THE FEMALE-TO-MALE TRANSSEXUAL PATIENTS: A SOURCE OF HUMAN OVARIAN CORTICAL TISSUE FOR EXPERIMENTAL USE.
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Background: The scarce availability of donated cortical ovarian tissue is a limiting factor in research of follicular survival after cryopreservation. The ovaries removed from female-to-male transsexual patients (FTMs) can be used as research material for ovarian cryopreservation and recently has been demonstrated that long-term androgen exposure does not affect the number of primordial follicles.

Objective: To analyze the distribution of primordial follicles in ovarian cortical fragments investigating both ovaries in the same patient and to study their correlation with clinical and hormonal parameters measured on the day of surgery.

Materials and Methods: We included 13 FTMs patients with received long-term treatment with androgen prior to undergoing sex-reassignment surgery (SRS). The ovarian cortex was cut into blocks of approximately 8x2x1mm under sterile conditions. Three pieces (1cm²) from each ovary were analyzed for histological examination in fresh. We counted the primordial follicles according to the clinical and hormonal parameters.

Results: The mean age was 31.50±3.53 years (range: 29-34) and BMI was 23.15±2.61 kg/m² (range: 21.3-25). All the FTMs showed abnormally elevated testosterone levels (698±309ng/dl) and hirsutism following androgen therapy. Primordial follicles were not homogeneously distributed within the ovarian cortex but the mean primordial follicles was similar in each ovary (137.54±261.64 vs 120.15±148.86 fols; p >0.05). There was no correlation between primordial follicle count and clinical and hormonal parameters of the patients.

Conclusions: Ovarian cortex blocks of FTMs treated with long-term androgens show a heterogeneous distribution within each ovarian cortex but no differences are observed regarding the total count of primordial follicles in both ovaries for each patient.