MIGS 26

55TH GLOBAL CONGRESS ON MIGS

BOSTON, MASSACHUSETTS
NOVEMBER 13-16, 2026

Syllabus

Panel 558

Lectures From Around the Globe: Global Advances in MIGS: Access, Precision, and Surgical Safety

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Panel-558: Lectures From Around the Globe:
Global Advances in MIGS: Access, Precision, and Surgical Safety

Moderators: R. Edward Betcher, Marie Fidela R. Paraiso
Faculty: Mohamed Achour (MAMIGS, Morocco), Francisco Carmona, (SEGO, Spain), Ashish R. Kale (IAGE, India), Rebecca Mallick (BSGE, United Kingdom), Fevzi Shakir (BSGE, United Kingdom)

Course Description

Global progress in minimally invasive gynecologic surgery requires more than new techniques: it requires broader access, disciplined judgment, purposeful technology, and reproducible safety. Drawing on perspectives from India, Spain, the United Kingdom, and Morocco, this session moves from awareness and access through advanced surgical innovation, precision, complex decision-making, and prevention of urologic injury.

Learning Objectives: *At the end of this course, the participant will be able to:* 1) Describe strategies to improve awareness of and access to care for deep infiltrating endometriosis; 2) Describe the principal recipient-selection criteria, donor and recipient safety considerations, and reproductive outcomes associated with uterus transplantation; 3) Evaluate the applications and limitations of fluorescence guidance in complex gynecologic surgery; 4) Apply multidisciplinary decision-making principles to the management of renal endometriosis; and 5) Apply practical strategies to reduce urologic complications during laparoscopic hysterectomy.

Course Outline

11:00 am	Welcome, Introduction and Course Overview	
11:03 am	DIE: Increasing Awareness and Access	A. Kale
11:13 am	Uterus Transplantation: From Surgical Innovation to Reproductive Choice	F. Carmona
11:23 am	Fluorescence-Guided Surgery: The Next Era of Surgical Precision	R. Mallick
11:33 am	Complex Decision-Making in Renal Endometriosis	F. Shakir
11:43 am	Toward Zero Urologic Complications During Laparoscopic Hysterectomy	M. Archour
11:53 am	Discussion Questions & Answers	All faculty
12:00 pm	Adjourn	

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Disclosure of Relevant Financial Relationships

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Disclosure information and acknowledgment of any commercial support are provided to learners before the activity to promote transparency and maintain the independence and integrity of the education.

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The following members of AAGL have been involved in the educational planning and/or review of this course (listed in alphabetical order by last name).

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COURSE MODERATORS

R. Edward Betcher, MD*
Marie Fidela R. Paraiso, MD - Consultant: Asensus, Inc.; Key Opinion Leader: Smartfem Pty. Ltd.

FACULTY DISCLOSURES

The following faculty have agreed to support their presentations and clinical recommendations with the best available evidence from the medical literature (in alphabetical order by last name).

Mohamed Achour, MD*
Francisco Carmona, MD, MPH - Speakers Bureau: Theramex, CINFA, Medtronic, Gedeon Richter Pharmaceuticals: Consultant: Merck & Co.
Ashish R. Kale, MD*
Rebecca Mallick, MBCHB, FRCOG*
Fevzi Shakir, MBBS, BSc(Hons), FRCOG, MSc - Consultant: Theramex, Medtronic, Olympus, Arthrex

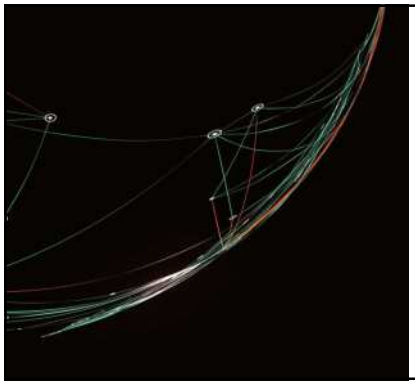
MITIGATION OF RELEVANT FINANCIAL RELATIONSHIPS

All relevant financial relationships have been mitigated.

Drs. Lee, Lemos, Mikhail, and Chaudhari's planning decisions, as part of the Scientific Program Committee (SPC), were peer reviewed by other planners on the SPC who had disclosed no financial relationships with ineligible companies, and found to be fair, balanced, and free of commercial bias. Dr. Moawad's financial relationships ended 12/2024, thus mitigating them. For most of his AAGL Professional Education Committee service, Dr. Mourad had no financial relationships to disclose. He recently disclosed a new relationship as a Proctor for Intuitive Surgical. Since then, he has not participated in activities involving control or influence over accredited educational content; therefore, no additional mitigation was necessary.

Dr. Paraiso's role as co-moderator is limited to facilitating educational discussions rather than developing or presenting clinical content. All moderators attested to maintaining balance, independence, objectivity, and scientific rigor; ensuring that educational content remains free of commercial bias; and supporting clinical recommendations with the best available evidence. These measures help safeguard the independence and integrity of the accredited education.

The presentation content for course faculty, Drs. Carmona and Shakir, has been peer reviewed and found to be fair, balanced, and free from commercial bias.



Between hormones and scalpel precision over protocol strategy stimulation and surgery

Dr.ashish kale.

MD,DNB,MNAMS,FICOG,FICMCH,FICS, FCLS

1



2

- CONFLICTS OF INTEREST
- GYNAEC ENDOMETRIOSIS SURGEON AS WELL AS IVF SPECIALIST.



3

- Introduction.
- Non surgical management
- Wait and see
- IUI
- ART
- SURGICAL
- effect on spontaneous pregnancy
- effect on ART.
- need for assisted Reproduction after surgery.

4

ENDOMETRIOSIS

prevalence in general population is 2 to 10%.

prevalence in Infertile population is up to 50%

DIE

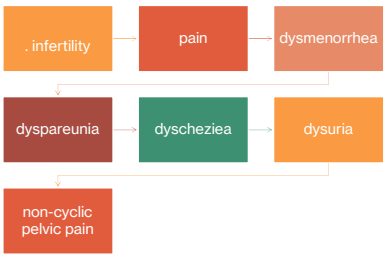
in 20 to 35% of the patient with endometriosis and

Colorectal involvement is up to. 5 to 12%.

Zondervan et al 2020
Meuleman et al Sterlity fertility 2009

5

What patients relates endometriosis



6

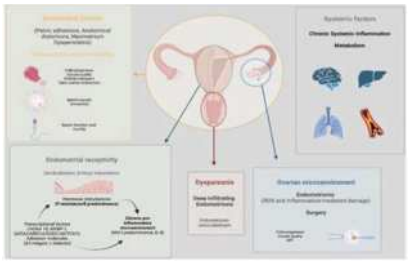
Not all DIE is the same

Some of them shows early disease with the normal patency of the tube meaning of single department disease.

some of them shows altered pelvic and anatomy.

7

Mechanism Of endometriosis causing infertility



- Bonavia and Tylor front endocrinol 2022

8

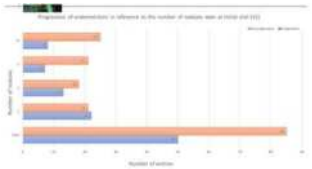




9

Wait And watch policy in DIE

- RETROSPECTIVE COHORT STUDY 135 PATIENTS
- 13% decrease in the nodule size .
- 37% increase in the size of the nodule
- and 50% that this is a static
- Conclusion of this paper reveals that only one third of the woman become symptomatic .
- would be given reassurance even if it is a DIE



10

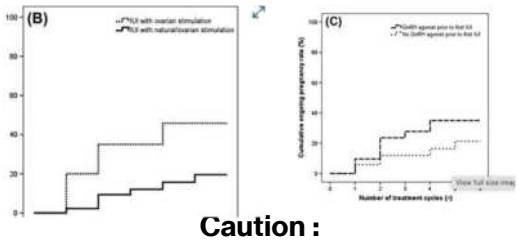
IUI AND DIE

Efficacy and safety of IUI performed moderate-to-severe endometriosis patients (ASRM III–IV).

Retrospective study
N= 245 diagnosed with proven endometriosis with at least 1 fallopian tube patent
Gruop1 45 Pts IUI without ovarian stimulation with 3 iui cycles
Group 2 20 pts Direct ovarian stimulation with 6 cycles

Efficacy and safety of intrauterine insemination in patients with moderate-to-severe endometriosis

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Caution :
Ovarian stimulation done with gonadotropins. Mixed population of surgically treated and non surgically treated groups

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How common is endometriosis at the start of ART

- PROSPECTIVE OBSERVATIONAL STUDY N= 1191
- Women with endometriosis and infertility starting their first a ART cycle.
- TVS SCAN.
- 21.8% WITH ENDOMETRIOISIS. 17% HAD DIE .16% NOT AWARE OF IT
- CONCLUSION – Awareness ,impotence of TVS

Prevalence of endometrioma and deep infiltrating endometriosis at transvaginal ultrasound examination of subfertile women undergoing assisted reproductive treatment

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ART in patients with endometriosis

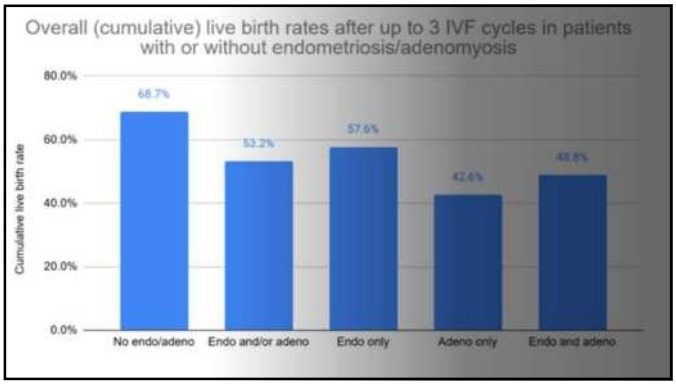
- No RCT comprising efficacy of ART in endometriosis and non-endometriosis patients.
- Systematic reviews .
- live birthrates ASRM I/II with no comparable outcomes
- Decrease in OOCYTE Decrease pregnancy rates.
- ASRM III/IV
- Decrease oocyte & implantation rate .
- Decrease in live birth rate and clinical pregnancy rates has been documented

The effect of endometriosis on in vitro fertilisation outcome: a systematic review and meta-analysis

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Number of cycles fresh and frozen with endometriosis and without endometriosis

- In the **first cycle**, 30.7% of women with endometriosis and/or adenomyosis had a live birth compared to 45.1% of those without (p< 0.001).
- In the **second cycle**, the numbers were 28.6% vs 41.4% (p= 0.023).
- By the **third cycle**, the rates were 26.2% vs 32.3%, and the difference was no longer significant (p= 0.183).
- This shows that the biggest drops in live birth rates is in the early attempts, which seem to be due to larger differences in fresh vs frozen transfers:
- **First cycle (fresh):** 19.8% with endo and/or adeno vs 32.0% without (p< 0.001).
- **First cycle (frozen):** 38.0% vs 46.0% (not significant).
- **Second cycle (fresh):** 22.0% vs 41.4% (p< 0.001).
- **Second cycle (frozen):** 33.3% vs 52.9% (p= 0.042).
- **Third cycle:** differences were small for both fresh and frozen and not significant.

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CONCLUSION

WITH ENDO

Lower LBR.

RESONABLE CHANCE WITH CONSECUTIVE TREATMENTS.

18

OS PROTOCOLS.

- NO significant difference in LBR as compare to agonist and antagonist protocol.
- NO difference with pretreatment with agonist prior to stimulation updates chochrane review 8 RCTS .
- Eshre guideline extended pretreatment no use in LBR .

The extended administration of GnRH agonist prior to ART treatment to improve live birth rate in infertile women with endometriosis is not recommended, as the benefit is uncertain. ⊕OOO Strong recommendation

Rodiguez et al gynaecol endocrinol 2013.
Drakapoulos etal 2018

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Stage III–IV endometriosis	GnRH agonist $n = 143$	GnRH antagonist $n = 126$	p Value
Start stimulation dose (IU), median (IQR)	225 (150–300)	200 (150–300)	.03[a]
Total stimulation dose (IU), median (IQR)	2400 (2000–3000)	2000 (1350–2625)	<.001[a]
Stimulation days, median (IQR)	11 (9–12)	9 (8–11)	<.001[a]
Number of oocytes, median (IQR)	8 (5–11)	7 (5–11)	.33[a]
Insemination method, *n* (%)			
IVF	32 (22.4)	16 (12.7)	.07[b]
ICSI	82 (57.3)	88 (69.8)	
IVF vs. ICSI	29 (20.3)	22 (17.5)	
Patients with embryo transfer, *n* (%)	130 (90.9)	114 (90.5)	.9[b]
Number of embryos transferred, *n* (%)			.6[b]
1	92 (70.8)	84 (73.8)	
2	38 (29.2)	30 (26.3)	
Day of embryo transfer, *n* (%)			.6[b]
Day 3	92 (70.8)	84 (73.7)	
Day 5	38 (29.2)	30 (26.3)	
Number of cryopreserved embryos, median (IQR)	1 (0–3)	1 (0–2)	.36[a]
β-hCG positive pregnancy rate per patients, *n* (%)	63 (47.7)	48 (38.1)	.4[b]
Clinical pregnancy rate per patients, *n* (%)	49 (34.3)	41 (32.5)	.9[b]
Live birth rate, *n* (%)	39 (27.3)	30 (23.8)	.5[b]

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DIENOGEST

- Medical pretreatment with pre stimulation .
- Divergent data
  decrease ↙ ↘ increase
- There is insufficient evidence to recommend prolong administration of progesterone as pretreatment to ART to increase live birth rates.
- Numbers of growing follicles, retrieved oocytes, fertilization rate, and blastocysts rates were significantly lower in the DNG group than in the control group. Although there was **no significant difference in the implantation rate between the groups, the cumulative pregnancy rate and live birth rate were lower in the DNG group than in the control group.**

- Tamura et al journal of ovarian research 2019
- Barrat al RBMO 2020

Randomized Controlled Trial > J Ovarian Res. 2019 Dec 12;12(1):123.
doi: 10.1186/s13048-019-0597-y.

The clinical outcome of Dienogest treatment followed by in vitro fertilization and embryo transfer in infertile women with endometriosis

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RBMO

ARTICLE · Volume 41, Issue 5, Pages 868, November 2020

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Pretreatment with dienogest in women with endometriosis undergoing IVF after a previous failed cycle

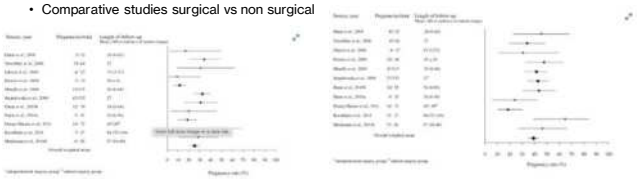
Fabio Barra · Antonio Simone Laganà · Carolina Scala · Simone Garzon · Fabio Ghezzi

Clinical pregnancy and live birth rates were significantly higher in the DNG-treated group (39.7%, 33.3% and 28.6%) than in the non-treated group (23.9%, 18.2% and 14.8%; $P = 0.049$, 0.037 and 0.043, respectively).
The largest diameter of endometriomas significantly decreased after DNG pretreatment ($P < 0.001$).
The use of DNG increased significantly the number of oocytes retrieved ($P = 0.031$), two-pronuclear embryos ($P = 0.039$) and blastocysts ($P = 0.005$) in women with endometriomas of diameter ≥4 cm.
IVF outcomes can be improved by pretreatment with DNG.
In particular, the use of DNG allows for better oocyte retrieval and blastocysts in patients with large endometriomas.

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Surgical Excision of DIE and Spontaneous Pregnancy

- No RCT
- Comparative studies surgical vs non surgical



- spontaneous
- ivf outcome
- Vercellini et al RBMO 2012.

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BOWEL ENDOMETRIOSIS

- Iversen et al AOGS 2017
- RETROSEPCTIVE observational studies

Table 1. Retrospective observational studies on postoperative complications and pregnancy rates after colorectal surgery for deep infiltrating endometriosis

	Total *n*	Desire for pregnancy, *n*	Spontaneous PR, %	Overall PR, %	Grade C leakage, %	Ureter lesions, %	Total major complic. %
Matsuo et al. 2014 [13]	246[a]	72	61	69	4	0	8
Kawahara et al. 2011 [14]	55[b]	33	61	66	4	0	11
Meijerman et al. 2009 [15]	56[a,c]	33	21	48	4	0	11
Jalenio et al. 2012 [16]	56[a,c]	56	57	71	0	2	12
Total	413	136	48	63	4	<1	9

- Prospective studies

The lack of proper data precludes conclusions on the potential role for bowel DIE surgery to improve the spontaneous pregnancy rate and of IVF results.
Positive effects cannot be excluded,

Table 2. Prospective studies on postoperative complications and pregnancy rates after colorectal surgery for deep infiltrating endometriosis

	Total *n*	Desire for pregnancy, *n*	Spontaneous PR, %	Overall PR, %	Grade C leakage, %	Ureter lesions	Total major complication
Minelli et al. 2009 [17]	357[a]	113	8	42	5	0.6%	12%
Donal et al. 2010 [18]	88[a]	51	39	47	8.00	0	12%
Roman et al. 2015 [19]	50[b]	20	50	80	4	0	20%
Total	495	184	21	55	5	<1%	13%

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Surgery for rectosigmoid DIE

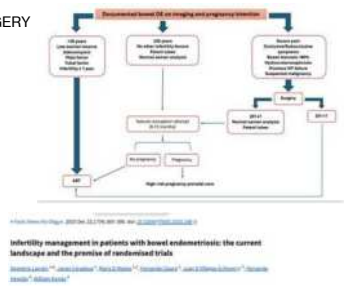
- N= 193
- 77% Bowel resection.
- 23% discoid resection.
- 16.6% redo surgical correction of complication .
- Complications didn't affect live birth rate or time to pregnancy

- Roos et al European journal of obgyn and reproductive biology 2023

25

Eshre guideline DIE

- DECISION FOR SURGERY
- Pain symptoms.
- Age of patient .
- Patient preference.
- Ovarian reserve.
- History.
- Estimated EFI.



Infertility management in patients with bowel endometriosis: the current landscape and the promise of randomised trials

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EFFECT OF SURGERY ON ART

INFERTILITY + ENDOMETRIOSIS

SURGERY THEN ART ART DIRECTLY.

EFFECT OF SURGERY ON ART

27

SURGERY AND EFFECT ON ART

- PROSPECTIVE TRIAL BRAZIL
- N= 179
- IVF/ICSI without surgery n= 105.
- Surgery then ART n= 64

	Group A	Group B	p
Total dose of FSH (IU)	2380 ± 911	2542 ± 1012	.01
No. of oocytes retrieved	10 ± 5	9 ± 5	.04
Fertilization rate (%)	77.9	78	.76
No. of top-quality embryos/patient	.59 ± 1	.57 ± 1	.48
No. of embryos transferred	3 ± 1	3 ± 1	1
Implantation rate (%)	19 ± 25.1	32.1 ± 30.6	.03
Pregnancy rate (%)	24	41	.004

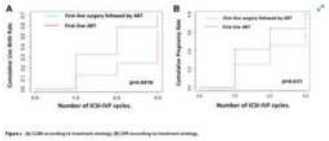
- Conclusion for every 6 women that underwent surgery an additional ivf pregnancy was achieved .

- Bianchi et al JMIG 2009

28

Surgery and effect on ART IN COLORECTAL DIE

- Retrospective cohort study
- N= 110
- First line ART
- SURGERY ⟶ ART
- Higher cumulative live birth rates after surgery for colorectal endometriosis.



- Bendifallah et al fertility sterility2017

29

First line surgery vs first line ART For DIE

- Systematic review
- Includes,
- 5 Retrospective studies
- 1 Prospective study

SYSTEMATIC REVIEW article

Front. Endocrinol., 18 April 2024

Sec. Reproduction

First-line surgery versus first-line assisted reproductive technology for women with deep infiltrating endometriosis: a systematic review and meta-analysis

Did not find significant differences in pregnancy rates per patient, pregnancy rates per cycle, and live births per patient between patients who received first-line surgery or ARTs for DIE.

- Ying Liang et al frontiers 2024.

30

Eshre GUIDELINES for surgical excision of DIE

- AS NO RCTs
- No use of EFI.
- Surgical risk.



31

DIE WITH PREVIOUS ART FAILURE then

Soriano et al 2016.

- 78 symptomatic patients,
- Mean 6.6 IVF ICSI failed cycles,
- 42.3% Live birth rates after radical surgery,
- 9% naturally
- 33.3% ivf.
- Median endometriosis fertlitity index 3.
-

Breteau et al 2020

. retrospective study
73 women
2 and more IVF ICSI cycles
Biochemical Pregnancy rate 43.8%
21.8% Natural Conception
71.7% ART
3.1% IUI

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CONSELLING AFTER SURGERY

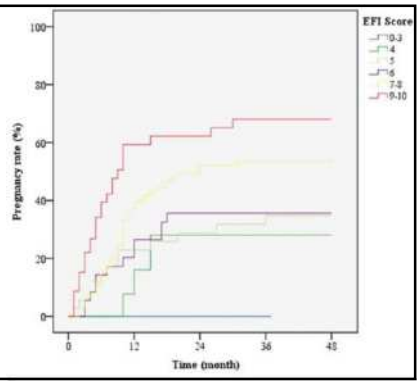
- EFI
- HISTORICAL FACTORS.(5 Points)
- SURGICAL FACTORS. (5 Points)
- ADENEXAL FUNCTION. (3 points.)
- EXTENT OF ENDOMETRIOIS (2 points.)

- Total = 10 points

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EFI

- 7 – 10 SCORE = 12 months non ART treatment
- 5 – 6 SCORE = 6 months non ART TREATMENT .
- ‘
- 0 – 4 = LOW EFI SCORE = DIRECT TO ART .



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THANK YOU .....

35



Francisco (Paco) Carmona

Hospital Clínic, Barcelona
Director of Endometriosis Unit
Director of the Uterine Transplant Program

University of Barcelona
Professor Faculty of Medicine

S.E.E.M.E.
Past President

S.E.U.D.
Past President

1

Uterus Transplantation: From Surgical Innovation to Reproductive Choice

Disclosures

Gedeon Richter
Medtronic
Merck
Theramex
Cinfa

2

Uterus Transplantation: From Surgical Innovation to Reproductive Choice

Disclosures

Gedeon Richter
Medtronic
Merck
Theramex
Cinfa

Learning Objectives

- Describe the main selection criteria for uterus transplantation.
- Describe donor and recipient safety considerations and reproductive outcomes.
- Identify current and future challenges and the requirements for informed reproductive choice.

3

Absolute Uterine Factor Infertility

Unable to carry a pregnancy because the uterus is absent or cannot function.

- Congenital uterine absence (MRKH)
- Previous hysterectomy
- Non-functional uterus
  - *Adenomyosis*
  - *Asherman Syndrome*
  - *Fibroids*



UTx can offer the possibility to carry a pregnancy.

4

Surgical Innovation and Precision

2014: first live birth in Sweden

2020: first Barcelona transplant
Robotic donor surgery • Open implantation

- Preserve the vascular supply
- Use precise dissection and a trained team



Better visualization does guarantee fewer complications.

5

Recipient and Donor Selection

Recipient

- Absolute uterine factor infertility
- Fitness for surgery, immunosuppression and pregnancy
- IVF and embryo assessment
- Informed, voluntary decisión
- Age limits and donor relationships are protocol specific.

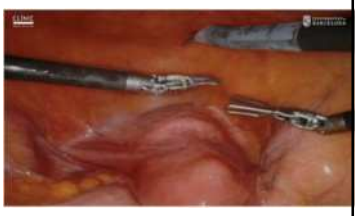


6

Recipient and Donor Selection

Living donor

- Suitable uterus and vessels
- Acceptable surgical risk
- Completed childbearing
- Independent counselling and voluntary consent



7

The Complete Treatment Pathway

1. IVF and embryo banking
Usually before transplantation

2. Transplantation and monitoring
Immunosuppression; perfusion, rejection and infection

3. Embryo transfer
Once the graft is stable

4. Pregnancy and cesarean delivery
Highly especializad obstetric care

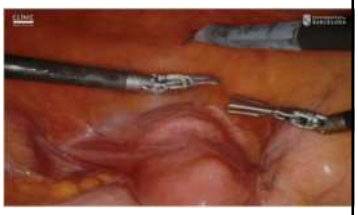
5. Graft removal
Stop immunosuppression when appropriate



8

Safety Throughout the Program

Stage	Main safety priorities
Surgery	Blood supply, venous drainage and donor morbidity
After UTx	Rejection, infection, drug toxicity and kidney function
Pregnancy	Hypertension, prematurity and especializad obstetric care



Transplant + reproductive + obstetric + psychological care

9

The Barcelona Experience

Three procedures

Case	Graft outcome	Outcome
First recipient	Viable pregnancy	One live birth
Second recipient	Viable pregnancy	Two live birth
Third recipient	Vascular thrombosis	No live birth



dd-cfDNA: exploratory in two recipients; does not replace biopsy.

10

International Registry Outcomes

ISUTx second report (2026) | 24 centres | Cut-off: 31 Dec 2024

Metric	Outcomes
Transplants, 2000–2024	91 (67 LD / 24 DD)
Graft survival at 12 months	74.7%
Recipients with ≥1 live birth	36
Total live births	44



Incomplete global coverage. Several major US programs are absent.

11

Dallas Outcomes Updated to 2026

Baylor Dallas (JAMA 2026) | UTx: 2016–Mar 2026 | Outcomes: Apr 2026

Metric	Outcomes
Transplants	44
Viable grafts at 1 month	37/44 (84.1%)
Recipients with ≥1 live birth	27
Live births	31
Ongoing pregnancies	4



Reporting-date outcomes; no final live-birth rate.

12

Reproductive Choice and Informed Consent

ORIGINAL RESEARCH ARTICLE

Attitudes toward uterus transplantation. An option for motherhood?

Mariona Rius[1] | Marta Camacho[2] | Neus Tomás[2] | Berta Díaz-Feijoo[2] | Camil Castelo-Branco[1] | Aina Borras[2] | Jaume Tort[2] | Francisco Carmona[1,2]*



25 of 35

MRKH respondents preferred UTx among the options presented.

Small selected sample; hypothetical choices.

13

Reproductive Choice and Informed Consent

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An informed choice requires

- Realistic expectations and risks
- Clear alternatives
- Emotional and practical support
- Freedom to accept or decline

Small selected sample; hypothetical choices.

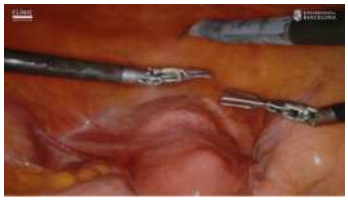
14

Deceased Donation and Access

ORIGINAL RESEARCH

Availability of deceased uterus donor: Is it a real case scenario in Spain?

Mariona Rius[1] | Marta Camacho[2] | Jaume Tort[2] | Antonio Alcaraz[3] | Berta Díaz-Feijoo[2] | David Pandes-Zapata[2,3] | Mortadi Gracia[2] | Francisco Carmona[1,2]*



Catalonia, 2015–2019

Retrospective OCATT review: 201 women

Donor criteria	Potential donors
Standard	**14**
Extended	**48**

Estimated eligibility over five years.

No uterus transplants assessed.

Deceased donation avoids surgery in a living donor. Broader criteria require clinical validation.

15

Current and Future Challenges in Uterus Transplantation



1. Reduce donor and recipient morbidity.

2. Prevent graft loss; improve rejection and toxicity monitoring.

3. Improve obstetric outcomes.

4. Extend follow-up of donors, recipients and children.

5. Improve access, funding and informed choice.

Emerging research: dd-cfDNA monitoring. Expand access through deceased donation.

16

References

1. Carmona F, et al. Uterine transplantation. First viable case in Southern Europe. Med Clin (Barc). 2021;156:297–300. DOI: 10.1016/j.medcli.2020.12.001

2. Díaz-Feijoo B, et al. Donor robotic-assisted laparoscopy for uterus transplantation. Fertil Steril. 2022;117:651–652. DOI: 10.1016/j.fertnstert.2021.11.026

3. Rius M, et al. Attitudes toward uterus transplantation. An option for motherhood? Acta Obstet Gynecol Scand. 2025;104:494–501. DOI: 10.1111/aogs.14849

4. Rius M, et al. Availability of deceased uterus donor: Is it a real case scenario in Spain? Acta Obstet Gynecol Scand. 2025;104:1869–1874. DOI: 10.1111/aogs.70020

5. Espinosa-Guardiola M, et al. Psychological Experiences and Processes in Uterus Donors and Recipients: A Case Study of the First Two Uterus Transplants Performed in Spain. Womens Reprod Health. 2026 Jun 8. Epub ahead of print. DOI: 10.1080/23293691.2026.2674863

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References

6. González-Roca E, et al. Exploring donor-derived cell-free DNA as a rejection biomarker during uterus transplant follow up. Commun Med (Lond). 2026;6:402. DOI: 10.1038/s43856-026-01602-w

7. Brännström M, et al. Livebirth after uterus transplantation. Lancet. 2015;385:607–616. DOI: 10.1016/S0140-6736(14)61728-1

8. Brännström M, et al. Second report of registry of the International Society of Uterus Transplantation (ISUTx): international activities 2000–2024. Hum Reprod. 2026;41:541–551. DOI: 10.1093/humrep/deag017

9. Testa G, et al. Uterus transplant in women with absolute uterine-factor infertility. JAMA. 2024;332:817–824. DOI: 10.1001/jama.2024.11679

10. Johannesson L, et al. Birth after uterus transplant. JAMA. 2026;335:1897–1899. DOI: 10.1001/jama.2026.7351

18

References

11. O'Neill KE, et al. Surgical, reproductive, and child developmental outcomes after 10 years of uterus transplantation in the United States. Obstet Gynecol. 2026 Sep 29. Epub ahead of print. DOI: 10.1097/AOG.0000000000006440

12. Wentz E, et al. Uterus transplantation; first data on neurologic, neuropsychiatric, and physical examination follow-up of children up to 6 years of age. Hum Reprod. 2025;40:2419–2429. DOI: 10.1093/humrep/deaf178

13. Brännström M, et al. The costs per live birth after uterus transplantation: results of the Swedish live donor trial. Hum Reprod. 2025;40:310–318. DOI: 10.1093/humrep/deae272

14. Ekberg J, et al. Long-term course of kidney function in uterus transplant recipients under treatment with tacrolimus and after transplantectomy: results of the first clinical cohort. Transplant Direct. 2023;9:e1525. DOI: 10.1097/TXD.0000000000001525

19

We no longer guess.
We can see.

ICG-Guided Surgery - the UK experience
Transforming gynaecological surgery with fluorescence imaging

MISS REBECCA MALLICK
CONSULTANT GYNAECOLOGIST, UHSUSSEX
BSGE PRESIDENT

1

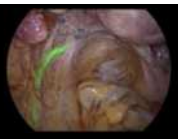


Easy to use

Potential to revolutionise surgical precision

Reduce complications

Improve patient care



2

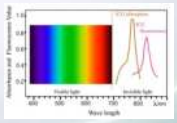
WHAT IS ICG?

Indocyanine green is a medical fluorescent dye used across a number of different medical specialties.

Developed and licensed for use by the FDA in the **1950s.**

When it is illuminated with near-infrared (NIR) light it emits a fluorescence

Detected using specialised imaging equipment



3

Allows real time visualization of vasculature and organs

Intravenous

Binds tightly to plasma proteins, mainly albumin

Half-life: **3–4 minutes**; metabolized – liver

95% remains plasma-bound, staying within the intravascular compartment with **minimal tissue absorption**

Direct instillation

Also binds to active mucosal cells – **excellent for bladder and ureters**

Long duration of action – can remain "visible" for 5 hrs plus

4

IS IT SAFE?

Excellent safety profile:

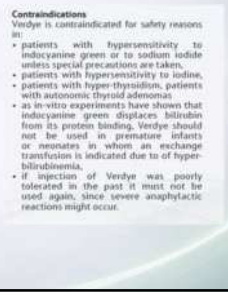
No deaths associated with ICG administration

Rare allergic reactions

Avoid iodine allergy

Caution liver dysfunction

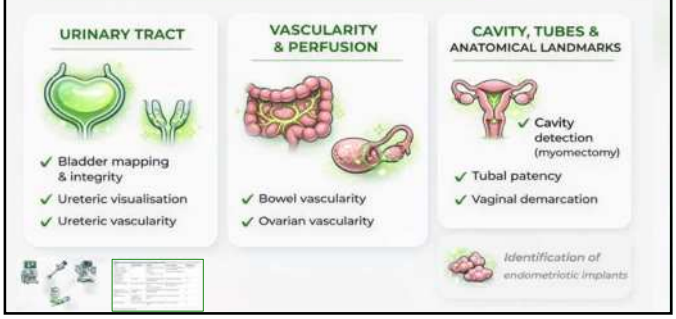
Dosing:
- Standard maximum dose: **5 mg/kg**
  - (1 vial Verdye = 25 mg)



Contraindications
Verdye is contraindicated for safety reasons in:
- patients with hypersensitivity to indocyanine green or to sodium iodide unless special precautions are taken,
- patients with hypersensitivity to iodine,
- patients with hyper-thyroidism, patients with autonomic thyroid adenomas
- as in-vitro experiments have shown that indocyanine green displaces bilirubin from its protein binding, Verdye should not be used in premature infants or neonates in whom an exchange transfusion is indicated due to of hyper-bilirubinemia,
- if injection of Verdye was poorly tolerated in the past it must not be used again, since severe anaphylactic reactions might occur.

5

USES OF ICG IN BENIGN GYNAECOLOGY



6

So where does this change practice?

Identification of ureters
Identification of bladder
Bowel perfusion assessment

Cavity identification myomectomy

7

70% of ureteric injuries are missed intra-operatively

8

Prophylactic ureteric stenting

Meta-Analysis

Prophylactic ureteric catheterisation during complex gynaecological surgery: A systematic review and meta-analysis

Ten studies were included: three RCTs and seven observational studies, comprising 8661 patients.

Prophylactic ureteric catheterisation or stenting for complex gynaecological surgery is not associated with a lower risk of ureteric injury.

9

ICG - OUR DATA

SHORT COMMUNICATION

Intra-ureteric indocyanine green for ureteric visualisation in complex benign gynaecological surgery: a prospective series of 50 cases

50 consecutive cases

100% visualisation

No ICG related complications

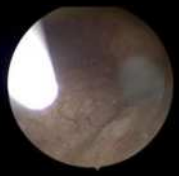
No ureteric injuries

Time cost – 170 secs

10

Cystoscopy + ureteric catheterisation





Technique: 22 or 25F rigid cystoscope and 6F ureteric catheters are used, with 5 mL of dilute ICG (25 mg in 10 mL sterile water) instilled 1–2 cm into the ureteric orifice.

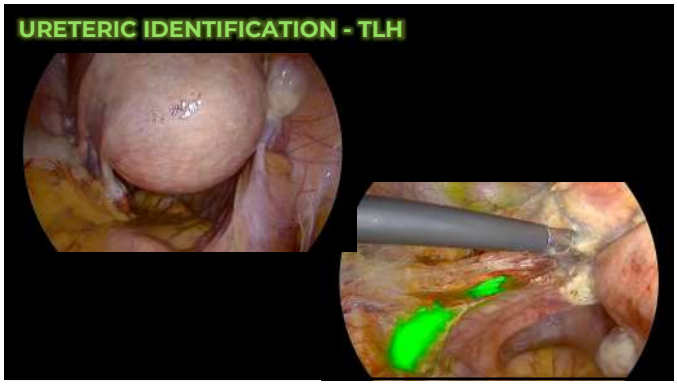
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URETERIC IDENTIFICATION - TLH





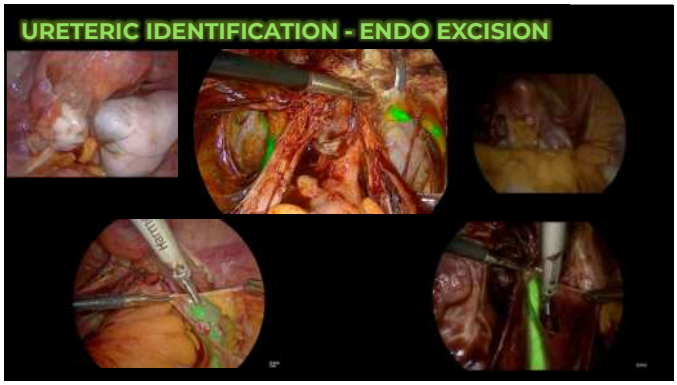
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15



16

The key benefits

- Reduce need for stents **cost savings**
- Improve efficiency
- Better safety

17

Up to 30% of bladder injuries are missed intraoperatively

Most common visceral injury in gynaecological surgery

ICG allows real-time bladder visualization, reducing the risk of undiagnosed injuries.

18

DEMARCATION OF BLADDER



Technique:
dilute 25 mg ICG in 200 mL sterile water; instill via urinary catheter



19

BOWEL SURGERY FOR DIE

Bowel surgery for DIE can be associated with significant morbidity - **bowel ischaemia and anastomotic leaks**

Evidence:
Liu et al., 2020:
Meta-analysis (>4,000 patients) showed **3.8% leak rate with ICG vs. 7.8% without** (OR 0.44; p < 0.00001)

Elmajdub et al., 2024: systematic review
45% reduction in anastomotic leaks

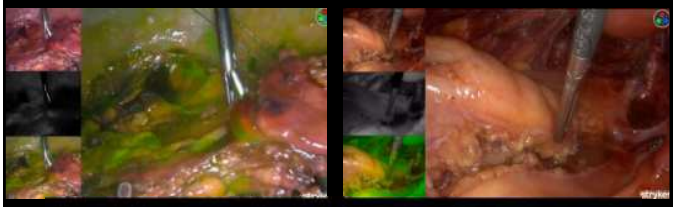
2026 – Lancet. Systematic review
Significant reduction in leak rates
Left sided resections, rectal resections and low anterior resections

Leak rate reduction:

7.8% vs 3.8%

20

BOWEL VASCULARITY – Anterior resection



Technique:
dilute 25 mg ICG in 10 mL sterile water; given IV 2-3ml boluses

21

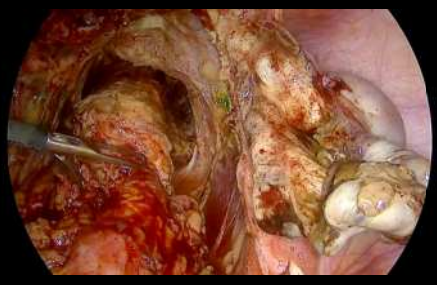
BOWEL VASCULARITY – Anterior resection



Technique:
dilute 25 mg ICG in 10 mL sterile water; given IV 2-3ml boluses

22

BOWEL VASCULARITY – Shave



Technique:
dilute 25 mg ICG in 10 mL sterile water; given IV 2-3ml boluses

23

ASSESSMENT OF UTERINE CAVITY

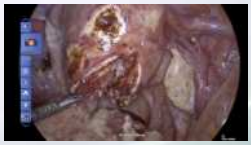
Safeguarding the endometrial cavity

ICG instillation into the uterine cavity may help:
Prevent cavity breaches during myomectomy
Identify and repair small endometrial defects

Technique: *ICG injected through cervix using uterine manipulator*

Video courtesy of Miss Flo Britton and Mr Shaheen Khazali





24

ASSESSMENT OF UTERINE CAVITY



Technique:
dilute 25 mg ICG in 30-40 mL sterile water; given through cervix using manipulator

25

Dye test



DELINEATION OF VAGINAL WALL MUCOSA



Aid colpotomy



Ovarian vascularity



URETERIC VASCULARITY - Limited data, but may enable detection of ureteric devascularization and aid decision making process around stenting

ASSESSMENT OF ENDOMETRIOTIC LESIONS - Limited data, but overall no superiority over white light in diagnostic accuracy

26

We no longer guess. We can see.

Versatile and safe
Enhances visualisation of vascular supply and anatomical landmarks especially in complex endometriosis surgery

Smarter surgery
- ⬆️ Precision and efficiency in surgery
- ⬇️ Operative complications

Better patient outcomes

What next?
- *Large-scale randomised controlled trials*
- *Cost-benefit analyses*
- *Development of standardized guidance*

27

Thank you for your attention



28

AAGL26

Complex Decision-Making in Renal Endometriosis

Mr. Fevzi Shakir

MBBS BSc(Hons) FRCOG MSc (Advanced Gynaecological Endoscopic Surgery)

Gynaecology Clinical Director - Royal Free Hospitals Group

Vice President - British Society For Gynaecological Endoscopy (BSGE)

Medical Advisor/Trustee to Endometriosis UK

NOVEMBER 13-16, 2026 · BOSTON · #AAGL26

1

Disclosure

- I consult and are part of the Faculty for the following companies: Olympus, Arthrex, Theramex, and Medtronic. For some activity I receive renunciation as well as travel and accommodation.

2

Endometriosis and Ureteric involvement

Endometriosis affects 10% women in UK (worldwide 5-20%).

0.4% of genitourinary endometriosis can significantly affect ureters. Extrinsic 4 times more than intrinsic disease.

Usually present with bowel disease.

Risk of renal failure if left untreated – 25-50%.

Palla et al. Indian J Urol. 2017 Oct-Dec; 33(4): 276–282. Ureteral endometriosis: A systematic literature review.

American Society for Reproductive Medicine. Revised American Society for Reproductive Medicine classification of endometriosis: 1996. Fertil Steril. 1997;67:817–21.

Abrao MS, Dias JA, Jr, Bellelis P, Podgaec S, Bautzer CR, Gromatsky C, et al. Endometriosis of the ureter and bladder are not associated diseases. Fertil Steril. 2009;91:1662–7.

3

Symptoms/Signs

Flank pain

UTI

Haematuria

But could be Silent!

Creatinine - not always useful – (Zhang et al, 2026 – 7/8 patients normal U&E)

48.3% - Ureteric endometriosis - significant hydroureter/hydronephrosis – most did not have symptoms (Cavaco-Gomes et al,2017).

4

Endometriosis 'Killed My Kidney,' Says Patient



5



6

MDT Management of Organ Threatening Endometriosis with Renal Loss

7





8



9

Re-Implantation

Individualised decision making.

Consider renal function – DTPA/MAG 3 ~ 10%

Extended area of narrowing ~ > 1cm of intrinsic disease

Poor drainage despite ureterolysis

Good outcome – re intervention rate 3%.

10

MDT Follow up

Combined with urology, renal medicine and gynaecologist.

Establish new baseline – manage complications – Hypertension etc.

Monitor for recurrence.

Ideally eGFR > 60 and stable.

Periodic imaging.

11

Summary

Renal damage should be considered in suspected cases.

Renal USS/CT urogram/MRI/MAG3.

Suspect in unilateral Hydronephrosis/History of severe disease.

MDT involvement early

F/U: USS 6-12 weeks establish new baseline, bloods, further imaging if required.

12

Toward Zero Urologic Complication in laparoscopic hysterectomy

Mohamed ACHOUR, MD

African Centre for Endometriosis and MIGS (ACE MIGS) /MAMIGS

Agadir / MOROCCO

NOVEMBER 13-16, 2026 · BOSTON · #AAGL26

1

Disclosure

"I have no financial relationships to disclose."

2

Objectives

- Demonstrate that urologic complications could be preventable rather than inevitable?
- Illustrate that Urologic safety is not a single maneuver but It is the result of systematic standarized strategy based on anatomy, exposure, dissection, protection of the urologic tract from energy before sealing or dividing and verification
- **Zero is not a number. Zero is a surgical strategy**

3



4

Toward zero is a surgical safe strategy

- **Know the anatomy**
  ↓
  Expose the anatomy
  ↓
  Dissect in the right plane
  ↓
  Use energy deliberately
  ↓
  Verify before you finish



5



6

CULTURAL AND LINGUISTIC COMPETENCY & IMPLICIT BIAS

The California Medical Association (CMA) outlines standards for Cultural Linguistic Competency and Implicit Bias in CME. The goal of the standards is to support the role of accredited CME in advancing diversity, health equity, and inclusion in healthcare. These standards are relevant to ACCME-accredited, CMA-accredited, and jointly accredited providers located in California. AAGL is ACCME-accredited and headquartered in California.

CMA developed the standards in response to California legislation (Business and Professions (B&P) Code Section 2190.1), which directs CMA to draft a set of standards for the inclusion of cultural and linguistic competency (CLC) and implicit bias (IB) in accredited CME.

The standards are intended to support CME providers in meeting the expectations of the legislation. CME provider organizations physically located in California and accredited by CMA CME or ACCME, as well as jointly accredited providers whose target audience includes physicians, are expected to meet these expectations which began on January 1, 2022. AAGL has been proactively adopting processes that meet and often exceed the required expectations of the legislation.

CMA CME offers a variety of resources and tools to help providers meet the standards and successfully incorporate CLC & IB into their CME activities, including FAQ, definitions, a planning worksheet, and best practices. These resources are available on the CLC and IB standards page on the CMA website.

Important Definitions:

Cultural and Linguistic Competency (CLC) – The ability and readiness of health care providers and organizations to humbly and respectfully demonstrate, effectively communicate, and tailor delivery of care to patients with diverse values, beliefs, identities and behaviors, in order to meet social, cultural and linguistic needs as they relate to patient health.

Implicit Bias (IB) – The attitudes, stereotypes and feelings, either positive or negative, that affect our understanding, actions and decisions without conscious knowledge or control. Implicit bias is a universal phenomenon. When negative, implicit bias often contributes to unequal treatment and disparities in diagnosis, treatment decisions, levels of care and health care outcomes of people based on race, ethnicity, gender identity, sexual orientation, age, disability and other characteristics.

Diversity – Having many different forms, types or ideas; showing variety. Demographic diversity can mean a group composed of people of different genders, races/ethnicities, cultures, religions, physical abilities, sexual orientations or preferences, ages, etc.

Direct links to AB1195 (CLC), AB241 (IB), and the B&P Code 2190.1:

Bill Text – AB-1195 Continuing education: cultural and linguistic competency.
Bill Text – AB-241 Implicit bias: continuing education: requirements.
Business and Professions (B&P) Code Section 2190.1

CLC & IB Online Resources:

Diversity-Wheel-as-used-at-Johns-Hopkins-University-12.png (850×839) (researchgate.net)
Implicit Bias, Microaggressions, and Stereotypes Resources | NEA
Act, Communicating, Implicit Bias (racialequitytools.org)
https://www.contemporaryobgyn.net/view/overcoming-racism-and-unconscious-bias-in-ob-gyn
https://pubmed.ncbi.nlm.nih.gov/34016820/
https://hr.ucdavis.edu/departments/learning/certificate/implicit-bias
https://pmc.ncbi.nlm.nih.gov/articles/PMC7011228/