OVARIAN RESERVE AFTER COMPLEX TREATMENT FOR POST CRANIAL FOSSA TUMORS IN CHILDHOOD

E. Gubernatorova¹, T. Tselovalnikova¹, M. Pavlova¹, N. Mazerkina¹, T. Kaznacheeva², E. Kotlyrovskaya¹

¹Endocrinology, I.M. Sechenov First Moscow State Medical University, Russia
²Reproductive Medicine and Surgery, Moscow State Medical Dental University, Russia

Methods: ovarian reserve and level of gonadotrophins was evaluated in 17 women that underwent treatment for post cranial fossa tumors (PCFT) in Russian Federation from 1990 to 2009 years. Median (Me) age at the moment of observance was 18 years (16 to 25), Me age at the original diagnose was 12 years (3 to 15), Me follow up was 5 years (2 to 20). 16 of them obtained craniospinal irradiation 55 Gy and chemotherapy. 14 women got supporting chemotherapy for protocol M-2000 containing (VCR 45 mg/m², CDDP 560 mg/m², CCNU 700 mg/m²) and 2 women cyclic chemotherapy for protocol M-2000 (VCR 15 mg/m², CPM 6000 mg/m², CDDP 180 mg/m², CCNU 100 mg/m²; BFM-90: VCR 6 mg/m²), 1 had no chemotherapy. All women were examined physically, by ultrasound and hormonal analyze.

Results: 4 women had primary amenorrhea, 4 - secondary amenorrhea, 5- oligomenorhea, 4 – had normal menstrual cycles. Me FSH 9.79 mU/l (0.19 to 118), LH 8.0 mU/l (0.1 to 42.0). Elevated level of FSH was detected in 4 women, all of them had amenorrhea. It is interesting that there were no statistically significant differences in level of gonadotropins between women with normal menstrual cycles and oligomenorrhea. Me level of AMH was 0.16 (0.038 to 1.7). Me ovarian volume was 2.55 ml (0.22 to 6.7). Number of antral folliculs was less than 6 in 9 women, complete depletion in 6 women.

Conclusion: women after complex treatment for PCFT in childhood have low ovarian reserve. Gonadoprotection should be offered before treatment.