



## **Improvement of IVF Outcomes by Acupuncture: Are egg and embryo qualities involved?**

Paul C. Magarelli, M.D., Ph.D., a Diane Cridennda, L.Ac. b, Mel Cohen, MBA a

a Reproductive Medicine & Fertility Center, Colorado Springs, CO , b East Winds Acupuncture, Colorado Springs, CO

FERTILITY AND STERILITY®, May 2005, VOL 83, SUP 2, Proceeding from the 2005 Pacific Coast Reproductive Society annual meeting in Palm Springs

**Objective:** In this study, we examine the impact of Acupuncture on the embryology characteristics of IVF patients, i.e., are there changes in the numbers of eggs generated, embryos fertilized, embryos transferred or remaining embryos for freezing in those patients receiving acupuncture therapy.

**Design:** Retrospective clinical study

**Setting:** Private infertility practice and Traditional Chinese Medicine practice

**Patients:** Two hundred eight IVF cycles were reviewed, 95 received acupuncture (Ac) and 113 were controls (C).

**Interventions:** Patients randomly chose Ac to complement their IVF treatments. Two published Ac protocols were used. Standard IVF protocols were used and done in one clinic by one physician. The MD was not aware of who received Ac in addition to their IVF. After three years the data were collected and analyzed.

**Main Outcome Measures:** Number of eggs retrieved, number of eggs fertilized normally, number of embryos implanted, number of embryos frozen, number of embryos transferred, day of transfer, number of prior IVF cycles, Day 3 FSH, Pulsatility Indices, weight, infertility diagnoses, IVF treatment protocols, pregnancy rates, SAB rates, ectopic rates, and multiple pregnancy rates.

**Results:** Number of prior IVF cycles, Day 3 FSH, Pulsatility Indices, Weight, Infertility diagnoses, IVF treatment protocols were statistically similar. Pregnancy rates for the Ac group were statistically significantly higher than the C group ( $P \leq 0.05$ ), SAB rates were lower and multiple pregnancy rates were lower ( $P < 0.06$ , not statistically significant). Ectopic pregnancy rates were statistically lower in the Ac group ( $P \leq 0.05$ ). There were no statistically significant differences between the C and Ac treated groups for the following embryology parameters: number of eggs retrieved, number of eggs fertilized normally, number of embryos implanted, number of embryos frozen, number of embryos transferred, and day of transfer.

**Conclusions:** There were no discernable statistical differences between embryology characteristics in patients treated with or without Acupuncture. These data suggests that the mechanism of action of Acupuncture on IVF outcomes may be related to affects in the host (the egg provider and the embryo recipient) rather than in direct changes to the eggs retrieved and the embryos created.