

# Could the female-to-male transgender population be donor candidates for uterus transplantation?



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# Absolute uterine factor infertility (AUFU)

Any condition which causes absence of uterus

- Congenital absence (MRKH)
- iatrogenic or non-function of uterus (severe intrauterine adhesions, multiple leiomyoma, etc.)

# Prevalance

- MRKH was estimated to be 1/4500 female births
- AUFI affects one in every 500 women in reproductive age

# Why Uterine Transplantation?

- An artificial uterus to support the embryo and carry the fetus has not been invented yet
- Adoption or gestational surrogacy are forbidden or are not acceptable in several countries due to social, legal or religious reasons.
- Surrogacy (In Turkey); Adoption (in Egypt)  
**NOT LEGALLY APPROVED**

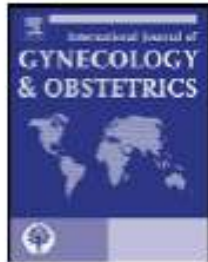


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FIGO COMMITTEE REPORT

### Uterine transplantation

FIGO Committee for the Ethical Aspects of Human Reproduction and Women's Health

“Unethical to remove a uterus for transplantation from young women who had not had the desired number of children.”

# Chronological order for UTx

Author, year	# of cases	Recipient	Donor (age)	Uterus Tx	Clinical Pregnancy	Live Birth
Fageeh et al., 2000	1	Peripartum hysterectomy	Live, unrelated (46)	Uterine prolapsus, necrosis	No	No
Ozkan et al., 2013	1	MRKH syndrome	Brain dead, unrelated (22)	Successful	Yes	No
Brännström et al., 2014	8 1	MRKH syndrome Cervical cancer	Live, related (mean:53)	Successful	Yes (5)	Yes (4)

# Objective

- To scrutinize Female-to-Male transgender people whether they could serve as uterus donors or not, to explore their attitude towards uterus donation (UD).

# Patients





# Patients

- From March 2014 to November 2015, 31 FtM transgender people underwent hysterectomy and bilateral salpingo-oophorectomy upon their request after all the legal procedures about gender reassignment had been completed.

# Method

- Morphological and histological eligibility of removed uteri were evaluated
- The attitude of FtM transgender people towards uterine donation were explored by a questionnaire BEFORE & AFTER giving detailed information about the ***standard hysterectomy*** and ***hysterectomy for procurement***

# Results

## Patients (n=31)

Age, years, mean ( $\pm$ sd) 28.5 ( $\pm$ 5)

Testosterone therapy, years  
median (range) 2.4(2.3)

Mensturel cycle irregularity, % 100

### Histology of the uteri ( %)

Adenomyosis, endometriosis, polyp,  
adhesion or uterine anomaly 0

Intramural myoma 6,5

Endometrial histology

- proliferative 58
- atrophic 21
- secretuary 39

Uterine volume, cm<sup>3</sup>, mean ( $\pm$ sd) 138 ( $\pm$ 48)

# Survey results

**BEFORE** giving  
information

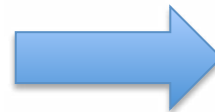
**AFTER** giving  
information

**96.7% : positive attitude**



**84 %**

**0 % : negative attitude**



**12 %**

***p=0.12***

# Discussion

# FtM donor candidate: a live donor

- Compared with recipients of deceased-donor kidneys, recipients of living-donor kidneys wait less time for transplantation, have a lower risk of rejection, and have better allograft survival and longer life

*From Reese, P.P et al. , Lancet, 2015*

- Long-term graft survival of kidneys from live donors is superior to that of kidneys from a deceased donor

# FtM donor candidate: volunteer

- Unlike other living-organ donors, who can expect continued organ system function (e.g., renal or hepatic), the uterus donor loses entirely her ability to have children. This may trigger some regrets.

HOWEVER transgender people are fully volunteer for donation



# FtM donor candidate: young

- Uterine aging may play a role in the reduction of endometrial receptivity, especially in elderly postmenopausal women

# FtM donor candidate: no risk for the donor

- Donors in 1<sup>st</sup> clinical trial, used combined oral contraceptives for 90 days before procurement to optimize uterine vasculature.

HOWEVER transgender people are in the reproductive period

# Conclusion

The proposal of the FtM transgender population as a uterus donor is a hypothetical model, which has not been experienced before. Nevertheless, our experience has revealed that FtM transgender population would be ideal candidates **socially, legally and biologically.**

Thank you

