

P236. Ovarian reserve in adolescent girls born with intrauterine growth retardation

O P Gnatko (UA) [1]

Reproductive disorders are often generated during the intrauterine period at the stage of laying the follicular apparatus anlage, the formation of the main links of the reproductive system. Intrauterine growth disorders can cause unsatisfactory reproductive health parameters of girls entering into fertile age. The objective was to study the state of the ovarian reserve in adolescent girls born with intrauterine growth retardation.

Methods. The state of the ovarian reserve was studied by examination of antimüllerian hormone (AMH), FSH, LH, estradiol (E2) levels using enzyme immunoassay and ELISA test kit. Ultrasonic parameters of the ovarian reserve were measured, including the volume of the ovaries and antral follicle counts in the section on the Aloka SSD-1700 apparatus (Japan) using a transabdominal sensor. Based on the questionnaires and analysis of medical records, the fact of the patient's birth with intrauterine growth retardation was established. Correlation, regressive, dispersive and discriminant analyses were carried out.

Patients. We examined 39 girls aged 16-17 years who were born with intrauterine growth retardation: 18 were born at 34-36 weeks of gestation, 11 at 36-37 weeks of gestation, 10 at 38-39 weeks of gestation. The control group consisted of 30 healthy adolescent girls of the same age who were born at 38-40 weeks of gestation without intrauterine growth retardation. **Main outcome.** 18 (46.2%) girls of the study group were born by cesarean section due to severe hemodynamic disorders. In the study group, 27 (69.2%) girls born prematurely had menstrual disorders. **Results.** Reduced ovarian reserve by all criteria was observed in 9 (23.1%) patients of the study group with menstrual disorders; 30 (76.9%) had no hormonal profile disorders compared to the control group. The antimüllerian hormone (AMH) was 13.8 times lower than in girls without menstrual function disorders. The correlation analysis revealed a significant positive correlation between AMH and ovarian volume ($r = 0.52$), AMH and the antral follicle counts ($r = 0.54$), and a significant negative correlation between AMH and FSH ($r = -0.61$). The lowest parameters of the ovulatory reserve were observed in girls who had undergone hypoxia in utero and were prematurely born. **Conclusions.** Intrauterine growth retardation can be considered as a prognostic criterion for formation of inadequate gonads, which should be taken into account in calculating chances of the ovarian reserve.

[1] Bogomolets National Medical University, Kiev

