

istered to initiate ovulation when 1–2 follicles reached 18 mm or greater. Ovum retrieval was performed 34–36 hours after hCG. Insemination was performed by conventional methods or intra-cytoplasmic sperm injection. Embryos were cultured in IVC-1 (In Vitro Care, Frederick, MD) until day 3 of culture followed by G-2 (Vitrolife Inc., Englewood, CO) if the patient was scheduled for a day 5 transfer. Embryos were cultured at 6.1% CO₂ in humidified air at 37.0°C. Two to four embryos were transferred on day 3 or 5 post-insemination. Pregnancy was considered ongoing if fetal heart tones were present by at 9 weeks of gestation. Statistical analysis was performed by Chi-Square.

RESULTS: 113/145 cycles resulted in an appropriate E2 rise, 10/145 in an E2 plateau, and 16/145 in a E2 drop. Pregnancy rates were 43.2%, 60.0% and 31.3%, respectively. Implantation rates were 21.6%, 42.9%, and 27.3%, respectively. Differences were not statistically significant.

CONCLUSION: Drop or plateau in E2 following initiation of Antagon™ does not appear to adversely effect pregnancy outcome or implantation potential of the embryos compared with a rise. It suggests additional supplement of LH to the stimulation protocol may not be necessary in patients administered only recombinant FSH, however, we have not elucidated if addition of LH is beneficial to the overall pregnancy outcome in our laboratory. This paper is supported by previous findings from Shapiro et al. (Fertil. Steril., 78:O-58), indicating a drop or plateau in E2 does not adversely effect pregnancy and implantation outcomes in recombinant FSH cycles.

Supported by: None.

P-261

An open, prospective, randomized, multicenter study to compare recombinant human follicle stimulating hormone (rec-FSH; follitropin-β; Puregon® solution) with highly purified urinary FSH (uFSH, urofollitropin (highly purified), Metrodin® HP) in Chinese women undergoing in vitro fertilization (IVF). X.-N. Chen, G.-X. Lu, J.-M. Yan, Z.-J. Chen, H.-M. Xiao, G. Chen. Reproductive Medical Center, Department of Obstetrics and Gynaecology, Peking University Third Hospital, Beijing, China; Reproduction & Genetic Hospital of CITIC-XIANGYA, Xiangya, China; Shanghai JIAI Genetics & IVF Institute, Shanghai, China; Reproductive Medical Center, Shandong Provincial Hospital, Jinan, China.

OBJECTIVE: To compare the efficacy, efficiency and safety of rec-FSH (follitropin-β; Puregon® solution) and highly purified urinary FSH (Metrodin® HP) in Chinese women undergoing controlled ovarian stimulation (COS) for IVF.

DESIGN: An open, prospective, randomized, multicenter study.

MATERIALS AND METHODS: Between March 2003 and November 2003, infertile female subjects were recruited at 4 different IVF centers throughout China. A total of 228 women undergoing IVF with or without intracytoplasmic sperm injection (ICSI) were randomized in 4 centers (114 with Puregon solution, 114 with Metrodin HP). The study was approved by the ethics committees of Peking University Third Hospital. Each subject was treated with a long protocol of GnRH-agonist (Alarelin, 150µg daily, s.c.) for pituitary down-regulation.

MAIN OUTCOME MEASURES: Number of oocytes retrieved, total dose of FSH used, duration of stimulation, number of high quality embryos, biochemical pregnancy rate, the number of follicles ≥17 mm and ≥15 mm in diameter on the day of hCG administration and the incidence of ovarian hyperstimulation syndrome (OHSS). All analyses were done using SAS software. A two-sided test was used in all statistical analyses. A *P* value <0.05 was considered to be statistically significant.

RESULTS: No differences were found between two groups in number of oocytes retrieved (14.60 versus 14.35), number of high quality embryos (6.61 versus 6.41), biochemical pregnancy rate per transfer (49.50% versus 45.65%) and the number of follicles ≥17mm and ≥15mm in diameter on the day of hCG (3.88 and 6.35 versus 4.42 and 6.10). However, compared to urinary FSH, the total dose of FSH was significantly lower with recombinant FSH (2,126 versus 2,565 IU, *P*<0.00001) in a significantly shorter treatment period (9.87 versus 10.64 days, *P*<0.01). No significant differences between two groups were seen with respect to the incidence of OHSS and adverse events.

CONCLUSION: Recombinant FSH (follitropin-β; Puregon® solution) is more efficient than urinary FSH at inducing multiple follicular development with a lower overall total FSH dose and a shorter treatment duration, among Chinese women in COS for IVF.

Supported by: None.

P-262

N-acetyl cysteine improves pregnancy rate in long standing unexplained infertility: a novel mechanism of ovulation induction. M. A. Bedaiwy, A. Rezk, H. Al Inany, T. Falcone. The Cleveland Clinic Foundation, Cleveland, OH; Benha School of Medicine, Benha, Egypt; Cairo School of Medicine, Cairo, Egypt.

OBJECTIVE: Management of unexplained infertility generally is empiric. Controlled ovarian hyperstimulation (COH) and intrauterine insemination (IUI) has been proposed as an effective method of treatment. Finding a cheap, safe and effective method of COH is needed. N-acetyl-cysteine (NAC) has diverse biological effects notably; insulin sensitizing properties, antiapoptotic, antioxidant, protection against focal ischemia, inhibition of phospholipid metabolism, proinflammatory cytokine release, and protease activity. We hypothesized that these activities may have ovulation enhancing effects. The objective of this study was to evaluate the effect of NAC adjuvant therapy to CC in IUI cycles of patients with long standing unexplained infertility.

DESIGN: Case controlled study.

MATERIALS AND METHODS: Patients with unexplained infertility (n=40) referred for IUI were included. Patients in this group received NAC 1.2 gm/day with CC 100 mg/day for 5 days starting at day 3 of the cycle. The study group was compared to 2 control groups of similar diagnosis who underwent IUI. The first control group received CC 100 mg/day for 5 days starting at day 3 of the cycle (n=32) and the second control group was natural cycle IUI (n=47). All 3 groups were comparable regarding age, body mass index, and parity. Semen preparation was performed using density gradient method and IUI was performed using the method described everywhere in all patients.

RESULTS: There was no difference in age, infertility duration and BMI. Patients who received NAC+CC had significantly higher number of follicles >15 mm at the day of HCG administration as compared to the other 2 groups (Table). The *P* value was <0.0001 when compared to patients who received CC alone and <0.0001 when compared to natural cycle IUI as well. The same level of significance was maintained for follicles <12 mm and 12–15 mm. Similarly, NAC + CC group had significantly higher pregnancy rate as compared to CC group (OR = 0.87; CI = 0.29–2.62) and when compared to natural cycle IUI (OR = 6.20; CI = 1.86–20.71). No ovarian hyperstimulation was reported in any treatment cycle.

CONCLUSION: NAC is an effective, cheap and safe adjuvant to CC in long standing unexplained infertility patients undergoing IUI. It improves pregnancy rate significantly in IUI cycles. The multiple biological effects of NAC may explain its ovulation induction properties.

Supported by: None.

Variable	NAC+CC/IUI	CC/IUI	Natural cycles/IUI
No of cycles	40	32	47
Infertility duration	3.23±0.66	3.21±0.7	3.4±0.59
Follicles <12mm	2.75±0.36	0	0
Follicles 12-15mm	1.97±0.30	0	0
Follicles >15mm	1.80±0.18	1.04±0.18	1±0.2
Clinical pregnancy (%)	14/40 (35%)	7/32(21.8%)	4/47 (8.5%)

P-263

Is recombinant hCG as efficient as urinary hCG in a routine use in an IVF/ICSI program ? P. Barriere, M.-L. Langlois, S. Mirallie, M. Jean, A. Colombel. CHU Nantes, Nantes Cedex 01, France.

OBJECTIVE: To evaluate if routine introduction of recombinant hCG instead of urinary hCG in our IVF/ICSI program modified any biological or clinical parameters and results.

DESIGN: Retrospective analysis of our first 300 consecutive cycles with recombinant hCG (r-hCG) for ovulation triggering versus 300 previous consecutive cycles with urinary hCG (u-hCG). No other change in any parameter was conducted during this period.

MATERIALS AND METHODS: From June 2003 to February 2004, 600