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

Poster Presentations

P-128

Determining an optimal cut-off value for follicle-stimulating hormone to predict microsurgical testicular sperm extraction outcome in patients with non-obstructive azoospermia

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Background: Determining the success of sperm retrieval for infertile men before using assisted reproductive technologies can decrease the costs. Using endocrine markers, as an inexpensive and non-invasive method is considered to be a clinically suitable marker in assessment of infertile men.

Objective: To determine the optimal cut-off value for follicle stimulating hormone (FSH) to predict the outcome of microsurgical testicular sperm extraction (micro-TESE) in patients with nonobstructive azoospermia (NOA).

Materials and Methods: We included a total number of 180 patients with NOA. The serum level of FSH was determined and all the subjects underwent micro-TESE. We determined the optimal cut-off value for FSH and assessed whether the test could be effectively used as a successful predictor of sperm retrieval by calculating the receiver operating characteristic area under the curve.

Results: Overall, we included a total number of 171 patients with mean age of 34.3 ± 8.6 yr. The micro-TESE was considered to be successful in 79 (43.8%) while it failed in 92 (56.2%) patients. We found that the mean level of serum FSH was significantly higher in group those with failed micro-TEST compared to successful group ($P < 0.001$). The cut-off value for FSH was calculated to be 14.6 mIU/mL to predictive the outcome of micro-TESE with a sensitivity of 83.5% [73.5%-90.9%] and a specificity of 80.3% [69.5%-88.5%]. At this value, the other parameters were calculated to be PPV, 81.5%; NPV, 82.4; LR+, 4.23; and LR-, 0.21.

Conclusion: The results of the current study indicate that FSH plasma levels above 14.6 mIU/mL can be considered to be the failure predictor of the micro-TESE in NOA patients.

Key words: *Follicle-stimulating hormone, Non-obstructive azoospermia, Microsurgical testicular sperm extraction.*

The original full text of this abstract has been published in Archives of Endocrinology and Metabolism 2020; 64(2): 165-170. http://dx.doi.org/10.20945/2359-3997000000217.

How to cite to this article: *Jahromi BN, Zeyghami S, Parsanezhad ME, Ghaemmaghami P, Zarei A, Azizi Kutenaee M, Sohail P, Keshavarz P. Determining an optimal cut-off value for follicle-stimulating hormone to predict microsurgical testicular sperm extraction outcome in patients with non-obstructive azoospermia. Archives of Endocrinology and Metabolism 2020; 64(2): 165-170.*