

17th World Congress of the Academy of Human Reproduction

15–18 March 2017
Rome, Italy

TITLE

OVARIAN RESERVE TESTS IN DIFFERENT AGE GROUPS OF INFERTILE WOMEN.

AUTHOR/S

Barbakadze L (GE) [1], Khomasuridze A (GE) [2], Kristesashvili J (GE) [3]

ABSTRACT

Context: In recent years assessment of ovarian reserve to determine the strategy for treatment of female infertility has become essential. **Objective:** To identify the correlations between currently used ovarian reserve tests: anti-Mullerian hormone (AMH), follicle stimulating hormone (FSH) and antral follicle count (AFC) and to distinguish the most reliable markers for ovarian reserve. **Methods:** Subjects were divided into three age groups: group I <35 years (n=39), group II 35-40 years (n=31), and group III 41-46 years (n=42). **Patient:** In total, we prospectively studied 112 infertile women. **Intervention:** AMH, FSH and AFC were determined on days 2-3 of menstrual cycle. **Main Outcome Measures:** Correlations between AMH, FSH and AFC in whole group and in different age groups. **Results:** There was a significant correlation between age and AMH ($r=-0.67$, $p<0.0001$) and AFC ($r=-0.55$, $p<0.0001$). Significant correlation detected between age and FSH as well ($r=0.38$, $p<0.0001$). AMH correlated with FSH ($r=-0.48$, $p<0.0001$) and AFC ($r=-0.71$, $p=0.0001$). There was a moderate negative relation between FSH and AFC ($r=0.41$, $p=0.0001$) and moderate positive relation between age and FSH ($r=0.38$, $p<0.0001$). The correlation analysis performed in separate groups revealed significant correlation between AMH and AFC for all groups I ($r=0.57$, $p<0.0001$), II ($r=0.69$, $p<0.0001$), III ($r=0.47$, $p<0.002$). Significant correlation between FSH and AMH was detected only in groups I ($r=0.41$, $p<0.02$) and II ($r=-0.55$, $p<0.0001$). Significant correlation existed between FSH and AFC only in group III ($r=0.42$, $p<0.006$), as well as between age and AFC only in group I ($r=0.35$, $p<0.03$). **Conclusions:** Currently, AMH should be considered as the more reliable test of ovarian reserve compared to FSH. The use of AMH combined with AFC may improve ovarian reserve evaluation.

INSTITUTE

[1] Tbilisi State University, Archil Khomasuridze Institute of Reproductology, [2] Tbilisi State University, Archil Khomasuridze Institute of Reproductology, [3] Tbilisi State University, Center for Reproductive Medicine "Univers"