

AROMATASE INHIBITORS AMELIORATE THE SPERM ABILITY TO INDUCE OPTIMAL EARLY EMBRYONIC DEVELOPMENT AND CAPACITY FOR IMPLANTATION IN OLIGOSPERMIC MEN WITH SUBNORMAL TESTOSTERONE LEVELS IN A SURROGACY PROGRAM

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Abstract Body

OBJECTIVE

Our objective was to evaluate the effects of the administration of an aromatase inhibitor (Aic) on the ICSI outcome in oligospermic men with subnormal serum testosterone levels who have previously participated in assisted reproductive technology trials without the achievement of pregnancy. Following the administration of the Aromatase inhibitor the patients underwent oocyte donation in a surrogacy program

PARTICIPANTS AND METHODS

Oocyte donation coupled with ICSI procedures were performed with spermatozoa from 16 men (Group A) with oligospermia and subnormal serum testosterone levels. After blastocyst embryo transfer procedures no pregnancy was achieved in any of the surrogate mothers. Arimidex (1mg/day) was administered to each of the above 16 men for 4 months, a new oocyte donation and ICSI procedures were performed. The fertilization rate (FR: 100 x fertilized oocytes/injected oocytes) and the blastocyst development (BRR: 100 x generated blastocysts/fertilized oocytes) were recorded.

RESULTS

BRR was significantly larger after Arimidex administration than in the cycles prior to Arimidex administration. There were no significant differences in FR between ICSI cycles prior to Arimidex administration and ICSI after Arimidex administration. 5 pregnancies were achieved in ICSI cycles following Arimidex administration. Peripheral serum testosterone increased after Arimidex administration.

CONCLUSION

Administration of Arimidex in oligospermic men with low testosterone improves the functionality of the male gamete contribution to the zygote, resulting in better early embryonic development and higher capacity for implantation. Such result is of high essence in a surrogacy motherhood program whereby the partner's sperm must be utilised (due to legal reasons) in order to achieve a viable pregnancy.