A SINGLE PROGESTERONE VALUE ON DAY OF HCG DOES NOT PREDICT PREGNANCY AFTER IVF, REGARDLESS OF PROTOCOL OR TYPE OF RESPONSE

F. Martinez, R. Tur, R. Buxaderas, F. Mancini, I. Rodriguez, B. Coroleu, P.N. Barri
Institut Universitari Dexeus, Barcelona, Spain

We aimed to identify, in our population, a predictive P-hCG value for pregnancy in IVF cycles. Retrospective analysis of IVF cycles achieving embryo transfer, between January 2011 and June 2012, treated with long agonist or antagonist protocol, with recFSH or recFSH+HMG. Progesterone was measured by ECLIA, cobas e, (® Roche Diagnostics, Germany). Statistics: ROC analysis, Area under the curve, trend analysis, Spearman correlation coefficient.

In total, 894 IVF cycles were analyzed, 605 antagonist protocol cycles and 287 long protocol cycles. Patients age: 36.87± 4.13 years old; P-hCG= 1.02+0.56ng/ml; number of retrieved oocytes 9.18+ 5.33; number of transferred embryos 1.91±0.59; total clinical pregnancy rate 38.7%. No differences were observed in P-hCG between pregnant and not pregnant cycles, both in antagonist cycles (0.99+0.51ng/ml vs 0.95+0.40ng/ml) or long agonist cycles (1.18+0.50 ng/ml vs 1.15+0.79ng/ml). There were positive correlation between P-hCG and (p<0.001) age (r=−0.132), Estradiol (r=0.340) and number of oocytes (r=−0.315). After adjusting for these variables, P-hCG was related with the type of stimulation protocol and the type of gonadotropin: P-hCG in agonist cycles were higher than in antagonist cycles (1.16+0.72 vs 0.96+0.47 ng/ml) and in FSH cycles compared to FSH+HMG cycles (1.14+0.63 vs 0.94+0.50 ng/ml), without interaction between gonadotropin and protocol (p<.05). No P-hCG cut-off discriminating pregnancy and not-pregnancy was identified according to type of response. A single P-hCG value does not predict pregnancy. Clinical management of IVF cycles should be based upon other safety criteria. This is an observational study, and bias cannot be excluded.