

# **IMPROVEMENT OF PREGNANCY RATES IN A SURROGATE MOTHERHOOD PROGRAM AFTER ENHANCEMENT OF THE LEYDIG CELLULAR SECRETORY FUNCTION OF THE MALE PARTNER**

**Ioannis Giakoumakis, Diamantis Dafnis, Kostas Kastrinakis, Nikolaos Sofikitis.**

*Surrogacy Program, Surrogacy Program, Surrogacy Program, University of Ioannina, Ioannina, Greece.*

## **Abstract Body**

**INTRODUCTION AND OBJECTIVES:** To evaluate the role of the pharmaceutical treatment of the male partner in infertile couples participating in a surrogate motherhood program.

**PARTICIPANTS AND METHODS:** Twenty one couples with severe oligoasthenoteratozoospermia participating in a surrogate motherhood program with donor oocytes were randomly divided into two groups A and B. Men of couples of group A did not receive any pharmaceutical treatment for three months (observation period). In contrast men of couples of group B received clomiphene citrate 50 mg per day for three months (experimental period). At the end of the observation period and the experimental period, couples of groups A and B, respectively, participated in ICSI programs using donor oocytes. Generated embryos were cultured up to the blastocyst (BL) stage. Up to three blastocysts were transferred per female surrogate recipient.

**RESULTS:** At the end of the 3-month period, peripheral serum testosterone, sperm concentration, % motile spermatozoa, and the (proportion of developed BLs per fertilized oocyte) X100 was significantly larger ( $P < 0.05$ ; Chi Square test; Yates correction) in group B than in group A. In addition finally the 100X (proportion of pregnant surrogate recipients per total number of surrogate recipients) was significantly larger in group B than in group A ( $P < 0.05$ ).

**CONCLUSIONS:** Pharmaceutical treatment with clomiphene citrate in oligoasthenoteratozoospermic couples participating in a surrogate motherhood program has a beneficial effect on sperm capacity to fertilize the oocyte and induce early embryonic development with capacity for implantation up to the delivery of a healthy offspring. This is of great clinical and social importance given the fact that in several countries it is mandatory in assisted reproductive technology programs, at least one of the two parents to be a biological one.