Confidence Interval (C.I.) of 1.13 to 1.31 and a range from 0.78 to 1.96. Follicular fluid SOD activity detected from the PCOS patients was 0.89 ± 0.10 U/mg protein, with a 95% C.I. of 0.84 to 0.94 and ranging from 0.72 to 1.06, and it was statistically significantly lower than in the control levels; Student t-test: $p<0.0001$; (95% C.I.: 0.26 to 0.47).

Conclusions: These preliminary data indicates that: (i) SOD activity is present in the ovarian follicular fluid of normal and PCOS patients and (ii) the SOD activity in follicular fluid from PCOS infertile women is significantly lower than that found in the control group of women, suggesting that SOD might have a role in the pathophysiology of PCOS. Further studies should address this question.

P-504

Leptin Receptor Variant in Women With PCOS. [1]C. T. Erel, [3]N. Cine, [4]K. Elter, [1]S. Kaleli, [1]M. L. Senturk, [2]E. Tasan. [1]Department of Obstetrics and Gynecology, [2]Department of Internal Medicine, Cerrahpasa School of Medicine, [3]Experimental Medical Research Centre, Istanbul School of Medicine, Istanbul University, [4]Department of Obstetrics and Gynecology, Gulhane Military Medical Academy, Haydarpasa Training Hospital, Istanbul, Turkey.

Objective: Leptin is secreted from adipose tissue and its role needs to be elucidated in women with polycystic ovary syndrome (PCOS). Leptin acts via its receptor in the hypothalamus. Recently single strand conformational polymorphism (SSCP) scanning of the long isoform of the leptin receptor has been reported. In this study, we tested the hypothesis that PCOS in women may be caused by the leptin receptor variant as a result of genetic mutation in the hypothalamus.

Design: Prospective, controlled study.

Materials and Methods: 91 women were included into this study. 53 of them were PCOS and 38 were normal cycling women. PCOS were determined by clinical, ultrasonographic and hormonal findings. After DNA isolation, DNA segments were PCR amplified. Amino acid variant located in coding exon 4 (Gln223Arg) was detected by adding Msp I restriction enzyme to this PCR amplified product and analyzed on a 3% agarose gel. Mutations on codon 223 of the long isoform of the leptin receptor frequency were compared between the women with PCOS and normal women by Chi square test.

Results: 13 of 53 women with PCOS were homozygote variant, 24 heterozygote and 16 homozygote normal for the long isoform of the leptin receptor. On the other hand, we found 6 homozygote variant, 21 heterozygote, and 11 homozygote normal in normal cycling women. When the codon 223 mutation frequency was compared between women with PCOS and normal cycling women, we could not find any difference ($p=0.531$).

Conclusion: We believe, it is unlikely that a mutation on codon 223 of the long isoform of the leptin receptor is the cause of PCOS in women.

REPRODUCTIVE IMMUNOLOGY

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P-505

The Adverse Effect of Controlled Ovarian Hyperstimulation (COH) on Subsequent Conception May Be Associated With the Detection of a Progesterone Induced Immunomodulatory Protein Shortly After Embryo Transfer (ET). [1]J. H. Check, [1]P. Nazari, [2]J. Szekeres-Bartho, [1]J. K. Choe, [1]G. Lee, [1]M. Duroseau. [1]UMDNJ, Robert Wood Johnson Medical School at Camden, Cooper, Division Reproductive Endo. & Infertility, Camden, NJ, [2]Department of Microbiology, University Medical School of PECS, PECS, Hungary.

Objectives: There are data suggesting that COH may have an adverse effect on conception. The detection of a 34 KD immunomodulatory protein known as progesterone induced blocking factor (PIBF) in the late luteal phase has been positively associated with conception. The objective of the study was to determine if the use of COH is associated with a different effect on PIBF expression not only in the late luteal phase or shortly thereafter but also at mid-luteal phase.

Design: Prospective comparative study of in vitro fertilization-ET (IVF-ET) cycles vs frozen ET cycles.

Materials and Methods: PIBF was measured using an immunocytochemistry technique with a PIBF-specific polyclonal antibody. A blood sample was considered positive if there were more than 1% of the lymphocytes tested expressing PIBF. The earlier and later blood samples were obtained 3–6 days and 9–13 days post-transfer, respectively.

Results: There were 80 COH cycles and 77 frozen ETs evaluated where PIBF was measured at the later time period. For COH cycles PIBF was detected in only 3/42 (7.1%) patients without clinical pregnancies and was found in 10/38 (26.3%) pregnant patients ($p=.020$). For frozen ET cycles, PIBF was detected in only 4/34 (11.8%) non-pregnant patients compared to 10/33 (30.3%) pregnant patients ($p=.05$). There were 65 COH cycles and 58 frozen ET cycles where PIBF was measured at the earlier time period. For COH cycles PIBF was detected in 14/49 (28.6%) patients not achieving a clinical pregnancy and was found in only 1/16 (6.3%) pregnant patients ($p=.066$). For frozen ET cycles PIBF was detected in 2/34 (5.9%) non-pregnant patients and in 3/24 (12.5%) pregnant patients ($p=.376$). A greater percentage of COH cycles compared to frozen ET cycles that fail to establish pregnancies are associated with the early expression of PIBF.

Conclusions: These data corroborate a previous study which found that PIBF expression in the late luteal phase is associated with conception outcome. This study demonstrates that the association is similar following ET whether COH is used or not. PIBF expression in the mid-luteal phase or shortly thereafter occurred more frequently in non-conception cycles than conception cycles when COH was used. This was not found in frozen ET cycles at this time interval. These results suggest that possibly the adverse effect of COH on conception failure may not be so much related to implantation failure but possibly involves premature invasion of the trophoblast when the uterine environment is not appropriate for further survival of the embryo.

P-506

Antiphospholipid Syndrome Associated With Recurrent Pregnancy Loss: Treatment With Enoxaparin and Low Dose Aspirin. [1]L. S. Noble, [3]W. H. Kutteh, [2]J. B. Herrada. [1]Department of OB-GYN Texas Tech University Medical Center and [2]US Oncology, El Paso, TX, and [3]Division of Reproductive Endocrinology University of Tennessee, Memphis, TN.

Objective: Antiphospholipid antibody syndrome associated with recurrent pregnancy loss (RPL) has been treated with a combination of unfractionated heparin and low dose aspirin with an 80% viable infant delivery (*Am J Obstet Gynecol* 1996;174:1584–9). The objective of this study was to evaluate the efficacy and side-effects of treatment with low molecular weight heparin (enoxaparin) and low-dose aspirin in patients with positive antiphospholipid antibodies and RPL.

Design: A prospective, single-center observational pilot study.

Materials and Methods: 14 patients (pts) were enrolled. Mean chronological age was 32.9 years. All pts had 2 or more first trimester losses and had a complete evaluation for RPL including anatomical, hormonal, infectious, chromosomal and immunological. A standard ELISA was employed to detect the presence of IgG, M and A antibodies in serum against the phospholipids cardiolipin, glycerol, inositol, serine and ethanolamine. All pts were treated with 81 mg aspirin (ASA) orally and enoxaparin 40 mg subcutaneously daily as soon as the serum pregnancy test became positive. Pts were monitored at close intervals for the development of thrombocytopenia, bleeding episodes, and intrauterine growth restriction (IUGR). Amount of bleeding at delivery and incidence of epidural hematomas were also recorded.

Results: From the 14 assessable pts, 12 (86%) delivered a viable infant; 2 pts (14%) miscarried, and chromosome analysis of these 2 fetuses revealed a normal karyotype, and a complex chromosomal anomaly, respectively.

Obstetrical outcome (n=14): Preterm/IUGR 1 (7%); Term 11 (78%); Abortion 2 (14%)
Bleeding epidoses (n=14): Major bleeding: 0; Minor (epistaxis) 1 (7%)
Mode of delivery (n=12): Cesarean section (C/S): 2(14%); Vaginal: 10 (71%)
Average blood loss at delivery: C/S: 975 cc; Vaginal:; 550 cc
Epidural Hematomas: 0; Deep Venous Thrombosis: 0; Thrombodytopenia: 0

Conclusions: The use of low-dose aspirin in combination with enoxaparin during pregnancy for the prevention of RPL in women with antiphospholipid syndrome appears to be safe. When compared with historical controls it seems to be at least as effective as unfractionated heparin and low dose aspirin.