

PCOS PATIENTS CAN BENEFIT FROM IN VITRO MATURATION (IVM) OF OOCYTES - A CASE CONTROL STUDY

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Objective: IVM approach in PCOS patients eliminates the risk of OHSS and lowers the cost of treatment. On the other hand, lower success rate of IVM compared with IVF is reported. Our aim was to compare cycle's outcome of IVM to IVF in PCOS patients.

Design: Matched case control retrospective study.

Setting: University-based tertiary medical center.

Population: PCOS patients (IVM- 108, IVF- 108)

Methods: IVM and IVF treatment

Main outcome measures: Delivery rate.

Results: We found significant difference in IVM compared with IVF in the number of mature oocyte derived (10.4 ± 6.2 vs. 15.3 ± 8.8 , $P < 0.0001$) and cleavage rate (92.1 ± 13.2 vs. 95.2 ± 11.7 , $p < 0.0001$). Owing to lower implantation rate (16.9% vs. 21.6% $p = 0.01$) we tend to transfer more embryos in the IVM group (3.4 ± 0.8 vs. 2.8 ± 1.0 , $p < 0.0001$), however the rate of multiple pregnancy in the IVM group was not higher. Importantly, Delivery rate was similar in both IVM and IVF group (29.7% vs. 30.7%). We reported as well the yearly change of success rate in IVM during this period.

Conclusions: IVM is a comparable treatment for PCOS patients. It offers high clinical pregnancy rate, eliminate the risk of OHSS and reduce coast of medication.