

Reproductive function in female kidney transplant recipients

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According to population registries prevalence of chronic kidney disease (CKD) in the world is about 10%. Global trends show growth of CKD due to chronic tubulointerstitial nephritis, secondary nephropathies. Kidney transplantation (KT) is a "gold standard" in CKD treatment. It was performed 362 times in 2017 in Belarus. The aim of the study was to evaluate menstrual function and hormonal changes in female kidney transplant recipients. The study included 55 women aged 18-44 who had undergone KT within last 5 years. They had adequate graft function confirmed by serum creatinine, urea, cystatin C, glomerular filtration rate. They were administered immunosuppressive drugs (Ciclosporin, Tacrolimus, Azathioprin, Mucophenolate mofetil) in different combinations. Patient's history was collected by questionnaire, hormone testing was conducted by ELISA. Control group consisted of healthy regularly menstruating

women matched by age. 68% of women after KT have regular menstruations with confirmed ovulation, 22% show oligomenorrhea, 10% are amenorrheic. Menstrual function restored within one year after KT. LH and FSH (on 5th and 25th days) showed no differences in both groups. Oligomenorrhea was accompanied by significant decrease in progesterone level to 5.48 pmol/L, statistically significant ($p<0.01$) increase in estradiol level (up to 2.5 nmol/L) in the follicular phase. Elevated prolactin level to 948 mME/L ($p<0.01$) and significant decrease of testosterone level to 0.1 pg/mL ($p<0.01$) were found in 33% of KT recipients. Antimüllerian hormone was significantly ($p<0.01$) lower (1.30-2.45 ng/mL) in regularly menstruating women after KT than in oligo- or amenorrhea. Vitamin D concentrations were comparable in two groups.

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