9th Yazd International Congress and Student Award on Reproductive Medicine with 4th Congress of Reproductive Genetics

Oral Presentations

O-36
The serum levels of insulin-like growth factor-1 as a prognostic and diagnostic tool in IVF

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Insulin-like growth factor 1 (IGF-1), is a small single-chain polypeptide, secreted by liver in response to GH. The IGF-1 is expressed in most tissues but has a specific role in amplification of gonadotropin hormonal action during follicular growth and development.we want to discuss about some possible benefit of checking IGF-1 serum level in ART.
Measuring GH levels in the serum may not reflect true GH status as the hormone is released in a pulsatile manner, mainly during the night. We can check IGF-1 serum level in order to determine which women may benefit from GH as an adjuvant therapy. It would also be useful to know whether the baseline serum IGF-1 level has any predictive value in women with normal ovarian reserve. High levels of IGF-1 in day 2 in these patients predict a poorer response than expected based on traditional ovarian reserve markers so, this marker could be used to guide the starting dose and protocol selected for these patients. The most important uses of checking IGF-1 serum level is in poor responders group. The poor responder group demonstrated more than two fold increase in the mean serum level of IGF-1 in cycle day 2 compared with normal responders, and a three fold increase compared with the high responder group . IGF-1>72 ng/ml in day in the poor responder group had 70% sensitivity and 78% specificity for a negative outcome. Cycle day 2 IGF-1 serum levels are predictive for a negative outcome to COH in the poor responders group. We can check IGF-1 serum level for improving IVF outcome and this parameter could be used to: 1) reflect true GH status and AGHD diagnosis to determine which women may benefit from GH as an adjuvant therapy. 2) to predict a poorer response than expected based on traditional ovarian reserve markers. 3) to guide the starting dose and protocol selected for patients. 4) to predict negative outcome to COH in the poor responders group. 5) to determine which women benefit from LE pretreatment.