

DIFFERENT STRATEGIES FOR FINAL OOCYTE MATURATION IN MONOFOLLICULAR CYCLES

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HCG, LH and GnRH agonists are used for final oocyte maturation in controlled ovarian hyperstimulation cycles prior to oocyte puncture to evoke an endogenous LH surge. The best strategy for final oocyte maturation in monofollicular cycles for intrauterine insemination (IUI) remains to be determined. Therefore we assessed HCG, triptorelin or their combination for final oocyte maturation in monofollicular cycles.

We included 77 consecutive cycles for IUI with proven LH surges. Stimulation was performed with recombinant FSH starting at day 2 of a spontaneous cycle with 50 IU daily. Final maturation was triggered as soon as one follicle reached 18 mm in diameter with 5.000 IU HCG, with 0.1 mg triptorelin or with the combination of both. No luteal phase supplementation was commenced. Estradiol, LH, FSH and progesterone levels were determined at the day of final maturation, at the day of the LH surge and mid-luteal.

Mean LH in the agonist group was 74.1 IU/L (± 6.9), in the HCG group 42.9 (± 2.1) IU/L and with the combination of triptorelin and HCG 70.6 (± 11.4) IU/L. HCG alone or in combination with triptorelin led to a sufficient mid-luteal progesterone rise (>8 ng/ml) in 55 of 57 patients (96, 5%), whereas with triptorelin alone an adequate progesterone rise only occurred in 2 of 20 cycles (10%).

Triptorelin for final oocyte maturation in monofollicular cycles led to adequate high LH levels, but to an insufficient luteal phase expressed by low progesterone levels. Therefore, triptorelin alone for final oocyte maturation in IUI cycles is not suitable.