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Analysis of reproductive endocrinology & infertility CREOG subject scores: A multi-institution study. M. Payson, A. Armstrong, P. Nielsen, R. Robinson, J. Ernest, R. Alvero. Walter Reed Army Medical Center, Washington, DC; National Institute of Health, Washington, DC; Madigan Army Medical Center, Tacoma, WA; San Antonio Uniformed Health Education Consortium, San Antonio, TX; Wake Forest University, Winston-Salem, NC; University of Colorado Health Sciences Center, Aurora, CO.

OBJECTIVE: To determine if poor performance on the REI subject exam can be prospectively predicted by examining the relationship between REI subject scores, USMLE scores, and other subject scores.

DESIGN: Retrospective analysis.

MATERIALS AND METHODS: The USMLE scores and postgraduate year 1−4 CREOG scores of 34 residents at 6 accredited residency programs were reviewed. The associations between scores were examined by Spearman rank correlation in a pooled analysis.

RESULTS: REI subject scores were significantly correlated to USMLE exam scores ($p<0.0001$) and this relationship was strongest in the PG3 and PG4 years. REI subject scores were also significantly correlated to subject scores in the other areas of gynecology, obstetrics, and gyn oncology as well to overall performance on the examination ($p<0.0001$). There was no significant difference between institutions in performance.

CONCLUSION: CREOG scores provide objective validated information about fund of knowledge in subspecialty areas. With the strong correlation between USMLE scores and CREOG scores, USMLE scores can be used to prospectively identify residents who may benefit from additional mentorship and remediation early in their training. In this era of work hours restrictions, prospective mentoring can most efficiently utilize faculty and residents' most precious resource: time.

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Family size in the Polycystic Ovary Syndrome (PCOS). M. Pall, K. Stephens, R. Azziz. Cedars-Sinai Medical Center, Los Angeles, CA; University of Alabama, Birmingham, Birmingham, AL; Cedars-Sinai Medical Center/UCLA, Los Angeles, CA.

OBJECTIVE: PCOS is a familial disorder inherited as a complex genetic trait. Because PCOS affects reproductive function we have hypothesized that the number of siblings available would be less (i.e., smaller nuclear family size) in the families of PCOS patients than in similar non-affected women. We undertook the following study to test this hypothesis.

DESIGN: A prospective cohort analysis.

MATERIALS AND METHODS: The study included 182 patients with PCOS and 61 healthy eumenorrheic non-hirsute control women residing in the same geographic area. PCOS was defined per the recommendations of a 1990 NIH-sponsored conference, including: (i) ovulatory dysfunction, defined as either oligomenorrhea (cycles > 35 day intervals), or a day 22–24 progesterone level <4 ng/mL if cycles were more frequent; (ii) hirsutism and/or elevated total or free T, or DHEAS levels; and (iii) exclusion of related disorders (e.g., thyroid dysfunction, hyperprolactinemia, and non-classic adrenal hyperplasia). Number and type of siblings was ascertained in person or by telephone. Only siblings with the same mother (full sibs) were included.

RESULTS: In the control group, probands had a mean age of 42.5±12.1 yrs, and 20% were Black with the remainder being White. In controls, 35/61 (57%) had at least one sister and 46/61 (75%) one brother, while 5/60 (8%) had no siblings at all. In the PCOS group, mean proband age was 36.4±8.2 yrs., and 10% were Black with the remainder being White. Overall, 114/182 (62%) had at least one sister and 113/182 (62%) one brother, and 16/182 (9%) had no siblings. The mean number of siblings, particularly brothers, was less for PCOS patients than controls (Table).

CONCLUSION: PCOS is a common endocrine disorder affecting reproductive function. Our data is consistent with the concept that families who are at risk for developing PCOS are less fertile, and consequently have lesser number of siblings. This would significantly limit our ability to recruit sufficient number of first-degree relatives for adequately powered genetic studies of PCOS. Furthermore, this data supports the hypothesis that the mothers of PCOS patients also are relatively affected by the disorder, resulting in a reduced number of children.

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Table. Family Size for PCOS and Control Women

	PCOS (n=182)	Controls (n=61)	P value
Total # siblings	2.04±1.54	2.5±2.23	<0.07
# Female siblings	1.08±1.16	1.18±1.54	NS
# Male siblings	0.96±0.92	1.38±1.23	<0.05

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Flexible dosing of recombinant human follitropin alfa (r-hFSH) optimizes pregnancy rates for profoundly luteinizing hormone (LH)-deficient hypogonadotropic hypogonadal patients treated with recombinant human lutropin alfa (r-hLH). L. O'Dea, F. O'Brien, G. Hemsey, R. C. Dunn, R. Kaufmann, T. Vaughn. Serono, Inc., Rockland, MA; Obstetrical and Gynecological Associates, PA, Houston, TX; Southeastern Fertility Center, PA, Mt. Pleasant, SC; Texas Fertility Center, Austin, TX.

OBJECTIVE: Efficacy and safety of r-hLH for concomitant use with r-hFSH for stimulation of follicular development in women with hypogonadotropic hypogonadism and profound LH deficiency (LH<1.2 IU/L) have been investigated in a dose-finding study (Study 6253) and a randomized, double-blind, placebo-controlled trial (Study 21008). To assess the efficacy and safety of r-hLH for this indication in a more usual individualized stimulation program, this study was conducted with specific emphasis on achievement of pregnancy.

DESIGN: Open-label, multicenter, international, extension study.

MATERIALS AND METHODS: 31 premenopausal, LH-deficient (LH <1.2 IU/L) anovulatory women, aged 18 to 39, desiring pregnancy, who had completed Study 21008. Patients received a fixed dose of r-hLH 75 IU SC and a flexible dose of r-hFSH 75–225 IU SC based on individual response, for up to 3 cycles. Recombinant-hLH and r-hFSH could be admixed and co-administered. A single IM injection of 10,000 units of hCG was given when at least 1 follicle was ≥17 mm without evidence of over-response. Luteal support was allowed after a mid-luteal P_4 determination. IUI was permitted. The primary efficacy endpoint was follicular development (FD), defined as a composite of a dominant follicle and peak serum estradiol followed by mid-luteal rise in serum progesterone. Pregnancy was the major secondary endpoint. The study was IRB approved and patients provided written informed consent.

RESULTS: 31 patients in 23 centers (18 USA, 3 Australia, 1 Canada, 1 Israel) participated in 54 treatment cycles; 31 patients in Cycle 1, 15 in Cycle 2, and 8 in Cycle 3. FD was achieved in 39 (72.2%) of these cycles. 21 of the 31 patients (67.7%) achieved FD in Cycle 1 and a cumulative 3-cycle FD rate of 87.1% (27/31). Of 27 patients who received hCG, 20 (74.1%) conceived, and 16 (51.6%) achieved clinical pregnancy resulting in 14 live births: 8 singleton, 5 twin and 1 triplet. Pregnancy outcome was not available for 2 patients. No congenital abnormality or neonatal death was reported. Adverse events were experienced by 15 (48.4%) of the 31 patients, mostly mild or moderate in nature. One patient was hospitalized for moderate OHSS. HCG was withheld in 5 of 54 (9.3%) cycles for risk of OHSS (3 follicles ≥15 mm or E_2 >1100 pg/mL), compared to 6 of 26 (23.1%) cycles with fixed FSH dosing in Study 21008. Of 11 placebo patients entering this study from Study 21008, 7 (63.6%) achieved FD and 4 (36%) achieved pregnancy in Cycle 1 when treated with r-hFSH and r-hLH, compared to 1 (9.1%) and 0, respectively, in Study 21008.

CONCLUSION: Flexible individualized dosing of r-hFSH with r-hLH 75 IU provides good patient response rates, reduces cycle cancellation, and provides very satisfactory clinical pregnancy rates not obtained with fixed dose regimens. Recombinant human LH and FSH can be safely co-administered.

Supported by: Serono, Inc.

REPRODUCTIVE ENDOCRINOLOGY: RESEARCH

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Plasma adiponectin and insulin resistance in women with polycystic ovary syndrome. M. S. Ardawi, A. A. Rouzi. King Abdulaziz University Hospital, Jeddah, Saudi Arabia.

OBJECTIVE: To determine plasma adiponectin concentration in women with and without polycystic ovary syndrome (PCOS) and to assess possible