DESIGN: Prospective, open label, non-comparative.

MATERIALS AND METHODS: Ovarian stimulation was performed according to the practices of each center. Patients were asked to complete a questionnaire to evaluate the acceptability of the GONAL-f® prefilled pen. The primary endpoint of this study was the percentage of patients who self-administered GONAL-f® prefilled pen. Safety and efficacy parameters were also recorded.

RESULTS: Of the 215 women included in the study, 204 received at least one dose of GONAL-f® pen (intent to treat [ITT] population), 85 patients in the OI group and 119 patients in the IVF/ICSI group. Mean patient age was 30.0 ± 3.3 years and body mass index was 22.3 ± 3.3 kg/m$^2$. Mean FSH treatment duration was respectively 9.3 ± 4.1 (OI) and 10.6 ± 1.7 days (IVF/ICSI). Median starting dose and total dose of GONAL-f® were respectively 75 IU (OI) and 150 IU (IVF/ICSI) and 782 ± 472 IU (OI) and 2059 ± 870 IU (IVF/ICSI). Of the 204 patients in the ITT population, 175 (86%) self-administered the GONAL-f® prefilled pen (91% in the OI group and 82% in the IVF/ICSI group). The main reasons for self-administration were autonomy (81%), less constraints (66%), and more involvement in the treatment (30%). Of these 175 patients, 152 (88%) found GONAL-f® prefilled pen "extremely or very easy to use". The time needed to prepare and to inject the dose with GONAL-f® prefilled pen was less than 3 minutes for 67% of patients and less than 5 min for 97% of patients. Of all the patients who self-administered FSH, 156 (91%) expressed confidence in having self-injected accurately the correct dose (from "fairly" to "extremely"). For 92% (154) of the patients, the injection was "a little" or "not at all" painful. More than 96% of patients who self-administered would choose self-administration for future treatment. Additionally, half of the patients using nurses' services would prefer to switch to self-administration. Global evaluation of the GONAL-f® pen by the investigators was "satisfactory" or "very satisfactory" for 99% of the 204 patients analysed. Overall, the injections were well tolerated by patients with only 9.2% of GONAL-f® injections presenting a local site reaction.

CONCLUSION: The GONAL-f® prefilled pen was found to be well accepted, easy to use and well tolerated in the clinical setting for OI and IVF/ICSI. More than 85% of patients self-administered r-hFSH using the GONAL-f® prefilled pen and 88% of patients found GONAL-f® prefilled pen easy to use.

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**P-806**

**THE IMPORTANCE OF INSULIN LIKE GROWTH FACTOR-1 AND INSULIN LIKE GROWTH FACTOR BINDING PROTEIN-1 DURING THE TREATMENT OF POLYCYSTIC OVARY SYNDROME WITH CLOMIPHENE CITRATE.** K. Ozerkan, G. Uncu, M. Tufekci, E. S. Ozyurek. Uludag U, Bursa, Turkey.

OBJECTIVE: The aim of the present study was to define the importance of insulin like growth factor-1 (IGF-1) and insulin like growth factor binding protein-1 (IGFBP-1) during the treatment of Polycystic Ovary Syndrome (PCOS) with Clomiphene Citrate (CC) and the overall effects on the ovulation induction results.

DESIGN: Prospective descriptive study.

MATERIALS AND METHODS: Thirty menstrual cycles of CC treated PCOS patients were recruited between November 2001 and November 2002. The diagnosis was based on the clinical symptoms, the laboratory and the transvaginal ultrasonographic findings. CC was administered at a dose of 100 mg/day between the 3$^{rd}$ and the 7$^{th}$ days of the cycles. In unsuccessful cycles to CC, the dose was increased as 50 mg/day/cycle to a maximum dose of 150 mg/day on the following cycle. The plasma concentrations of IGF-1, IGFBP-1, insulin and glucose were measured at the days before and after the CC treatment.

RESULTS: CC treatment was successful in 18 (% 60) from 30 cycles. In these cycles, 6 of them were resulted in pregnancy (% 33.3). Plasma concentrations of IGF-1 decreased by 24.7% (258.20 ± 69.61; 185.26 ± 65.08 ng/ml; $p<0.005$) after 5 days of clomiphene therapy, whereas plasma concentrations of IGFBP-1 increased by 277.7% (10.11 ± 10.18; 23.76 ± 14.57 ng/ml; $p<0.001$). This gave a 64.1% reduction in the IGF-1/IGFBP-1 ratio (68.32; 12.23). In the unsuccessful cycles to CC, plasma concentrations of IGF-1 before and after treatment did not change (249.50 ± 68.12; 240.53 ± 78.94 ng/ml; $p>0.05$) like the plasma concentrations of IGFBP-1 (18.66 ± 14.15; 16.88 ± 14.96 ng/ml; $p>0.05$). Neither CC responders nor CC non responders plasma concentrations of IGF-1 and IGFBP-1 before and after the treatment did change the pregnancy results. There was no significant changes in fasting plasma concentrations of insülin and glucose/insulin ratios in any of the cycles respond or not.

CONCLUSION: In successful PCOS cycles treated by CC, it has been observed that after CC therapy, not only the plasma concentrations of IGF-1 were decreased, but also the plasma concentrations of IGFBP-1 were increased with a significant reduction in the IGF-1/IGFBP-1 ratio. The decreasing plasma concentrations of IGFBP-1 after CC treatment may help the physician to consider that this cycle would be an unsuccessful one and the patient is nonresponding to CC, favoring the following cycle to start with an another ovarian stimulation agent.

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**P-807**

**DETECTION OF OOCYTE-SPECIFIC GENE EXPRESSIONS IN OOCYTES DERIVED FROM 2-DIMENSIONAL (2D) AND 3-DIMENSIONAL (3D) FOLLICLES MATURED IN-VITRO.** H. C. Liu, Z. Y. He, Y. X. Tang, W. Wang, Z. Rosenwaks. Weill Medical Coll. of Cornell Univ., New York, NY.

OBJECTIVE: Oocyte-specific genes such as GDF9, BMP15, Oct-4 VASA play an important role during gametogenesis, folliculogenesis and early embryo development. Their transcripts and proteins stored in ooplasma immediately after ovulation could be used as markers for oocyte quality. The purpose of this study was to assess the influence of the 2D and 3D in-vitro culture on the expression of these marker genes in the matured oocytes.

DESIGN: Expressions of the studied genes in oocytes matured in 2D or 3D in-vitro culture were detected by real-time RT-PCR.

MATERIALS AND METHODS: Preantral follicles isolated from 14-day-old B6D2F1 mice ovaries were cultured in microdroplets (20uL) (2D culture group) or encapsulated with nanofiber extracellular matrix (ECM) containing 0.15% rat tail collagen type-I, 0.5% PuraMatrix peptide hydrogel and cultured in 100 uL wells (3D culture group). All follicles were stimulated in $\alpha$-MEM plus rFSH/rLH for 11days. Oocytes were ovulated by hCG/ EGF on day 11 of culture. Total RNAs of individual mature MII oocytes were isolated using TRIZON reagent. First-strand cDNA synthesis was performed with oligo-dT primer in a reverse transcription solution. Amplified cDNAs of individual oocytes were separated into 4 parts to detect the 4 studied genes. The TaqMan probes and primers for mouse GDF9, BMP15, Oct-4, VASA and $\beta$-actin were designed using the Primer Express program. Real time PCR reaction was preformed using the ABI PRISM 7700 sequence detection system and TaqMan PCR reagent. Data were normalized with the expression of $\beta$-actin (control gene). Experiments were repeated eighteen times to evaluate the degree of variation. The value of amplification was represented as cycle threshold (Ct), the time at which fluorescence intensity is greater than background fluorescence. Ct values decreased linearly with increasing target gene expression.

RESULTS: Expressions of Oct-4 ($p=0.35$) and VASA ($p=0.47$) were not significantly different in oocytes matured in the 2D or 3D culture. However, the expressions of GDF9 ($p<0.0002$) and BMP15 ($p<0.005$) were significantly higher in oocytes matured in 3D culture system.