Summary and conclusion

End-stage renal disease (ESRD) typically causes hypothalamic–pituitary disturbances that result in anovulation and reduced fertility.

Renal transplantation can offer these women with ESRD not only an improved quality of life but also the possibility of increased fertility and improved pregnancy outcomes.

After a successful kidney transplant, uremia resolves and the pituitary hypothalamic hormonal function returns to normal. Although approximately 16% of patients may have persistent amenorrhea, the majority of women become ovulatory and resumes menstruation by one year after renal transplantation.

Pregnancy is not contraindicated in renal transplant recipients with stable renal function, and a successful and healthy obstetric outcome can be expected in 95% of such cases.

Moreover, some immunosuppressive agents do not affect the fertility and could be used during pregnancy(e.g., steroids, cyclosporine/tacrolimus and azathioprine).

On the other hands some immunosuppressive drugs has teratogenic effect. Such as, mycophenolate mofytil and sirolimus.

There is no pattern of congenital anomalies associated with the use of calcineurin inhibitors, azathioprine or steroids while the use of other agents may associated with major congenital anomalies.

The incidence of both maternal and fetal complications is related to the degree of graft dysfunction and/or hypertension prior to pregnancy.

However, not all female transplant recipients who desire children can conceive naturally. Although adoption is an option, some women desire genetic offspring.

Assisted reproductive technique (ART) has been successfully used in recipients of kidney transplants without compromising maternal allograft function. The goal of ART is a healthy child delivered at term without detriment to maternal health.

A multidisciplinary team is required to address the complex medical, ethical, and psycho-social issues involved in treating infertile transplant recipients. A team approach will ensure successful outcomes for mother and child in well-selected transplant recipients who desire pregnancy.

Posttransplant contraception should occur prior to transplantation in all transplant recipients of reproductive age. The optimal contraceptive agent to use after transplantation depends not only on balancing risks and benefits of each of possible contraceptive method, but also on consideration of costs of contraceptive and patient's ultimate desire to conceive.