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TITLE

THE VALUE OF GROWTH HORMONE CO-TREATMENT IN IVF/ICSI CYCLES FOR POOR RESPONDERS

AUTHOR/S

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ABSTRACT

Context: The value of growth hormone (GH) co-treatment in IVF/ICSI cycles for “poor responders”

Objective: to estimate the efficacy of GH co-treatment of antagonist IVF/ICSI cycles in “poor responders”.

Methods: All patients underwent standard antagonist protocol with or without GH. Subcutaneous daily injections of 1,33 mg (equivalent to 4 IU) of GH were given from the day 1 of ovarian stimulation until the day of hCG. Serum concentration of GH, IGF-I and IGFBP-3 were analyzed on day 1 of ovarian stimulation and the day of oocyte retrieval. Mentioned markers were also determined in follicular fluid.

Patients: The study involved 50 patients: GH group (n=25), gonadotropins only group (n=25). “Poor responders” were defined according to the Bologna consensus criteria.

Intervention(s): no intervention(s)

Main Outcome Measure(s): number of metaphase II oocytes retrieved and fertilized, high-quality transferred embryos, clinical pregnancy rate.

Result(s): The day 3 FSH level was significantly higher in the GH group. However, the GH co-treatment significantly lowered the duration of ovarian stimulation and was associated with reduced IGFBP-3 level in serum and follicular fluid on the day of oocyte retrieval. The number of metaphase II stage oocytes (2 (1;6) vs. 1 (0;1) p=0,009), 2 pronucleus zygotes (2 (1;3) vs. 1 (1;2) p=0,019) and high-quality transferred embryos (1,5 (1;2) vs. 0 (0;1) p=0,018) was significantly higher in the GH group as compared to the second group. Only patients from GH group became pregnant; clinical pregnancy rate was 27,27 %.

Conclusions: GH administration in IVF/ICSI cycles for “poor responders” raises ovarian sensitivity to the exogenous gonadotropins, increases number of high-quality embryos and, thereby, clinical pregnancy rate.

INSTITUTE

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