general population is predictive of perimenopausal symptoms and menopause.

DESIGN: CARDIA is a population-based cohort study.

MATERIALS AND METHODS: Black and white individuals from 4 sites (Birmingham, AL; Oakland, CA; Minneapolis, MN; Chicago, IL) were recruited at ages 18-30 and followed for 20 years. At Year 16 (ages 34-46), as part of an ancillary study (the CARDIA Women's Study), a subset of women underwent transvaginal ultrasonography (TVUS) with total follicle counts performed (n=705). Exclusion criteria: ovary surgery (n=70); hysterectomy (n=126); OCP use (n=6) or only 1 ovary at TVUS (n=106). Ultrasound: ARDMS certified sonographers performed TVUS. Ovaries were measured in 3 planes and all follicles were counted. AFC and diameters of the 3 largest follicles were recorded. For this study, the smaller of the two ovaries was assessed to minimize the effect of a potential dominant follicle. If the smaller ovary contained a follicle >10mm the subject was excluded (n=117) leaving 456 subjects for analysis. Analyses: In age and race-adjusted linear and logistic regression models, we used AFC (Year 16) to predict FSH level (Year 16), and self-reported perimenopausal symptoms and menopause (Year 20).

RESULTS: Age was associated with current FSH level and self-reported irregular menses, hot flashes, and menopause 4 years later (all p's<0.01) but race was not. After adjusting for age and race, AFC was negatively associated with current FSH level (p=0.02), self-reported irregular menses (p<0.01) and self-reported menopause 4 years later (p=0.04), but not hot flashes (p=NS).

CONCLUSION: AFC measured in population-based women in their 30-40s is prospectively associated with irregular menstrual cycles and menopause. AFC is a potential predictor of ovarian reserve in women in the general population.

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O-153 Tuesday, October 26, 2010 05:45 PM

URINARY MARKERS OF OVARIAN AGING AND PREDICTING NATURAL FERTILITY. A. Z. Steiner, A. Herring, J. Kesner, J. W. Meadows, S. Hoberman, D. D. Baird. Obstetrics and Gynecology, University of North Carolina, Chapel Hill, NC; Biostatistics, University of North Carolina, Chapel Hill, NC; National Institute for Occupational Safety & Health, Cincinnati, OH; Epidemiology Branch, NIEHS/NIH, Research Triangle Park, NC.

OBJECTIVE: To generate estimates of the association between fecundability (probability of conceiving in a menstrual cycle) and urinary markers of ovarian aging, which are used in commercial fertility tests.

DESIGN: Prospective time-to-pregnancy study.

MATERIALS AND METHODS: Women, 30-44 years old, with no history of infertility, who had been trying to conceive for less than 3 months, provided early follicular phase serum and urine (N=99). They were followed until pregnancy or 6 months. While trying to conceive, women conducted standardized pregnancy testing and kept a diary to record bleeding and intercourse. Urine was analyzed for follicle stimulating hormone (FSH) and estrone 3-glucuronide (E1G); levels were creatinine-corrected. Cox models were used to calculate fecundability ratios. To adjust for patterns of intercourse, diary data were used to calculate day-specific probabilities of conception.

RESULTS: Serum and urinary FSH were highly correlated (r=0.85, p<0.01) as were serum estradiol and urinary E1G (r=0.78, p<0.01). Urinary FSH and E1G were not strongly associated with fecundability.

	Fecundability Model*		Day-Specific Probabilities Model*	
Urinary Marker	Unadjusted	Age-Adjusted	Unadjusted	Age-Adjusted
FSH>10 mIU/mg cr	0.99 (0.56, 1.74)	1.06 (0.58, 1.88)	0.74 (0.35, 1.32)	0.75 (0.35, 1.36)
Continuous ln(FSH)€	0.88 (0.60-1.29)	0.93 (0.62, 1.39)	n/a	n/a
E1G≥13.5 ng/mg cr¶	1.00 (0.53, 1.90)	1.01 (0.53, 1.94)	0.61 (0.27, 1.15)	0.62 (0.27, 1.16)
Continuous ln(E1G)€	1.01 (0.74, 1.39)	1.06 (0.75, 1.48)	n/a	n/a

* Odds ratio (95% Confidence Limits); value <1 implies reduced fecundability ¶ Upper quartile of E1G € Estimate for increase from 25th to 75th percentile.

CONCLUSION: Serum and urinary measures of ovarian aging are highly correlated; however, urinary creatinine-corrected early follicular phase FSH and E1G are not strongly associated with natural fertility.

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PEDIATRIC AND ADOLESCENT GYNECOLOGY SPECIAL INTEREST GROUP

O-154 Tuesday, October 26, 2010 04:15 PM

PARATUBAL CYSTS CORRELATE CLINCALLY WITH HYPERANDROGENISM AND PCOS. J. L. Bercaw, S. N. Mediwala, S. M. Xiomara, R. L. Young, M. Marcelli, J. E. Dietrich. Obstetrics and Gynecology, Baylor College of Medicine, Houston, TX; Medicine, Baylor College of Medicine, Houston, TX.

OBJECTIVE: Paratubal cysts (PTC), lack response to hormones, ultimately requiring surgery. A previous association was noted between PTCs and hyperandrogenism (HA). This study further explores the relationship.

DESIGN: Prospective pilot study examining PCOS features, labs and androgen receptor (AR) presence in PTCs between 2008-2009.

MATERIALS AND METHODS: Patients presented for operative removal of PTCs. Hormonal status (PRL, T, DHEAS, 17OHP, TSH, FSH, LH and MIS), PCOS features and ARs were assessed. mRNA was extracted from homogenized PTCs and reverse transcription-qPCR (RT-qPCR) was carried out to assess for wild type (wt) AR and the AR3 isoform. Results were quantified relative to a control prostate cancer cell line, 22RV1. Data analysis, STATA 9.2.

RESULTS: Ten patients met criteria, undergoing surgery for acute pain/suspected torsion (40%) or cyst persistence (60%). Mean age, 14.6 ± 2.2 years. No patients had diagnoses of PCOS, adrenal gland problems, thyroid disease or diabetes mellitus, though 20% were preterm at birth. Mean adrenarche, thelarche and menarche were 10.1 ± 1.0, 9.8 ± 1.0 and 10.7 ± 1.4 years respectively. Only 40% reported irregular menses, however, 80% had excessive body hair and 40% acne. Obesity was noted in 60%, mean BMI of 32.3 ± 7.3. Ferriman-Gallwey scores (FGS) were >8 in 80%. Pathology confirmed benign PTC in 9 cases. One case determined to be a subset of PTC, paraovarian cyst. PTC size μ=13.8 ± 5.6 cm. PTC range 7-22cm. Hormones were normal, except elevated PRL (μ=61.4 ± 43.4ng/ml). LH:FSH ratios >1:1 in 70%. FGS and cyst size (CS) correlated highly, Pearson correlation coefficient (PCC) of 0.76 (p=0.028). PRL demonstrated modest correlation with FGS, PCC of 0.39 (p <0.05). Of 10 specimens collected, 4 specimens were studied for AR mRNA with all 4 showing increased wtAR mRNA.

CONCLUSION: Our pilot study demonstrates an association between CS, FGS and PCOS. Preliminary data show that PTC specimens have significant mRNA AR presence.

O-155 Tuesday, October 26, 2010 04:30 PM

THE CLINICAL PRESENTATION OF ADNEXAL TORSION IN THE PEDIATRIC AND ADOLESCENT POPULATION. B. V. Rossi, E. J. D. Henderson, D. Zurakowski, M. R. Laufer. Department of Obstetrics and Gynecology, Brigham and Women's Hospital, Boston, MA; Department of Surgery, Children's Hospital of Boston, Boston, MA.

OBJECTIVE: To determine the history, clinical presentation, physical and laboratory findings of ovarian and/or tubal torsion in the pediatric and adolescent population.

DESIGN: Descriptive study.

MATERIALS AND METHODS: We performed a retrospective medical record review at a large pediatric hospital. Subjects included children and adolescents from 1996-2008 with surgically confirmed ovarian and/or tubal torsion. The recorded presenting characteristics were analyzed. Statistical analysis (mean, mode, and frequencies) were calculated.

RESULTS: We included 83 patients with surgically confirmed ovarian and/or tubal torsion. The mean age was 12 ± 3.9 years (range 3-21 years).

There was a higher rate of right-sided ovarian and/or tubal torsion (64%) compared to left-sided (36%). Nine percent had tubal torsion, 31% had ovarian torsion, and 59% had tubo-ovarian torsion.

The most common reported duration of pain was 24 hours (median = 72 hours, range 0-468 hours). The majority of participants described pain as having a sudden onset (91%) and being severe (69%). More subjects