CONCLUSION: We observed differences in T2 and T3 between preparations with or without LH-like activity. Gonadotropin used for stimulation might have an impact downstream on embryo development and implantation potential.

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MILD VS CONVENTIONAL OVARIAN STIMULATION IN INTRAUTERINE INSEMINATION. A PROSPECTIVE RANDOMIZED STUDY. E. Munoz, A. Carballo, I. Fernandez, D. Pabon, S. Portela, A. Pellicer. Reproductive Medicine, IVI Vigo, Vigo, Pontevedra, Spain; Reproductive Medicine, Instituto Valenciano de Infertilidad, Valencia University, Valencia, Spain.

OBJECTIVE: Our aim was evaluate a mild ovarian stimulation protocol starting the gonadotropin administration after natural follicular recruitment and compared with conventional ovarian stimulation as ovulation induction to intrauterine insemination.

DESIGN: A prospective randomized study of two different protocols of ovarian stimulation.

MATERIALS AND METHODS: Patients with less than three attempts of IUI, younger than 41 years old, with body mass index lower than 35 Kg/m2 and regular menstrual cycles were randomized to start 75 IU per day of HP-HMG (Menopur, Ferring, Spain) from the day 2 of menstrual period (conventional stimulation: CS) or after the leader follicle reaches 11 mm of mean diameter (mild stimulation: MS). A single intrauterine insemination was performed 36 hours after hCG administration. Ethical committee of our institution approved the present study.

RESULTS: From January 2008 to February 2011, 39 patients underwent to 54 cycles of IUI were included. No differences were found between patients of CS compared with MS in age (34.3 $\pm$ 3 vs 34.5 $\pm$ 2.6 years), levels of estradiol, FSH and progesterone on days 0 or 6 of ovarian stimulation.

The number of follicles with mean diameter between 15 to 17 mm on hCG day was similar (CS: 1.8 $\pm$ 3 follicles, MS: 1.1 $\pm$ 0.3 follicles) and also similar number of follicles of 18 mm or more diameter were found in both groups (p: 0.158). Similar male factor was documented between groups.Significant differences were found in estradiol level on day 4 of stimulation (113.4 $\pm$ 53 vs 63.8 $\pm$ 55.5 pg/mL), days of stimulation (9.83 $\pm$ 2.5 vs 5.94 $\pm$ 2.1) and amount of gonadotropins (635.37 $\pm$ 263.1 vs 396.3 $\pm$ 191) between CS compared with MS group ($P<$ 0,05). No difference was found in pregnancy rate per cycle in CS group (12,5%) compared with MS group (22.2%) (p:0.473).

CONCLUSION: Mild stimulation protocol needs fewer amounts of gonadotropins, fewer days of ovarian stimulation and it reaches similar pregnancy rate than conventional ovarian stimulation in intrauterine insemination.

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FOLLICLE STIMULATING HORMONE RECEPTOR (FSHR) GENE POLYMORPHISM IN INFERTILE WOMEN (POOR RESPONDER VS GOOD RESPONDER) UNDERGOING OVARIAN STIMULATION COMPARED TO FERTILE WOMEN. B. Sever, A. Karalok, T. Toptas, M. Simsek, O. Taskin, O. Alper. Akdeniz University, Antalya, Turkey.

OBJECTIVE: Besides point mutations, when FSHR gene polymorphisms are formed (especially codon 307 and 680) changes in response to exogen FSH hormone are observed. In this trial we investigated the association between FSHR gene polymorphusm and the outcomes of ovarian stimulation in both poor and bad responder patients with infertility compared to fertile population.

DESIGN: Prospective controlled trial in a university based infertility clinic

MATERIALS AND METHODS: One hundred and eighty-two patients under 40 yrs of age who underwent ICSI procedures were included in the study. Patients with PCO or previous history of ovarian surgery were excluded. Forty poor responders and 42 normal responders were included. Fertile population who had delivered recently (n:100) were subjected as controls. FSHR gene polymorphism Ala307thr and Ser680Asn were evaluated by PCR.

RESULTS: The demographic characteristics among the study population were similar. In control patients Ala307thr polymorphism found to be homozygot (28%), heterozygocity (51%)and normal(21%). When compared to infertile patients, poor responders had 30% homozygot, 50% heterozygot and 20% normal genotype respectively. Of normal responders, distruibution were 11.9% homozygot, 42.9% heterozygot and 45.2% normal genotype respectively. Ser680Asn distribution was similar to ALA307Thr in all 3 patient groups. In poor responders SEr680Asn polymorphism(heterozygot) was significantly higher. In the latter group the gonadotrophine dose used was significantly high.

CONCLUSION: FSHR polymorphism at position 680 may be associated with reduced ovarian response and much higher use of gonadotrophine dose. However further prospective randomized studies are needed to elucidate the mechanism underlying FSHR polymorphism.

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WHAT IS THE BEST COST-EFFECTIVE FSH DOSE FOR INTRAUTERINE INSEMINATION? G. M. Bedoschi, D. S. Zylbersztejn, R. Rosa Filho, M. B. Chehin, A. P. Cedenho, R. Fraietta. Human Reproduction Seccion, Universidade Federal de São Paulo, São Paulo, Brazil.

OBJECTIVE: The objective of this study is to verify the best cost-effective FSH dose for ovarian stimulation for intrauterine insemination (IUI). Pregnancy rates, cycle cancelation rates and in vitro fertilization conversion rates were compared among three different protocols.

DESIGN: Prospective, randomized controlled trial.

MATERIALS AND METHODS: One hundred and twenty infertile women with ovulation dysfunction or unexplained infertility were randomly assigned to three groups. All women received recombinant FSH (r-FSH) starting on day 2 of menses until the day before human chorionic gonadotropin (hCG) injection (Only patients with at least one follicle >18 mm received human chorionic gonadotropin injection). In group A, 40 patients received 75IU/day; in group B, 43 patients received 112,5IU/day; in group C, 39 patients received 150IU/day.

RESULTS: The mean age (29,1 years) was similar among the three groups. The pregnancy rate per cycle was 16% in group A, 24,1% in group B, 22,7% in group C (difference not significant). The rate of cycle cancelation was 37,5% in group A, 27,9% in group B and 21,6% in group C (difference not significant). The rate of in vitro fertilization conversion was 0% in group A, 4,7% in group B and 18,9% in group C (statistical difference was found between group C vs. other groups).

CONCLUSION: In order to obtain the best cost-effective FSH dose for ovarian stimulation for intrauterine insemination, the use of 75IU or 112,5IU of r-FSH seem reasonable as no difference was seen in terms of pregnancy rates. In vitro fertilization conversion rates were higher with the use of 150IU of r-FSH.

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GONADOTROPHIN-RELEASING HORMONE AGONIST AND ANTAGONIST: FACTORS DRIVING THE PREGANCY OUTCOMES – AN EXPLORATORY ANALYSIS. H. G. Al-Inany, A. M. Abou-Setta. Obstetrics and Gynecology, Cairo Universtiy, El-Manial, Cairo, Egypt; Alberta Research Centre for Health Evidence, University of Alberta, Edmonton, AB, Canada.

OBJECTIVE: A recent Cochrane review has demonstrated that gonadotrophin-releasing hormone agonists and antagonists have similar pregnancy outcomes, but a better safety profile for GnRH antagonists. Even so, little is known on how factors such as type of GnRH antagonist and flexibility in administration affects the pregnancy outcomes.

DESIGN: Systematic review/ meta-analysis.

MATERIALS AND METHODS: Using data from recent Cochrane review (Al-Inany et al., 2011), RCTs comparing antagonist versus agonist were grouped according to the type of GnRH used (e.g. Cetrorelix or Ganirelix) and flexibility of the protocol (e.g. fixed or flexible protocol). Indirect comparisons were performed using the Bucher method and adjusted point estimates and confidence intervals were evaluated. The primary outcome was the live-birth rate. The secondary outcomes were the ongoing pregnancy and clinical pregnancy rates.

RESULTS: Data from forty-five RCTs (n = 7511) comparing antagonist to the long agonist protocols were extracted. There was no statistically significant difference between trials using Cetrorelix-only or Ganirelix-only, nor using the flexible or fixed protocol, compared with GnRH agonists for any of the clinical outcomes. Using indirect analysis, there was no statistically