

## INFLUENCE OF OVARIAN STIMULATION WITH HUMAN AND RECOMBINANT FOLLICULOTROPIN ON IN VITRO FERTILIZATION OUTCOMES-EVALUATION WITH TIME-LAPSE SYSTEM

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### Abstract Body

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Achieving pregnancy by in vitro fertilization (IVF) treatment depends on many factors, including performed stimulation efficiency and capacity of the ovary. Ovarian reserve is assessed, inter alia, on the basis of follicle-stimulating hormone (FSH), luteinizing hormone (LH) and anti-müllerian hormone (AMH) levels. This research aims to evaluate the influence of induced ovulation and specified hormonal parameters on the dynamics of embryo development on the effectiveness of intracytoplasmic sperm injection procedures.

This study involved 300 women aged 25–30 years undergoing fresh IVF. The ovarian stimulation was carried out by the administration of gonadotropin-releasing hormone analogue, followed by recombinant FSH, and human gonadotropin (hFSH). The growth of all the embryos from each patient was monitored continuously. Serum levels of estradiol were assessed on the day of administration of recombinant chorionic gonadotropin (rhCG) and converted into the level of estradiol per  $\geq 18$  mm follicle. On the third day of the cycle preceding ovulation, we analyzed FSH, LH and AMH levels.

The level of estradiol on the day of administration of rhCG, and the type of gonadotropins applied, affect the dynamics of embryo development. However, it is the patient's level of AMH and FSH that has the greatest impact on achieving pregnancy.