STYLE AND ALEXITHYMIA AMONG PREGNANT AND NONPREGNANT WOMEN

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Introduction. Pregnancy is characterized by peculiar changes regarding psychological and sexological aspects in woman. The aim of this study was to assess sexuality, alexithymia and attachment styles in pregnant and non-pregnant women. Methods. We recruited 76 pregnant women and an age matched group composed by 81 non-pregnant women. Then, we administered a psychometric protocol composed by FSFI, RQ , TAS-20.

Results. Women during pregnancy showed a significant higher score in secure attachment (pregnant women=5.6±1.45 vs. non-pregnant=4.0±1.9; $p<0.05$) and a significant lower score in preoccupied and fearful attachment (pregnant women=1.4±1 vs. non-pregnant=2.8±1.9; $p<0.05$). Also the levels of alexithymia significantly decreased in pregnant women compared to non-pregnant (pregnant women=41.8±11 vs. non-pregnant=45.6±9.9; $p<0.05$). Moreover vaginal lubrication and sexual pain significantly decrease in pregnant women.

Conclusions. This study demonstrated several differences between pregnant and nonpregnant women, in terms of sexual pain and lubrication, levels of alexithymia and confidence in the relationship. In particular, the high level of secure attachment during pregnancy represents the most interesting result. In this regard, possible neurendocrinological implications about the relationship among hormones, attachment styles and pregnancy could be furtherly hypothesized.

PP107 - IMPACT OF OBESITY, INSULIN RESISTANCE AND HYPERANDROGENISM ON STEATOSIS AND FIBROSIS RISK IN YOUNG FEMALES WITH PCOS

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Background: Obesity and insulin resistance (IR) represent a common pathogenic background of polycystic ovaric syndrome (PCOS) and nonalcoholic fatty liver disease (NAFLD).

Aims: We evaluated whether PCOS is a risk factor for steatosis and, subsequently, the impact of IR and hyperandrogenism on steatosis and fibrosis in PCOS.

Methods: We considered 202 consecutive nondiabetic PCOS patients and 101 age-matched controls. PCOS was diagnosed applying the Rotterdam diagnostic criteria. Steatosis was diagnosed if hepatic steatosis index (HSI) >36, while fibrosis by using the FIB-4 score. As surrogate estimate of insulin sensitivity we considered the insulin sensitivity index (ISI). Free androgen index (FAI) was calculated as estimate of biochemical hyperandrogenism.

Results: In the entire population, steatosis was observed in 68.8% and 33.3% ($p<0.001$) of patients and controls, respectively. In PCOS patients, steatosis was independently linked to waist circumference (OR 1.04; $p=0.006$) and ISI Matsuda (OR 0.69; $p=0.004$), not to FAI (OR 1.10; $p=0.14$). Notably, ISI Matsuda was confirmed as independently associated with steatosis in both obese (OR 0.42; $P<0.001$) and nonobese (OR 0.69; $P=0.009$) PCOS patients, while FAI (OR 1.45; $p=0.004$) resulted an independent risk factor only in nonobese PCOS. Similarly, higher FIB-4 was independently associated with higher FAI ($p=0.02$) in nonobese and with lower ISI Matsuda ($p=0.04$) in obese patients.

Conclusions: PCOS is an independent risk factor for steatosis. IR and hyperandrogenism, this last especially in nonobese patients, are the key players of liver damage in PCOS.

PP108 - ACUTE EFFECT OF ESTROGENS TRIPTORELIN-INDUCED ON HEART ECG PARAMETERS IN PATIENTS WITH POLYCYSTIC OVARY SYNDROME (PCOS)

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Background: Sex hormones (SH) influence cardiac rhythm (CR) controlling cardiac ion channels and the autonomic nervous system. The effects of estradiol (E2) on the cardiac cycle are not yet to be understood: E2 seems to be the main hormone responsible of QTc interval prolongation and vagal stimulation. Conversely. progesterone and testosterone determine shortening of QTc interval and sympathetic responses. **Aim**: to assess the effect of SH on the CR in a group of young women with menstrual cycle disorders, affected or not by PCOS, before and after a GnRH-agonist (triptorelin) stimulatory test (TRI) that acutely increases ovarian oestrogen concentrations up to 10 times baseline values. **Materials and Methods**: we enrolled 15 young female patients (18-36 yrs) referring to our endocrine Unit. Adrenal, pituitary and thyroid diseases were excluded, none took any drugs. CR was analysed using 24h-ECG Holter at early follicular phase (1-7 days) before and after TRI and luteal phase (18-25 days) to evaluate heart rate (HR), HR variability (HRV), PR, QRS complex, QTc, extrasystols and pauses. Eleven healthy female (CON) were tested by baseline biochemical parameters and two ECG Holter recordings during follicular and luteal phases. Data were analysed using t test (statistically significant when $p<0,05$). **Results:** five patients were PCOS (PCOS group) and the other 10 had only androgen excess (NoPCOS group). All ECG data were inside the normal range. In luteal phase patients had higher HR when compared to that of follicular phase, with reduced HRV in luteal phase (p:0,005). During TRI we registered a decrease of HR (p:0,006) and an increase of HRV (p:0,04). A prolongation of QTc interval after TRI (p:0,001) (maximal peak of E2) was recorded. In PCOS we observed higher HR compared to NoPCOS, markedly in the luteal phase (p:0,02), and the decrease in HR was reduced in PCOS during TRI. PCOSs furtherly displayed longer QTc intervals in all three recordings compared to NoPCOSs. No variation between follicular and luteal phase was reported in CONs. **Conclusions**: Any pathological variations of CR was observed. HR was higher in luteal phase vs follicular phase in all patients. PCOS showed HR higher than NoPCOS suggesting a higher sympathetic tone in PCOS. Plasma E2 levels Triptarelin-induced were able to influence cardiac parameters causing HR decrease, HRV increase and finally a QTc prolongation suggesting, for the first time in human, a rapid modulatory effect of gonadal steroid on these ECG parameters. In our patients, high E2 levels play a more important modulatory role on cardiac rhythm than androgens. Finally, at basal level, androgens and probably insulin state, but no oestrogens, are involved in an increased sympathetic tone in PCOS when compared to NoPCOS patients.