without PCOS, factors which are associated with decreased breastfeeding (BF). Thus, our objective was to evaluate if women with PCOS were less likely to initiate BF.
Design: Cross-sectional analysis of participants in the PRAMS (Pregnancy Risk Assessment Monitoring System) dataset, a national questionnaire from the Centers for Disease Control (CDC) sent to postpartum mothers 2–9 months after delivery. PCOS status and BF were by self-report. Logistic regression was used to assess odds of ever BF. Length of BF was assessed using Cox proportional hazards with right censoring for women who were still BF at the time of follow-up. PRAMS complex survey design was accounted for.
Results: PCOS status was available for 14 states. Median response time was 3.7 months postpartum. Data from 16,036 participants were included which represents 855,302 women due to sample weights. 6.6% of women reported having PCOS and 83.8% reported ever BF. Compared to women with a normal BMI, women who were overweight or obese had decreased odds of BF (OR: 0.7, 95% CI: 0.6–0.9, P=0.01; OR: 0.6, 95% CI: 0.5–0.7, P<0.001 respectively); however, PCOS was not associated with BF (OR: 1.1, 95% CI: 0.9–1.3, P=0.6). In multivariate analysis, women with PCOS still were at no decreased odds of BF after adjusting for age, BMI, race, ethnicity, infertility treatment, and delivery factors (OR_{adj}:1.1; 95% CI: 0.8–1.4; P=0.6). Variables associated with decreased odds of BF included: overweight/obesity, age ≤ 19 yrs (vs. 25–29), Black race, smoking, undesired pregnancy intent, gestational age ≤27 wks, and prior live birth. Variables associated with increased BF included: age 30–39 yrs, hospital stay 1–2 days (vs. 3–5), Hispanic ethnicity, and ≥ 3 life stressors. In multivariable Cox models, women with PCOS did not have a shorter length of BF (HR_{adj}: 0.9, 95% CI: 0.8–1.1, P=0.3).
Conclusion: Given the rise of the national rates of obesity and clear maternal and neonatal benefits to breastfeeding, understanding the predictors of BF success is paramount. In this national survey, women with PCOS were at no decreased odds of BF, despite confirming the association between overweight/obesity and decreased BF. However, our data still supports the clinical relevance of carefully targeting women with PCOS for BF education due to the association of PCOS with increased BMI. Additional prospective studies are needed to fully understand the association between PCOS and BF.

Neuroendocrinology and Pituitary

PITUITARY AND NEUROENDOCRINE CLINICAL TRIALS AND STUDIES

Dynamic Interactions Between Luteinizing Hormone and Testosterone in Healthy Community-Dwelling Men: Impact by Age and Body Composition.

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Context. Aging is associated with diminished testosterone (Te) secretion, which could be attributed to Leydig cell dysfunction, decreased pituitary stimulation and altered Te feedback. **Objective.** The goal was to quantify all three regulatory nodes of the GnRH-LH-Leydig cell- axis in the same cohort of healthy men, by measuring (1) indirectly the strength of the endogenous GnRH signal on the gonadotrope, (2) the strength of Te feedback on LH by ketoconazole (KTCZ), and (3) the effect of LH infusions on Te secretion, in relation to age and body composition.
Design. This was a placebo-controlled, blinded, prospectively randomized cross-over study in 40 men, age 19–73 yr, BMI 20–34.3 kg/m^2. A submaximal dose of ganirelix (GnRH antagonist) was used to assess outflow of GnRH, by calculating the difference between LH output during the control and ganirelix arm. Ketoconazole (steroidogenic inhibitor) was used to estimate feedback, by the difference in LH output during ketoconazole and control arm. High-dose ganirelix and repeated 6-min LH (18.75 IU) infusions were used to measure testicular responsivity. Blood sampling was at 10-min intervals. The 4 sessions were concluded with, a single submaximally GnRH stimulus to assess the responsiveness of the gonadotrope during ganirelix inhibition.
Setting. The study was performed in a Clinical Translational Research Unit.
Interventions. In 3 of the 4 experiments subjects underwent 5 h of blood sampling at 10-min intervals, starting at 0800 h. At 1100 h GnRH was injected and sampling was continued for another 2 h. Admission was at 1700 h the day before. At 2000 h they received KTCZ, dexamethasone or ganirelix and/or placebo. KTCZ and dexamethasone (or placebo) were administered again at 0700 when the IV catheter was placed. High-dose ganirelix was used to test the testicular responsiveness, and 7 LH pulses (90 min intervals) were given., with blood sampling from 1500 till 1300 h next day.
Outcome measures. Mean concentrations of LH and (bio)Te, deconvolution analysis, endogenous dose-response LH-bioTe relation, and approximate entropy. Abdominal visceral fat (AVF) was calculated from single slice CT.
Results. There were age-, but not body composition-related decreases in estimated endogenous GnRH secretion, Te's feedback strength on LH, and Leydig cell responsivity to LH, accompanied by changes in approximate entropy. Bioavailable Te levels were negatively related to both age and AVF, without interaction between these variables. The LH response to a submaximal dose of GnRH was independent of age and AVF.
Conclusion. Advancing age is associated with 1) attenuated bioavailable Te secretion caused by diminished GnRH outflow and not by decreased GnRH responsivity of the gonadotrope, 2) diminished testicular responsivity to infused LH pulses, and 3) partial compensation by diminished Te feedback on central gonadotropic regulation.

Cardiovascular Endocrinology

FROM BEDSIDE TO BENCH AND BACK AGAIN: LIPID METABOLISM & VASCULAR DISEASE

Leptin Decreases De Novo Lipogenesis in Lipodystrophic Patients

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