

**00043 Double Stimulation for Poor Ovarian Responders**

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**Aims:** This study aims to evaluate the effectiveness of double-stimulation protocol for patients with poor ovarian reserve by increasing the number of viable oocytes for intracytoplasmic sperm injection (ICSI).

**Methodology:** The hormonal stimulation for double stimulation protocol is similar to the conventional protocol, with the exception of the use of 20 or 40 IU of Lucrin for trigger with additional option of using 5000IU of Pregnyl. On the 5th to 7th day after the first oocyte retrieval, ovarian stimulation will repeat with the same protocol. A retrospective study was conducted in which 19 couples who underwent double stimulation cycles between January 2016 and December 2018 were included. All the viable oocytes underwent ICSI and fertilized embryos were vitrified.

**Result:** A total of 40 cycles were done, 101 oocytes were retrieved, 77 were viable and mature for ICSI, 47 oocytes fertilized and 40 embryos were vitrified on Day 2. The maturation, fertilization and pregnancy rates were 76.2%, 61% and 14.3% respectively. 16 out of 19 couples successfully vitrified 40 embryos for future use. 13 couples returned for frozen-thawed cycles within the same year. Till date, a total of 32 vitrified embryos were thawed, 9 patients proceeded with 10 cycles of embryo transfer on day 2 which resulted in 1 singleton pregnancy, however the pregnancy did not continue. 4 patients underwent embryo transfer on day 3 and 1 patient resulted in a singleton ongoing pregnancy.

**Conclusion:** Double stimulation favours patients who would need more than one IVF stimulus attempt to produce adequate number of oocytes. The greatest benefit of this protocol is that there is the second stimulation takes place during the luteal phase and allows the accumulation of a larger number of oocytes within a shorter time frame. This increases the number of viable embryos thus favouring the final clinical outcome.