

EXPRESSION OF ANDROGEN RECEPTOR, ANTI-MULLERIAN HORMONE AND SOX 9 IN GRANULOSA-LUTEAL CELLS IN WOMEN UNDERGOING ASSISTED REPRODUCTION WITH GNRH AGONIST DOWN-REGULATION AND STIMULATION WITH RECOMBINANT FSH AND RECOMBINANT LH SUPPLEMENTATION

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Purpose: Controlled ovarian hyperstimulation (COH) is one of the pivotal steps in assisted reproductive technology (ART). Recombinant LH (rLH) was just approved by the Department of Health in July 2004, and its use for COH regarding indications, timing, and dosage is not yet fully elucidated. Recent reports indicated that rLH may be helpful in patients over 35 years old receiving down-regulation protocol for ART. It has been shown that rLH may increase oocyte quality, fertilization rate, embryo quality, and pregnancy rate in the above patient group. We plan to investigate the characterization expression of Androgen receptor, Anti-Mullerian hormone and Sox 9 of granulosa-luteal cells between patients receiving and not receiving rLH.

Materials and methods: Thirty -five women with add LH and 70 women without LH supplementation for IVF/ICSI treatment in our institution Expression of AR,AMH and SOX9 was determined in granulosa-luteal cells and were analyzed using reverse transcription polymerase chain reaction (PCR).

Results: There was comparable effect of number o of oocytes retrieved, number of mature oocytes retrieved, normal fertilization rate number of mean embryos transferred and clinical pregnancy rate per transfer between add-LH and non-add LH cycles groups The levels of expression of AR, AMH and SOX9 mRNA were significantly higher in granulosa-luteal cells from women with LH supplement group than without-LH supplement group.

Conclusion: These results demonstrated that increased expression of AR, AMH and SOX9 is a feature in granulosa-luteal cells with LH supplement. But the physiologic roles need to further elucidate in the future.