USE OF TRANSDERMAL TESTOSTERONE IN PATIENTS WITH "POOR RESPONSE" TO OVARIAN STIMULATION FOR IN VITRO FERTILIZATION

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Background: The treatment of patients with poor response to controlled ovarian stimulation, with normal basal FSH concentrations, remains one of the most difficult challenges of reproductive medicine. Several studies have demonstrated synergism between androgens and FSH. This study investigated the usefulness of pretreatment with transdermal testosterone in poor responser IVF patients.

Methods: prospective study including 20 infertile women who had a background of the first IVF treatment cycle with poor response according to the Bologna criteria. In the second IVF attempt, all patients received transdermal testosterone treatment (30 mg per day) during the 5 days preceding gonadotrophin treatment. Data were analysed by Statistics Package for Social Sciences (SPSS) statistical software.

Results: The mean age of patients was 35±3 years. The mean BMI was 23,6±3,2. The average time of infertility was over 3,8±2,57 years. The basal FSH concentrations was 8,5±2,9 IU/L. The cause of infertility was in 25% of cases female factor infertility (endometriosis, tubal infertility, uterine fibroid), 30% male factor infertility and 45% unexplained infertility. E2 serum levels on the day of hCG was significantly higher testosterone cycle (816 vs 1486 pg/mL, p 0.036). The mean dose of FSH administered was higher in the cycle with testosterone (3395 vs 2521 UI p 0.01). The number of follicles larger than 17 mm, mature oocytes and embryos of higher quality tends to be higher in testosterone cycle, but without reaching statistical significance. Higher pregnancy rate (10% vs 35%) and less canceled cycles was observed using testosterone patches (30% vs 20%) with p0,05.

Conclusions: Pretreatment with transdermal testosterone may improve the ovarian sensitivity to FSH and follicular response to gonadotrophin treatment in previous poor responder IVF patients.