

Joint assessment of Inhibin B, follicle stimulating hormone and luteinizing hormone can predict sperm retrieval in fine needle aspiration for 306 patients with non-obstructive azoospermia

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Abstract

Invasive laboratory tests that can predict sperm recovery in patients with non-obstructive azoospermia (NOA) has aroused an increasing interest to andrologists in recent years. The aim of this study was to evaluate the predictive value of sperm retrieval performed by FNA in NOA. We conducted a retrospective study that 306 patients with NOA were performed with the fine needle aspiration (FNA) procedure at the clinic of the Centre for Reproductive Medicine, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, China. Inhibin B, FSH and LH plasma levels were analyzed and 67 out of 306 cases has successfully retrieved sperm with FNA. Depending on the result of FNA procedure, we classified the whole NOA patients into two groups, successfully retrieved sperm group (SRS) and unsuccessfully retrieved sperm group (USRS). There were statistically significant differences between them in terms of mean serum Inhibin B, FSH and LH levels. The areas under the curve (AUC) of inhibin B, FSH and LH were 0.696, 0.729 and 0.747 respectively, and the AUC for the joint assessment of the three hormones is 0.832. The cut-off points were 27.31 pg/ml, 11.68 IU/L and 4.04 IU/L for inhibin B, FSH and LH respectively. This study suggests that the joint assessment of inhibin B, FSH and LH is a more effective predictor for successful sperm retrieval in patients with NOA before decision making of an invasive procedure than any single hormonal factors.

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Biography

Huang Xunbin was educated at the Medical College of Wuhan University (China), Tongji Medical College, Huazhong University of Science and Technology (China). His education has a background in clinical medicine, reproductive medicine

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