

FIRST UTERINE TRANSPLANT IN SPAIN: ONE YEAR LATER

Mariona Rius¹, Berta Díaz-Feijoo¹, Marta Camacho¹, Meritxell Gracia¹, Dolors Manau¹, Aina Borrás¹, Raquel Musquera², Lluís Peri², Antonio Alcaraz², Francisco Carmona¹

¹Gynecology Department, ICGON, Hospital Clinic of Barcelona. Barcelona, Spain.

²Urology Department, ICNU, Hospital Clinic of Barcelona. Barcelona, Spain.

INTRODUCTION

Absolute uterine factor affects millions of women and may be due to congenital or acquired by previous surgeries. The uterine transplant represents the only possibility for these patients to achieve both genetic and gestational maternity. The objective of this study is to describe the follow-up and results of the first uterine transplant in Spain.

MATERIALS, PATIENTS AND METHODS

In October 2020, a 31-year-old patient with absolute uterine factor due to Rokitansky Syndrome (RS) who fulfilled inclusion criteria underwent uterine transplant. The donor was her sister, a 39-year-old woman with a previous healthy pregnancy and vaginal delivery. Before the transplant, the patient underwent an in-vitro fertilization procedure, with two ovarian stimulation cycles and oocyte retrievals. Twelve embryos were obtained and four of them were euploids according to the genetical test. After surgery, patient was followed-up weekly during the first month, fortnightly for the second and third month, and monthly afterwards. In each visit, a physical exam, vaginal and endocervical samples for culture, ultrasound scan as well as cervical biopsy were performed.

CONCLUSIONS

Uterine transplantation is a rapidly expanding field and opens new hopes for patients with absolute uterine factor. Nonetheless, we are still facing challenges such as those regarding the results from IVF, embryo transfer and pregnancy outcomes in these patients.

RESULTS

The ultrasound scan showed from the first day after surgery a correct uterine artery and veins flow. The cervical biopsies did not show signs of rejection until the third week, when mild rejection was detected. The patient underwent a corticosteroid treatment according to our protocol. Afterwards, the cervical biopsies were normal, without rejection signs. After six months of the transplant, we started to prepare the patient for embryo transfer. In order to achieve a correct growth of the endometrium, the patient went through a natural cycle enhanced with 75 UI HMG. The first embryo transfer, performed in June 2021 failed to achieve pregnancy. The second embryo transfer was performed with the same treatment, in July 2021. Pregnancy was achieved, an ultrasound scan showed a unique intrauterine gestation but the patient had a miscarriage at 7 weeks of pregnancy. After ten days of expectant management, the patient did not have any vaginal bleeding and intravaginal misoprostol was needed in order to complete it. After 4 hours, patient started bleeding and the transvaginal scan after 4 days showed an empty uterus. The third embryo transfer will be planned after the first period following the miscarriage.



Figure A . Doppler assessment of left uterine artery.

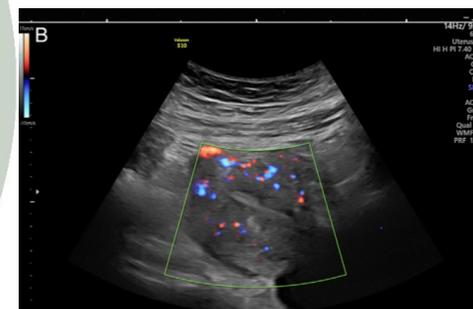


Figure B. Miometrial Doppler assessment