

**Reproductive outcome after
surgical correction of Hypoplastic or
T-shaped Uterus**

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**OPERATIVE HYSTEROSCOPY
IN INFERTILITY SURGERY**

LEARNING OBJECTIVES

- Describe the profile of patients that constitute candidates for hysteroscopic infertility surgery.
- Describe the preoperative work-up and recognize techniques and diagnostic procedures that minimize the outcome of surgery and optimize the reproductive outcome

**OPERATIVE INFERTILITY
HYSTEROSCOPY**

- HYSTEROSCOPIC METROPLASTY
for hypoplastic or T-Sharped uterus
- SEPTUM RESECTION
- POLYPECTOMY OR MYOMECTOMY

**INDICATIONS FOR
HYSTEROSCOPIC
INFERTILITY SURGERY**

- REPRODUCTIVE WASTAGE
- PAST OF EARLY PRETERM LABOR
- INFERTILITY

**PREOPERATIVE EVALUATION
FOR HYSTEROSCOPIC
INFERTILITY SURGERY**

- HSG
- SONOGRAPHY
- HYSTEROSCOPY

TECHNICAL DIFFICULTIES ASSOCIATED WITH UNPREPARED ENDOMETRIUM

- Reduced visualization from dislodged endometrium
- Failure to recognize low-profile lesions
- Beware of cornua and fundus

REDUCING RISKS

- Preoperative mapping
- Endometrial preparation by E/P pills or GnRh Ag or follicular phase
- Activate electrode under vision
- Use 5FR Versapoint electrodes limits the destruction of the tissues
- Associated laparoscopy or sonography ?

Some examples of
infertility surgery

**Hysteroscopic Treatment
of Uterine Malformations :
hypoplastic uterus**

Hypoplastic or T-shaped Uterus

Poor reproductive performance : 34-59 % only at term

Hysteroscopic Metroplasty = Increase obstetrical prognosis ?

Uterine consequence of DES

Modification of uterine perfusion
Salle 1996
Epelboin 1998

Anatomical consequence of DES: Hypoplasia

- Cylindrical uterine cavity

Salle 1996 Viscomi 1980

- Bulging of the uterine side walls

Salle 1996

Anatomical consequence of DES:: Modification of the cavity

277 HSG

- Abnormalities : 70 %
- Hypoplasia : 31 %
- T-Sharped uterus : 31 %
- Abnormal cavity with, bulging of the uterine side walls, pseudo-synechia, diverticules...

Kaufman 1988

DES & IVF

- Oocyte quality & fecondation rate similar to control
- But lower implantation rate
 - T-Sharped uterus with bulging side wall
 - Hyperechogeneity of endometrium

*Karabande 1990
Noyes 1996
Kerjean 1999*

DES: Reproductive performance

- More Ectopic pregnancy 0.76 vs 4.2%
- More miscarriage 10.3 vs 20% RR=1.31
- More late abortion RR=3.84
- More preterm delivery 4.1 vs 11.5%
- More hemorrhage

*Kaufman 2000
Papiernik 2005*

Hysteroscopic metroplasty: surgical technic

- Aim: increase the uterine cavity
- Technic: Hook to decrease the bulging wall with two lateral incisions

Our experience

- 97 patientes: hôpital A.Béclère et SIHCUS CMCO Schiltigheim
- Janv. 1990 – Dec. 2001
- Primary infertility (56%) ou secondary (44%), no children alive
- 69% DES syndrom
- Good anatomical results : 96 % of patientes

Reproductive performance (1)

- 57 pregnancies for 48 women
 - EP: 5 8.7%
 - Miscarriage: 16 28%
 - Preterm: 11 22%
 - Term 28 58%
 - alive/pregnancy 36 63%
- 36% of women had one or more alive children

Reproductive performance (2) Delivery

- 19% breech
- 53% CS
- Term at delivery:
 - 78% at term
 - 22% between 34 & 36+6 W
- 1 case of severe hemorrhage
Hypogastric ligation

Reproductive performance

	Preoperative pregnancies	Postoperative pregnancies	
		Primary infertility	Secondary infertility
n	84	31	26
Miscarriage	61 (72.2%)	9 (29%)	7 (26.9%)
EP	14 (16.7%)	5 (16.1%)	0
Preterm D.	3 (3.3%) DCD	3 (17.1%)	5 (26.3%)
Term	0	14 (82.3%)	14 (73.7%)
alive	0	17 (54.8%)	19 (73%)
		36 (63% of deliveries) 36% of patients	

Complications

- No specific :
 - Perforation
 - Infection
 - Synechia
- During pregnancies:
 - Cervical Incompetence
 - Placenta praevia, placenta accreta
 - Uterine Rupture
 - Hemorrhage ?

Complications

	Literature	Our series
Placenta accreta	2 cas	0
Uterine Rupture	0	0
Hemorrhage	?	1
Synechia	Incidence ?	2
Cervical incompetence	Incidence ?	26% post op.

Indications

- T-Sharped uterus
 - Miscarriage
 - Idiopathic infertility
 - ART failure
- Systematically before IVF?

Surgeon with expertise in operative hysteroscopy

Rapport de l'HAS 2004

« les données de la littérature ne permettent pas d'apprécier l'efficacité et la sécurité de l'hystéroplastie dans le traitement des anomalies secondaires à l'exposition in utero au DES »

Rapport de l'HAS 2004

- Cette intervention:
 - Ne résout pas l'ensemble des problèmes de fertilité chez les filles DES
 - Ne doit pas être systématique
 - Ne doit pas être réalisée de première intention chez une patiente sans infertilité et /ou accident gravidique
 - Ne doit être effectué qu'après un bilan complet d'infertilité du couple et après optimisation de cette dernière
 - Doit être effectué par un chirurgien ayant une bonne expérience de l'hystéroscopie
- Quid des femmes nulligestes âgées ? Des femmes avant AMP ? En Première intention ?

Conclusion

Endoscopic treatment of hypoplastic or T-shaped uterus should be proposed to women with recurrent abortions
