

## IVF OR ICSI IN CASES WITH OPTIMAL SEMEN PARAMETERS AND LOW OOCYTE YIELD?

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### Abstract Body

#### Introduction

In the last two decades, the use of ICSI (intracytoplasmic sperm injection) has increased considerably, even among patients without severe male factor infertility. Currently the ICSI method is used predominantly in over 65% of cases in assisted reproduction in Europe. In the literature there is some evidence regarding statement that the ICSI procedure does not lead to better results compared to the conventional IVF (In vitro fertilisation) in couples where the male partner is with normal sperm parameters. The argument is whether or not ICSI should be used for all indications for the infertility treatment still remains a dilemma.

#### Materials and methods

A retrospective, single center study including female patients (n=869), aged 25–45 years, who underwent IVF or ICSI treatments for non-male factor infertility between January, 2013 until December, 2017.

Group A (n=105) women underwent conventional IVF (n=27 with age 25 – 35; n=47, age 36-45). Group B (n=764), were underwent ICSI procedure only (n= 215, age 35 – 43; n=549, age 36-45). Female patients underwent standard controlled ovarian hyperstimulation (COH) or natural cycle observation. Number of eggs that has been collected was up to four. Male partners were with Normozoospermia or light form of Asthenozoospermia ( $\leq 40\%$  motility) according to World Health Organisation (WHO-V). Exclusion criteria: donor oocytes, severe male factor infertility.

#### Results

The clinical pregnancy rates (CPR) between IVF and ICSI groups were non-significantly different (A=26% vs B=23,3%; P=0.6192). Both groups were similar in relation to number of inseminated oocytes ( $2,1 \pm 0,3$ ), percentage of fertilization rate ( $71,6\% \pm 0,13$ ), cancelation rate ( $29,5 \pm 0,5$ ) and number of transferred embryos ( $1.65 \pm 0.16$ ). In younger patients pregnancy outcome was similar (A=33,3% vs B= 31,3%) independently to the method that has been used. The same results was observed in advanced maternal age cohort (A=21,4% vs B= 20,4%).

#### Discussion

There is no statistically difference in CPR outcome when we use IVF or ICSI as a method in relation to female age when up to four oocytes has been inseminated. These results show that regardless which method to choose for insemination in low yield of oocytes the outcome was similar even in normal or optimal semen quality.