

Cancer du Col Utérin

Que reste-t-il de la coelioscopie ?

MARIE GOSSET

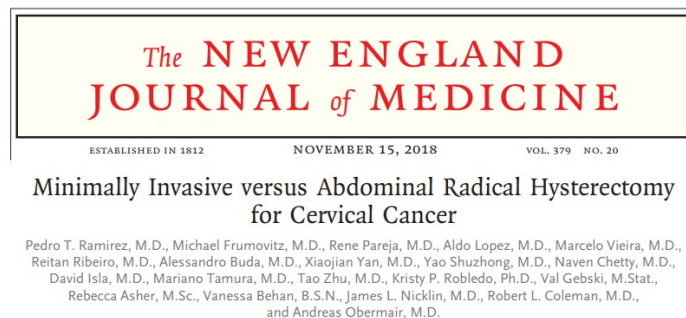
MARIE.GOSSET@NICE.UNICANCER.FR

DÉPARTEMENT DE CHIRURGIE ONCOLOGIQUE GYNÉCOLOGIQUE ET SÉNOLOGIQUE

Reste-t-il encore une place pour la voie coelioscopique ?

HYSTÉRECTOMIE

LACC trial - 2018



Essai randomisé

- 312 laparotomies
- 319 laparoscopies



Voie coelioscopique = perte de chance

- DFS : HR 3,74 (IC 1,63 – 8,58)
- OS : HR 6 (IC 1,77-20,3)
- Récidive locorégionale : HR 4,26 (IC 1,44 – 12,6)

Pourquoi ?



Pourquoi ?

Observational Study > [Int J Gynecol Cancer](#). 2020 Sep;30(9):1269-1277.

doi: 10.1136/ijgc-2020-001506. Epub 2020 Aug 11.

SUCCOR study: an international European cohort observational study comparing minimally invasive surgery versus open abdominal radical hysterectomy in patients with stage IB1 cervical cancer

Luis Chiva ¹, Vanna Zanagnolo ², Denis Querleu ³, Nerea Martin-Calvo ⁴, Juan Arévalo-Serrano ⁵,

639 patientes – CJ = RFS

Confirme les conclusions du LACC trial :

Chirurgie mini-invasive = perte de chance

Risque de récurrence x 2 (HR, 2.07; 95% CI, 1.35 to 3.15; P=0.001)

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Utilisation d'un manipulateur utérin :

Risque de récurrence x 2 (HR, 2.76; 95% CI, 1.75 to 4.33; P<0.001)

Sans manipulateur : DFS idem laparo
(HR, 1.58; 95% CI, 0.79 to 3.15; P=0.20).

Fermeture vaginale : DFS idem laparo
(HR, 0.63; 95% CI, 0.15 to 2.59; P<0.52)



Pourquoi ?



Gynecologic Oncology

Volume 165, Issue 2, May 2022, Pages 293-301



Etude ancillaire

251 patientes – CJ = RFS

Surgical skill and oncological
outcome of laparoscopic
radical hysterectomy:
JGOG1081s-A1, an ancillary
analysis of the Japanese
Gynecologic Oncology Group
Study JGOG1081

Eiji Kobayashi ^a  , Eiji Nakatani ^b, Tomohito Tanaka ^c,

Pourquoi ?



Gynecologic Oncology

Volume 165, Issue 2, May 2022, Pages 293-301



Surgical skill and oncological outcome of laparoscopic radical hysterectomy: JGOG1081s-A1, an ancillary analysis of the Japanese Gynecologic Oncology Group Study JGOG1081

Eiji Kobayashi ^a , Eiji Nakatani ^b , Tomohito Tanaka ^c

Etude ancillaire

251 patientes – CJ = RFS

Facteurs pronostics identifiés :

- Expérience du Centre < 20 cas / (HR) 2.49, 95%CI 1.12–5.53, $p = 0.025$)
- Fermeture vaginale en début de procédure
- Extraction vaginale protégée des ganglions

FIGO 2018

I : Confined to the cervix

IA: Invasive carcinoma with maximum depth of invasion $\leq 5\text{mm}$

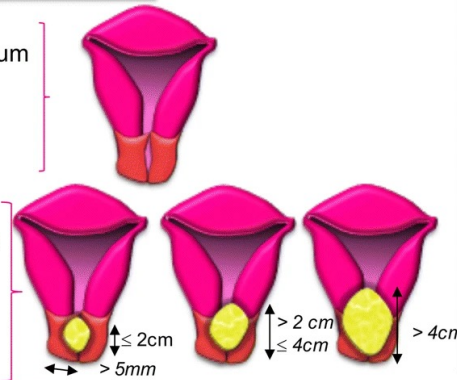
Not visible on MRI

IB: Invasive carcinoma with measured deepest invasion $> 5\text{mm}$

IB1: $\leq 2\text{cm}$

IB2: $> 2\text{cm}$ and $\leq 4\text{cm}$

IB3: $> 4\text{cm}$



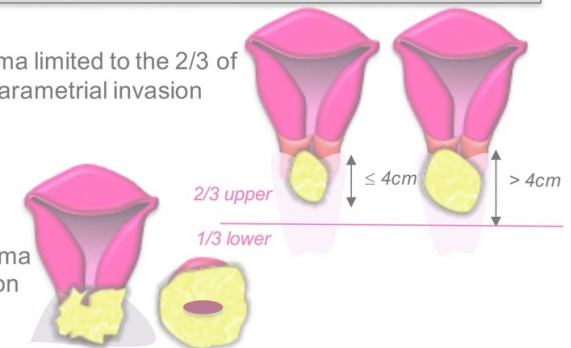
II : Invasion beyond the uterus, but not extended to the lower third of the vagina or pelvic wall

IIA: Invasive carcinoma limited to the 2/3 of the vaginal without parametrial invasion

IIA1: $\leq 4\text{cm}$

IIA2: $> 4\text{cm}$

IIIB: Invasive carcinoma + parametrial invasion

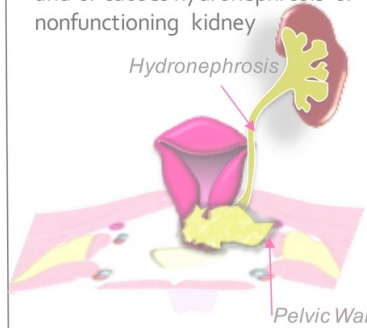


III: Invasion of the lower 1/3 of the vagina/hydronephrosis/ nonfunctioning kidney / pelvic wall / pelvic-para-aortic nodes

IIIA: Lower 1/3 of the vagina, with no extension to the pelvic wall



IIIB: Extension to the pelvic wall and/or causes hydronephrosis or nonfunctioning kidney



IIIC: Involvement of pelvic and/or para-aortic lymph nodes

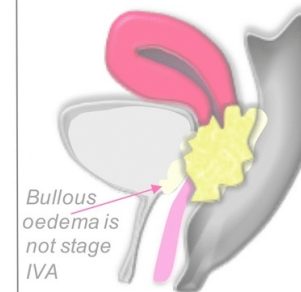
IIIC1: Pelvic node metastasis only

IIIC2: Para-aortic nodes metastasis

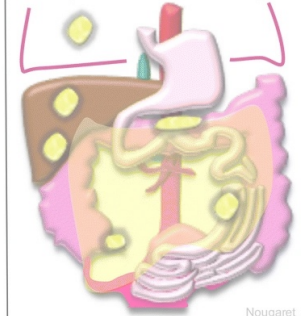


IV: Extension beyond the true pelvis or has involved (biopsy proven) the mucosa of the bladder or rectum.

IVA: Spread to adjacent organs



IVB: Spread to distant organs



Nougaret

LACC trial – 2018 : *Oui mais...*



Minimally Invasive versus Abdominal Radical Hysterectomy for Cervical Cancer

Pedro T. Ramirez, M.D., Michael Frumovitz, M.D., Rene Pareja, M.D., Aldo Lopez, M.D., Marcelo Vieira, M.D., Reitan Ribeiro, M.D., Alessandro Buda, M.D., Xiaojian Yan, M.D., Yao Shuzhong, M.D., Naven Chetty, M.D., David Isla, M.D., Mariano Tamura, M.D., Tao Zhu, M.D., Kristy P. Robledo, Ph.D., Val Gebski, M.Stat., Rebecca Asher, M.Sc., Vanessa Behan, B.S.N., James L. Nicklin, M.D., Robert L. Coleman, M.D., and Andreas Obermair, M.D.

Essai randomisé

- 312 laparotomies
- 319 laparoscopies

90% stades IB1 - ancienne classification
Puissance insuffisante pour les < 2cm
Suivi médian 2,5 ans



Voie coelioscopique = perte de chance

- DFS : HR 3,74 (IC 1,63 – 8,58)
- OS : HR 6 (IC 1,77-20,3)
- Récidive locorégionale : HR 4,26 (IC 1,44 – 12,6)

Oui mais...



Contents lists available at [ScienceDirect](http://ScienceDirect.com)

European Journal of Surgical Oncology

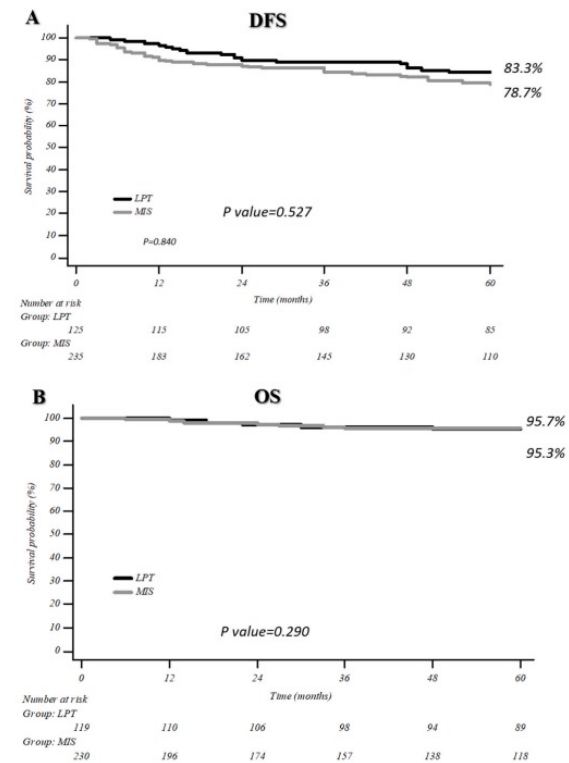
journal homepage: www.ejso.com



Patterns of recurrence in FIGO stage IB1-IB2 cervical cancer: Comparison between minimally invasive and abdominal radical hysterectomy

Giacomo Corrado^{a,*}, Luigi Pedone Anchorà^a, Simone Bruni^b, Isabella Sperduti^c, Camilla Certelli^a, Benito Chiofalo^b, Andrea Giannini^b, Ottavia D'Oria^d, Nicolò Bizzarri^a, Francesco Legge^e, Francesco Cosentino^f, Luigi Carlo Turco^f, Enrico Vizza^b, Giovanni Scambia^g, Gabriella Ferrandina^g

360 patientes
Rétrospectif





ESGO/ESTRO/ESP Guidelines for the management of patients with cervical cancer – Update 2023*

David Cibula,^{1,2} Maria Rosaria Raspollini,³ François Planchamp ,⁴ Carlos Centeno,⁵ Cyrus Chagari ,⁶ Ana Felix,^{7,8} Daniela Fischerová ,^{1,2} Daniela Jahnn-Kuch,⁹ Florence Joly,¹⁰ Christhardt Kohler,^{11,12} Sigurd Lax,^{13,14} Domenica Lorusso,^{15,16} Umesh Mahantshetty,¹⁷ Patrice Mathevet,¹⁸ Raj Naik,¹⁹ Remi A Nout,^{20,21} Ana Oaknin ,^{22,23} Fedro Peccatori,²⁴ Jan Persson,^{25,26} Denis Querleu ,^{15,27} Sandra Rubio Bernabé ,²⁸ Maximilian P Schmid,²⁹ Artem Stepanyan ,³⁰ Valentyn Svintsitskiy,³¹ Karl Tamussino,³² Ignacio Zapardiel ,³³ Jacob Lindegaard³⁴

Minimally invasive approach may be considered only in

- low risk tumors (<2 cm and free margins after conization)
- high-volume centers experienced in performing radical hysterectomy with minimally invasive surgery

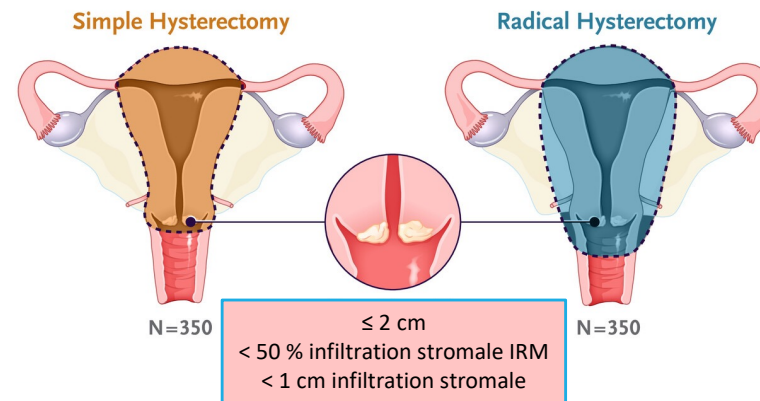
Essai SHAPE

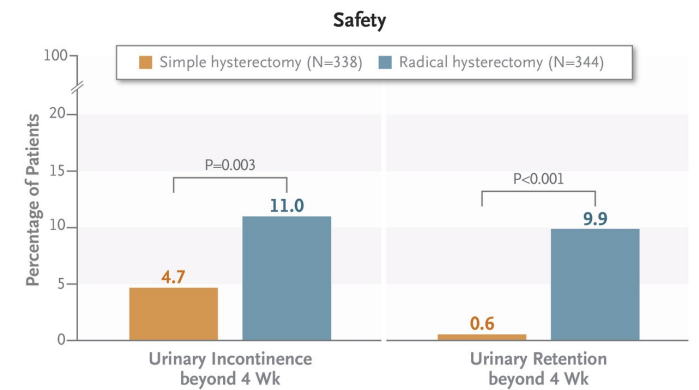
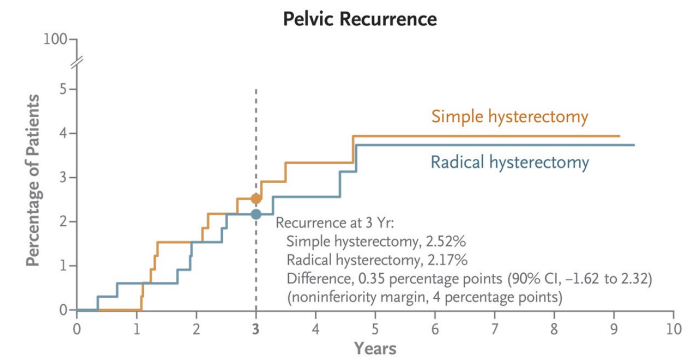
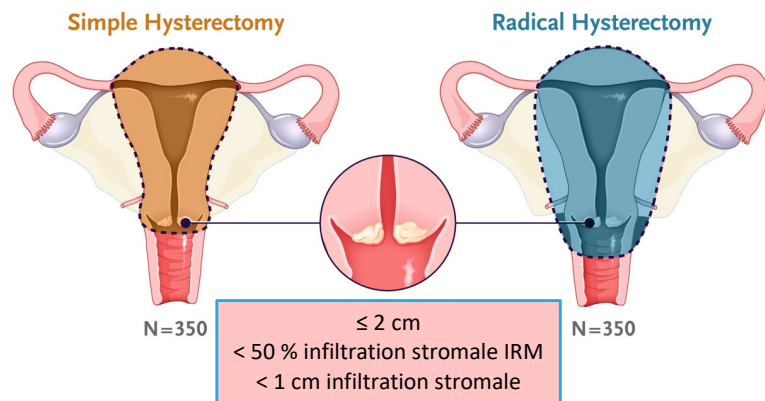
The NEW ENGLAND JOURNAL of MEDICINE 2024

RESEARCH SUMMARY

Simple versus Radical Hysterectomy in Women with Low-Risk Cervical Cancer

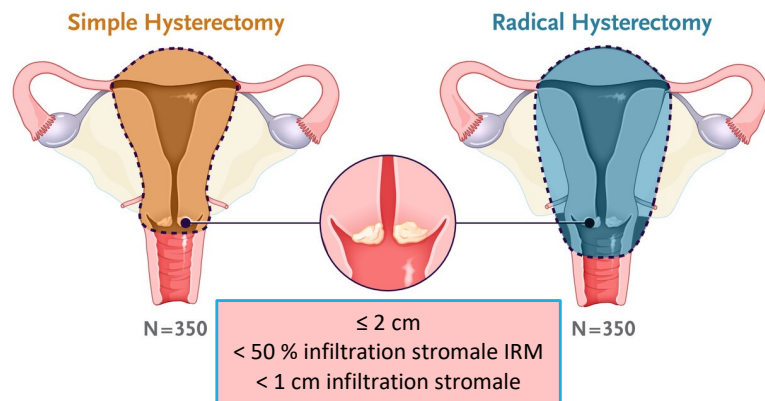
Plante M et al. DOI: 10.1056/NEJMoa2308900



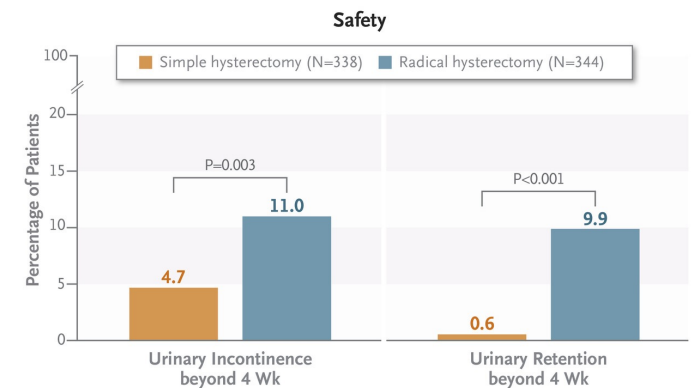
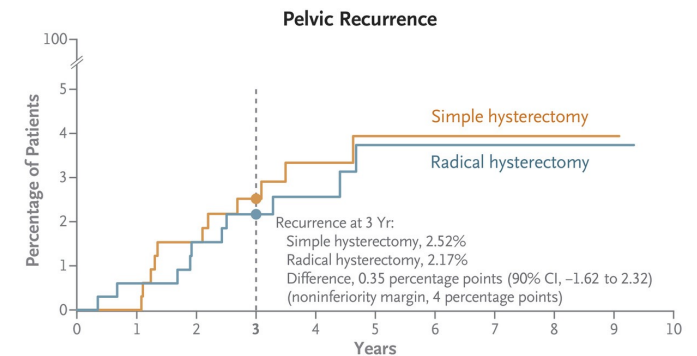


CONCLUSIONS

In patients with low-risk, early-stage cervical cancer, simple hysterectomy was noninferior to radical hysterectomy with respect to pelvic recurrence at 3 years and was associated with fewer urologic complications.

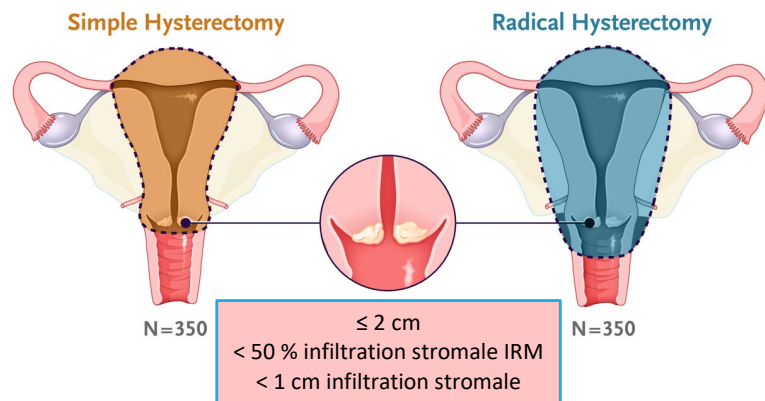


- 70% des patientes avaient eu une conisation pré opératoire
- 46% n'avaient pas de reliquat tumoral sur la pièce d'hystérectomie
- Seulement 1,7% d'envahissement paramétrial

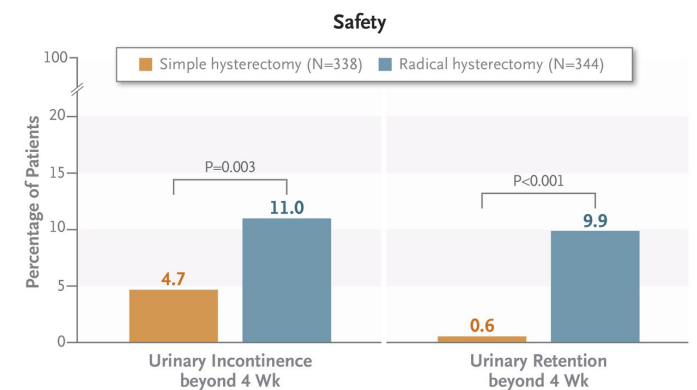
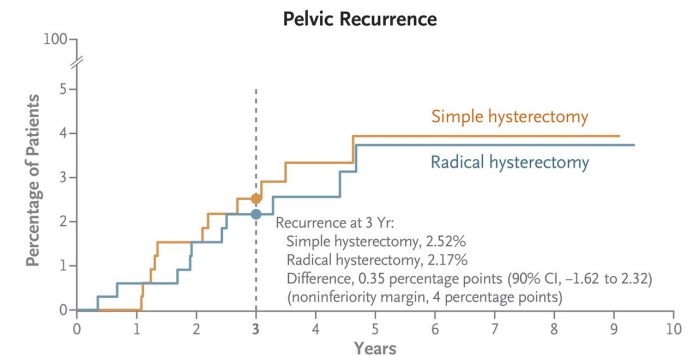


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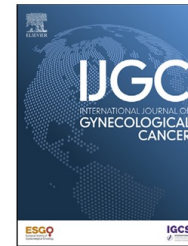
	HT simple	HT élargie	
Laparotomie	16,9%	28,8%	
Coelioscopie	55,6%	44,2%	
Coelio robot assistée	24,3%	25,3%	→ pas de différence en SRR



CONCLUSIONS

In patients with low-risk, early-stage cervical cancer, simple hysterectomy was noninferior to radical hysterectomy with respect to pelvic recurrence at 3 years and was associated with fewer urologic complications.

Minimally invasive compared to open surgery in patients with low-risk cervical cancer following simple hysterectomy: An exploratory analysis from the Gynecologic Cancer Intergroup/Canadian Cancer Trials Group CX.5/SHAPE trial

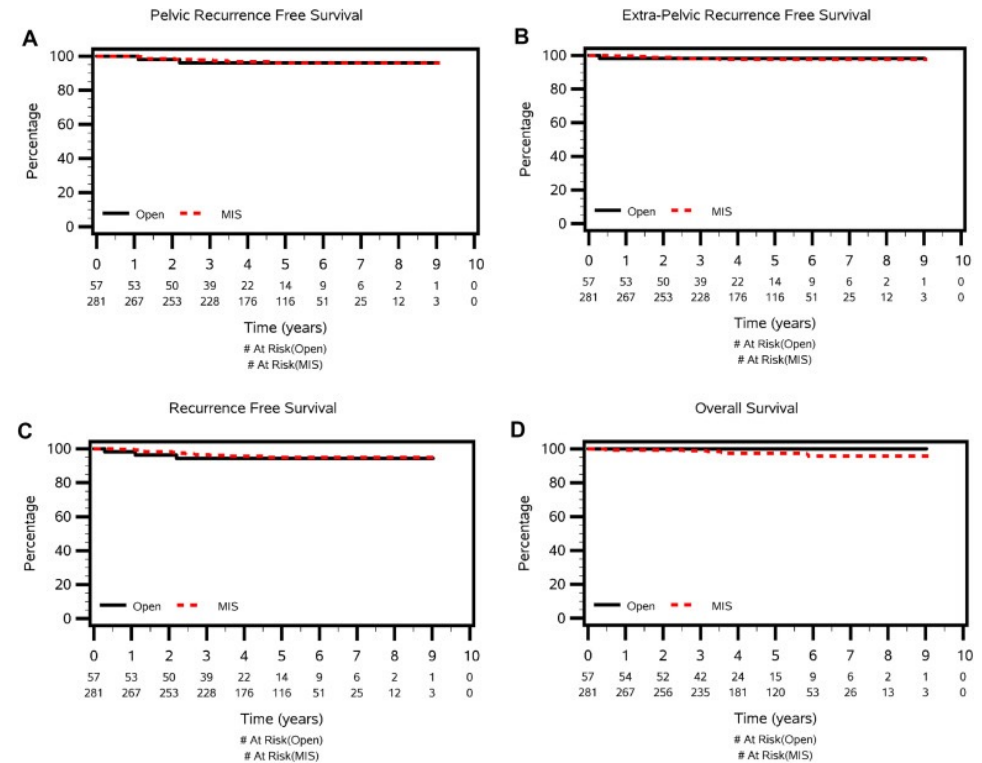


Marie Plante^{a,*}, Sven Mahner^b, Alexandra Sebastianelli^c, Paul Bessette^d, Eric Lambaudie^e,

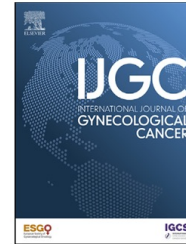
≤ 2 cm
< 50 % infiltration stromale IRM
< 1 cm infiltration stromale

338 patientes – hystérectomies simples

281 (83%) : coelioscopie
57 (17%) : laparotomie



Minimally invasive compared to open surgery in patients with low-risk cervical cancer following simple hysterectomy: An exploratory analysis from the Gynecologic Cancer Intergroup/Canadian Cancer Trials Group CX.5/SHAPE trial



Marie Plante^{a,*}, Sven Mahner^b, Alexandra Sebastianelli^c, Paul Bessette^d, Eric Lambaudie^e,

Prudence :

- 96% des patientes n'ont jamais récidivé
- 6 des 7 récidives extra pelviennes dans le groupe MIS
- Les 4 patientes décédées de l'étude étaient dans le groupe MIS
- Non randomisé – technique laissée à l'appréciation du chirurgien

LACC Trial: Final Analysis on Overall Survival Comparing Open Versus Minimally Invasive Radical Hysterectomy for Early-Stage Cervical Cancer

Pedro T. Ramirez, MD¹ ; Kristy P. Robledo, PhD² ; Michael Frumovitz, MD³ ; Rene Pareja, MD^{4,5} ; Reitan Ribeiro, MD⁶; Aldo Lopez, MD⁷; Xiaojian Yan, MD⁸; David Isla, MD⁹; Renato Moretti, MD¹⁰ ; Marcus Q. Bernardini, MD¹¹; Val Gebiski, MStat² ; Rebecca Asher, MSc²; Vanessa Behan, BSN¹²; Robert L. Coleman, MD¹³ ; and Andreas Obermair, MD¹²

DOI <https://doi.org/10.1200/JCO.23.02335>

Résultats à 4,5 ans

Mai 2024

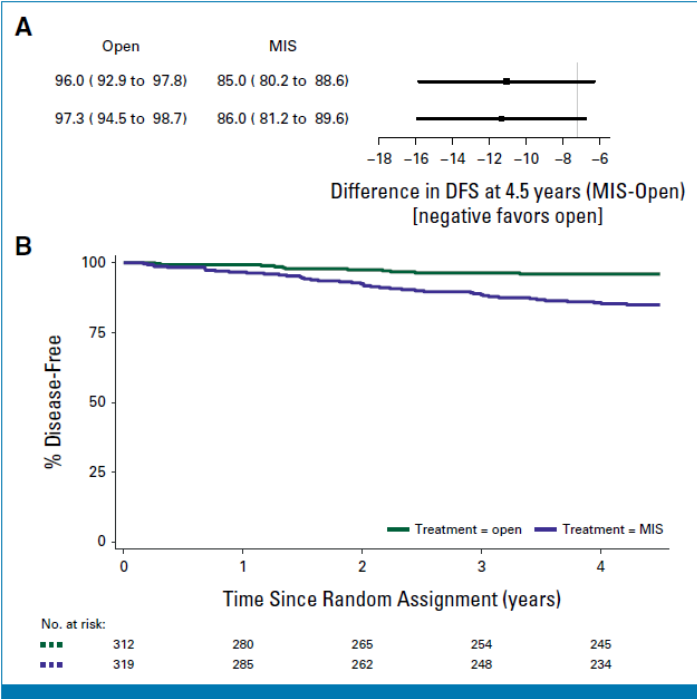


FIG 1. (A) Forest plot of the DFS at 4.5 years with boundaries of noninferiority. Minimally invasive surgery denotes both laparoscopic and robotic-assisted radical hysterectomy. The gray

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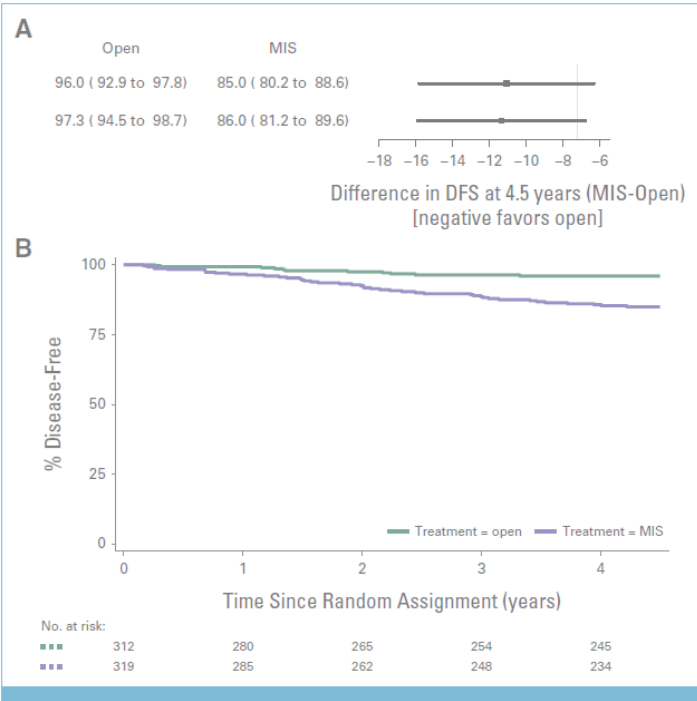
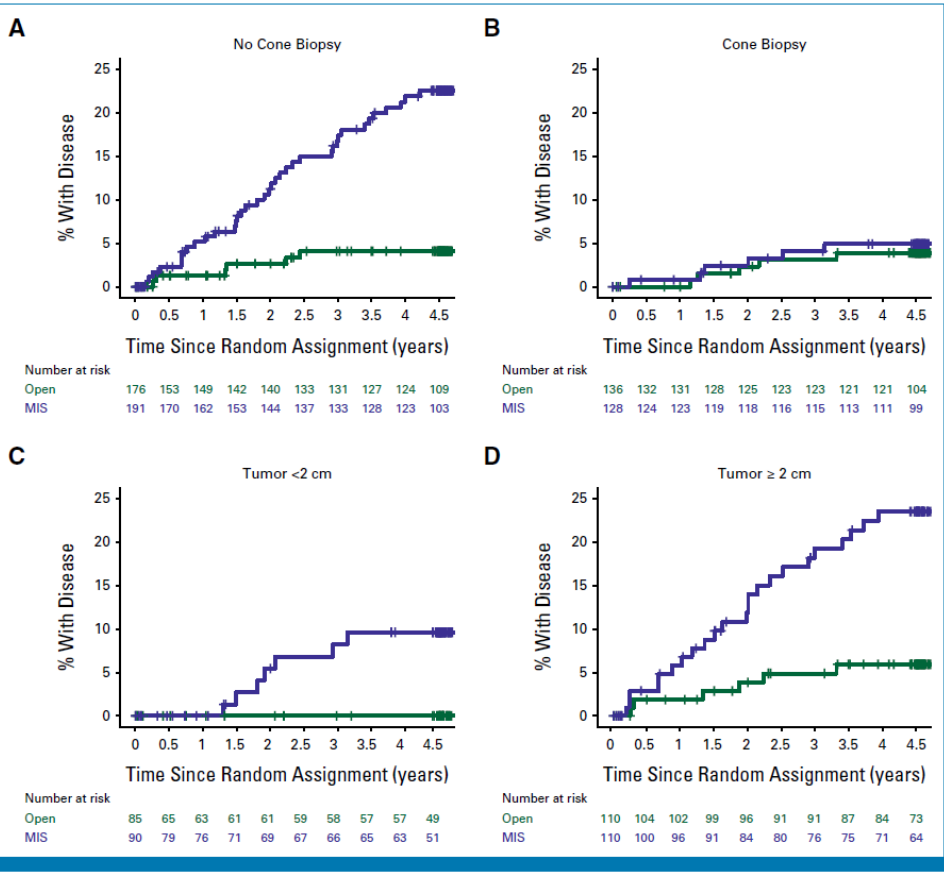


FIG 1. (A) Forest plot of the DFS at 4.5 years with boundaries of noninferiority. Minimally invasive surgery denotes both laparoscopic and robotic-assisted radical hysterectomy. The gray



Manœuvres
de sécurité*

Absence de manipulateur, fermeture vaginale, extraction protégée,
conisation < 2 cm, curie si > 2 cm

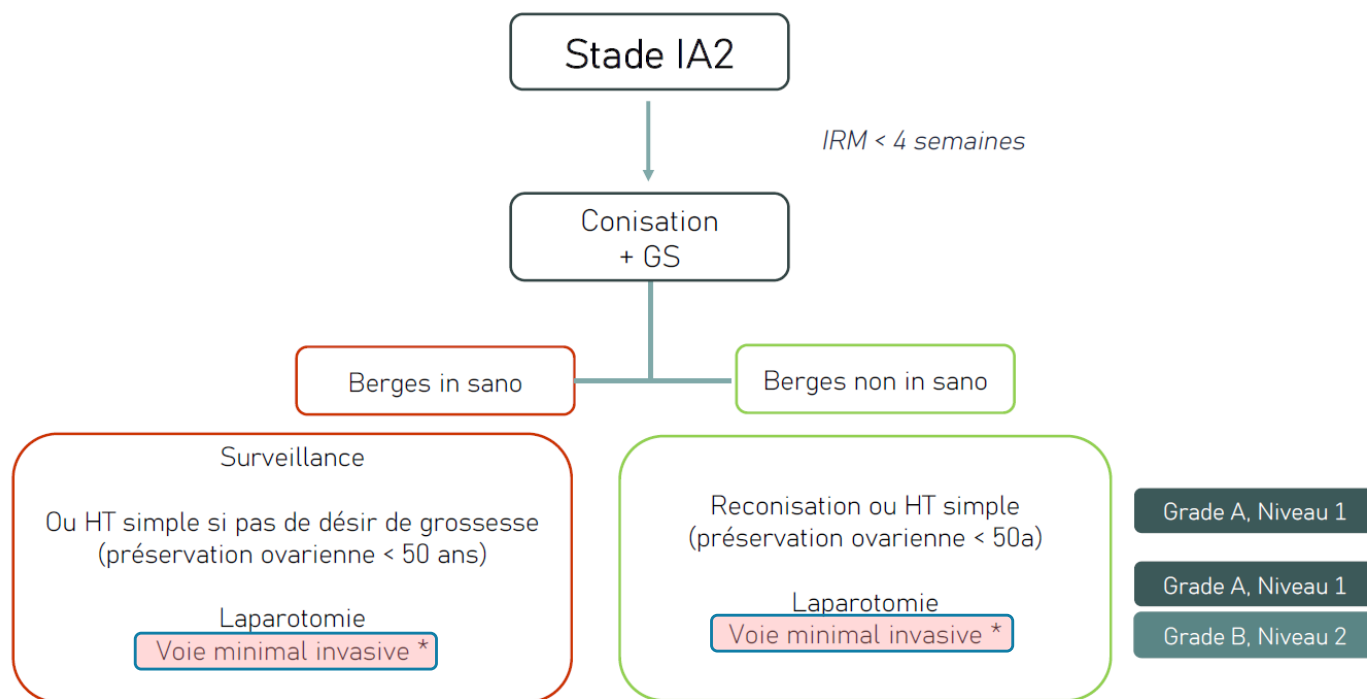
Bas risque

N-
Critères SHAPE + : ≤ 2 cm
 < 50 % infiltration stromale IRM
 < 1 cm infiltration stromale

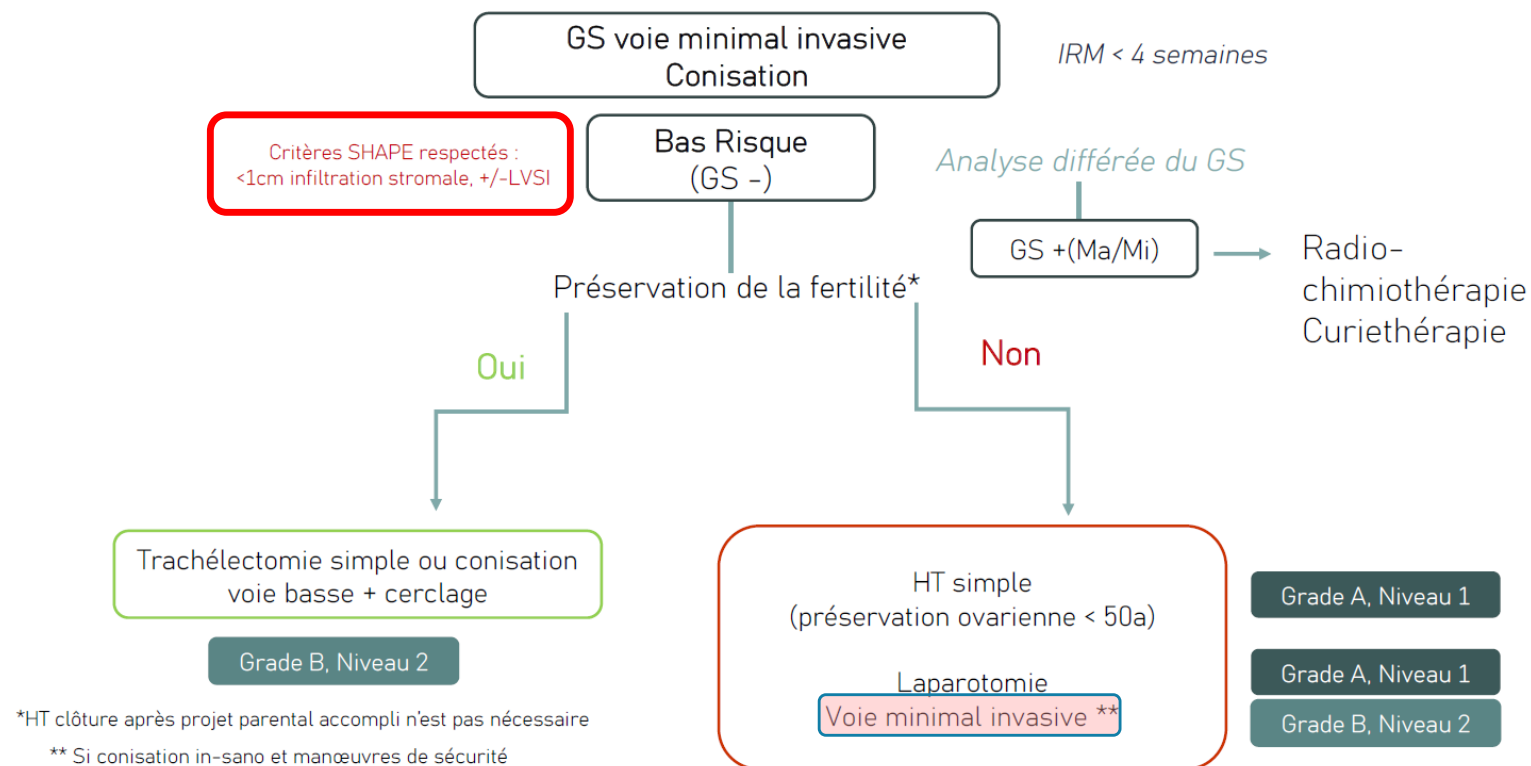
Risque
intermédiaire

N-
Critères SHAPE - : > 2 cm
 ≥ 50 % infiltration stromale IRM
 ≥ 1 cm infiltration stromale

* Si chirurgie mini-invasive



* Si manœuvres de sécurité



Reste-t-il encore une place pour la voie coelioscopique ?

STADIFICATION GANGLIONNAIRE

Stades localisés



Stades localisés

Procédure du ganglion sentinelle

- Indication
 - Stade IA1 si emboles
 - Stade IA2 → IB2 (nouvelle FIGO)
- Recommandations NCCN depuis 2015

Procédure du ganglion sentinelle

- SENTICOL I - 2011

Faisabilité

145 patientes - ZERO faux négatifs

- SENTICOL II - 2021

Morbidité

206 patientes

- SENTICOL III – résultats attendus

Equivalence de la procédure en termes de survie sans récidence

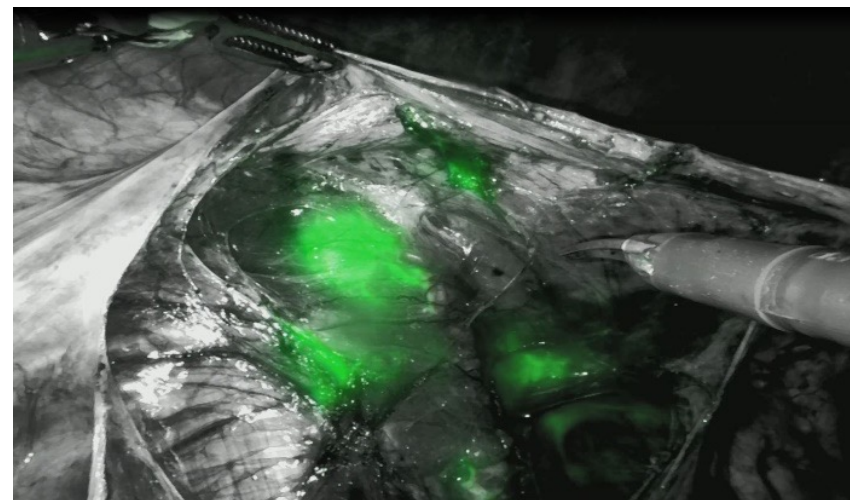
Supériorité en termes de qualité de vie



Procédure du ganglion sentinelle

2025

- Curage pelvien si échec de détection
- Equipes entraînées > 15 procédures / an
- Détection à l'ICG



Procédure du ganglion sentinelle

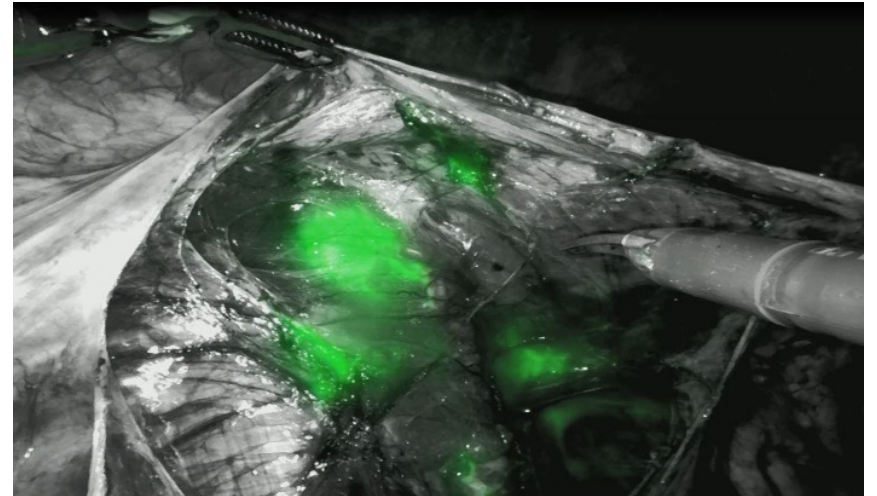
Question du timing :

Examen extemporané ? / En 2 temps ?

- *Ultra-stadification ?*
- *Mais stade FIGO basé uniquement sur le statut micro/macrométastase*

Cellules tumorales isolées : impact inconnu

→ Ok analyse extemporanée

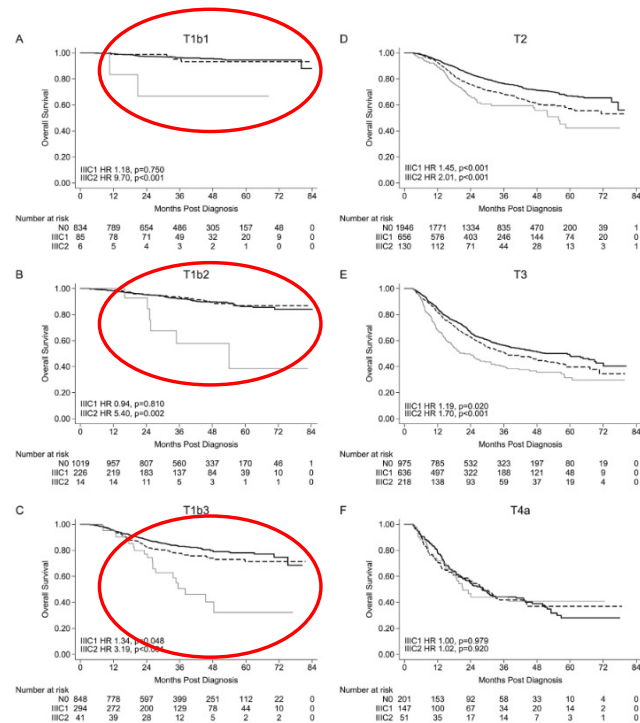


Stades avancés



Stades localement avancés

Envahissement ganglionnaire lombo-aortique = facteur pronostic majeur



NCDB 2004-2015 : 17173 patientes

IIC1 (ganglions pelviens) :

HR $\approx$ 1,4 / Survie 5 ans $\approx$ 62 %

IIC2 (ganglions para-aortiques) :

HR $\approx$ 2,1 / Survie 5 ans $\approx$ 39 %

K. Mc Comas et al, Gynecologic Oncology 2020

Performance du TEP TDM 18FDG

Table 1 Accuracy of positron emission tomography/computed tomography to detect para-aortic lymph node metastases in selected series with locally advanced cervical cancer

Series	N	FIGO stage 2009	PALN metastases without para-aortic uptake (n (%))*	PALN metastases with pelvic uptake (%)*	Sensitivity (%)	Specificity (%)	PPV (%)	NPV (%)
Leblanc 2011 ³⁶	125	IB2-IVA	14 (10.4)	20	33	94	54	88
Uzan 2011 ⁴⁸	96	IIB-IVA	8 (8.4)	24Le	NR	NR	NR	92
Ramirez 2011 ⁶⁷	60	IB2-IVA	14 (23)	22	36	96	71	83
Gouy† 2013 ⁴	237	IB2-IVA	29 (12)	NR	NR	N/R	N/R	88
Martinez† 2020 ²⁹	125	IB2-IVA	17 (13.6)	27	NR	N/R	N/R	86.4
De Cuypere 2020 ⁶⁸	168	IB2-IVA	26 (17.2)	22.4	24	93	47	83%



Stades localement avancés

Envahissement ganglionnaire LoA = facteur pronostic majeur

→ Quelle place pour le curage lombo-aortique ?

IIIC: Involvement of pelvic and/or para-aortic lymph nodes

IIIC1: Pelvic node metastasis only

IIIC2: Para-aortic nodes metastasis



Stades localement avancés

Quelle place pour le CLA de stadification

?

Le CLA modifie-t-il ...

- Le pronostic ?
- La stratégie thérapeutique ?

IIIC: Involvement of pelvic and/or para-aortic lymph nodes

IIIC1: Pelvic node metastasis only

IIIC2: Para-aortic nodes metastasis



Stades localement avancés

Quelle place pour le CLA de stadification

?

Pas de preuve de l'impact pronostic

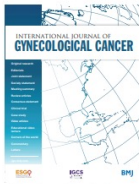
Review



How should we stage and tailor treatment strategy in locally advanced cervical cancer? Imaging versus para-aortic surgical staging

Alejandra Martinez ^{1,2} Martina Aida Angeles,² Denis Querleu,³ Gwenael Ferron,^{2,4} Christophe Pomet⁵

2020 - IJGC



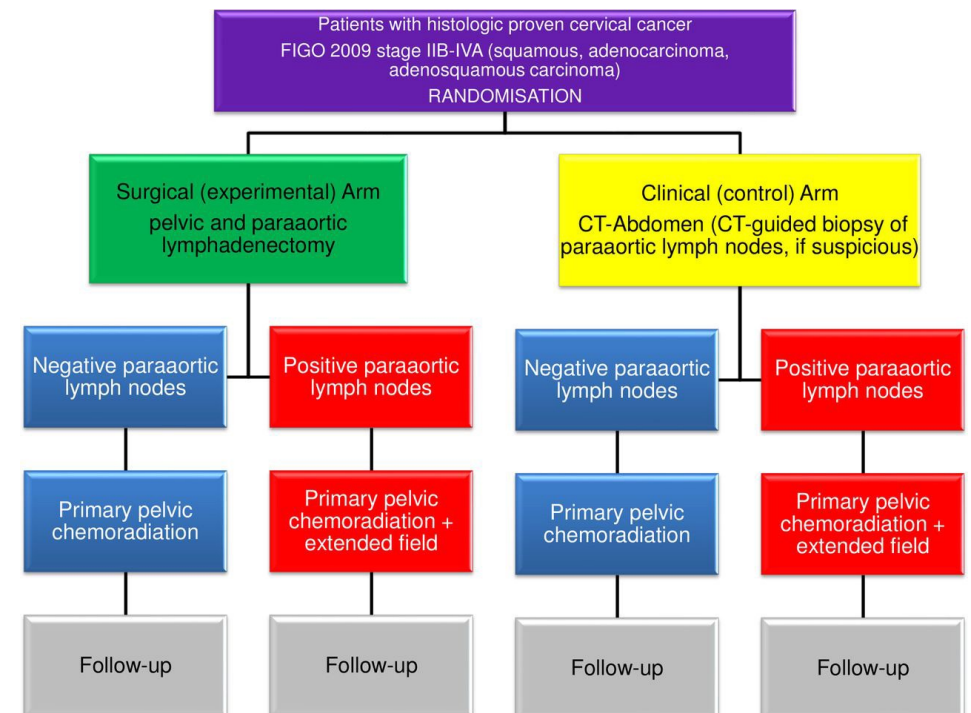
Surgical versus clinical staging prior to primary chemoradiation in patients with cervical cancer FIGO stages IIB–IVA: oncologic results of a prospective randomized international multicenter (Uterus-11) intergroup study

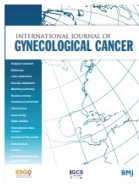
Simone Marnitz,¹ Audrey Tieko Tsunoda,² Peter Martus,³ Marcelo Vieira,⁴ Renato Jose Affonso Junior,⁵ João Nunes,^{2,6} Volker Budach,⁷ Hermann Hertel,⁸ Alexander Mustea,⁹ Jalid Sehouli,¹⁰ Jens-Peter Scharf,¹¹ Uwe Ulrich,¹² Andreas Ebert,¹³ Iris Piwonski,¹⁴ Christhardt Kohler^{15,16}

255 patientes
Essai randomisé

- 130 bras stadification chirurgicale
- 125 bras contrôle (radiologique)

2020 - IJGC





Surgical versus clinical staging prior to primary chemoradiation in patients with cervical cancer FIGO stages IIB–IVA: oncologic results of a prospective randomized international multicenter (Uterus-11) intergroup study

Simone Marnitz,¹ Audrey Tieko Tsunoda,² Peter Martus,³ Marcelo Vieira,⁴ Renato Jose Affonso Junior,⁵ João Nunes,^{2,6} Volker Budach,⁷ Hermann Hertel,⁸ Alexander Mustea,⁹ Jalid Sehouli,¹⁰ Jens-Peter Scharf,¹¹ Uwe Ulrich,¹² Andreas Ebert,¹³ Iris Piwonski,¹⁴ Christhardt Kohler^{15,16}

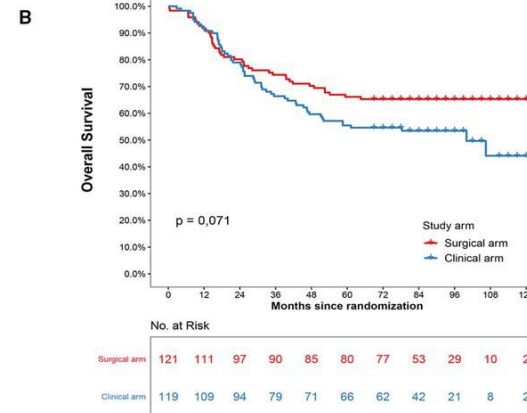
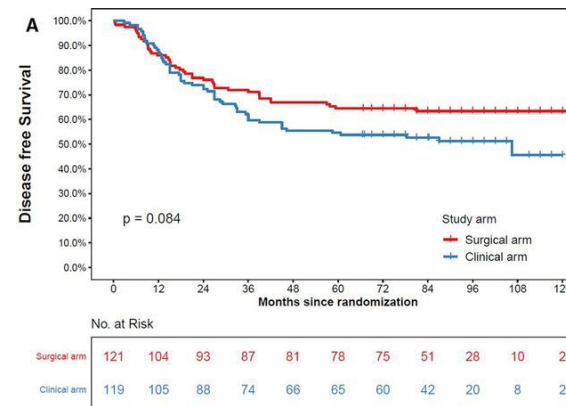
Pas de différence significative en SSR

Différence en analyse en sous-groupe : IIB

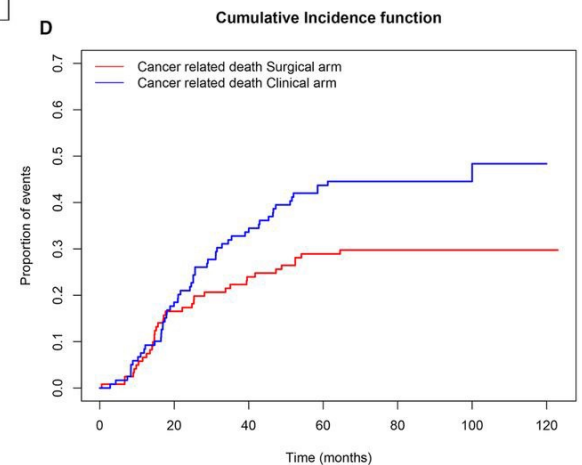
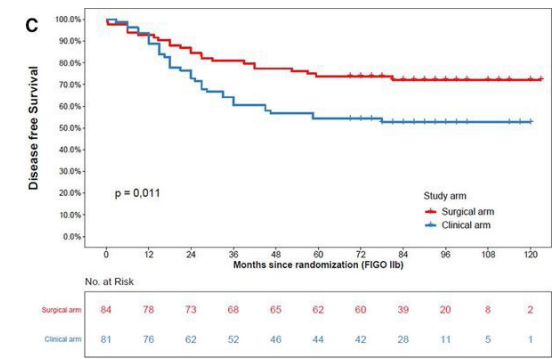
Patientes à haut risque de récurrence à distance

2020 - IJGC

Population générale



Stade IIB



Toxicité de l'irradiation ganglionnaire & IMRT

Etude INTERTECC-2 - phase II internationale

83 patientes de 2011 à 2015

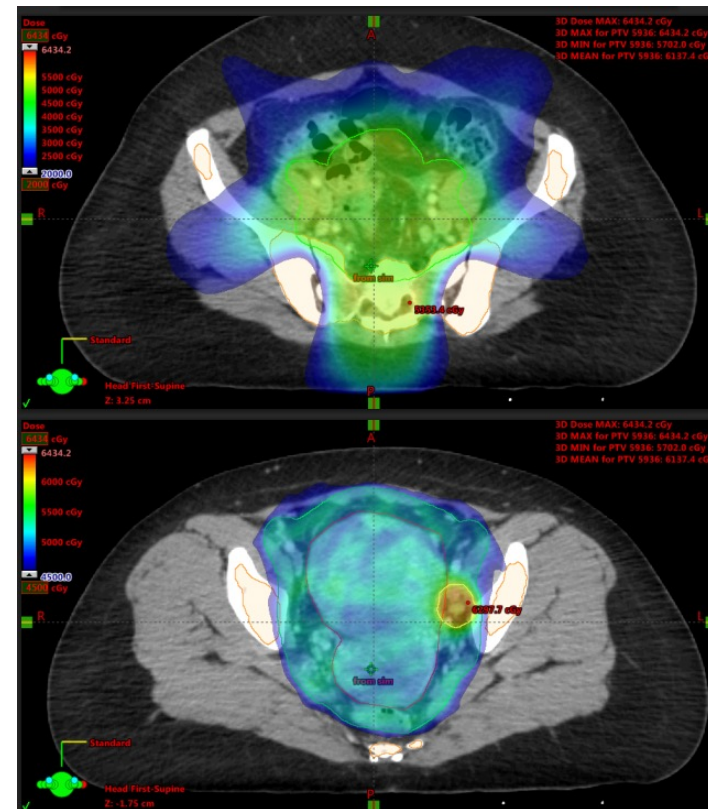
Cancer du col St IB-IVA
RTCT pelvienne + curie

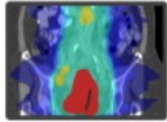
IMRT vs IMRT guidée par PET (IG-IMRT) pour épargner la moelle osseuse active

Risque de neutropénie de grade ≥ 3 ou toxicité GI significative **26,5%** (vs 40% dans les essais en 3D)

IG-IMRT : réduction de la neutropénie G3+ à 8,6% vs 27,1%

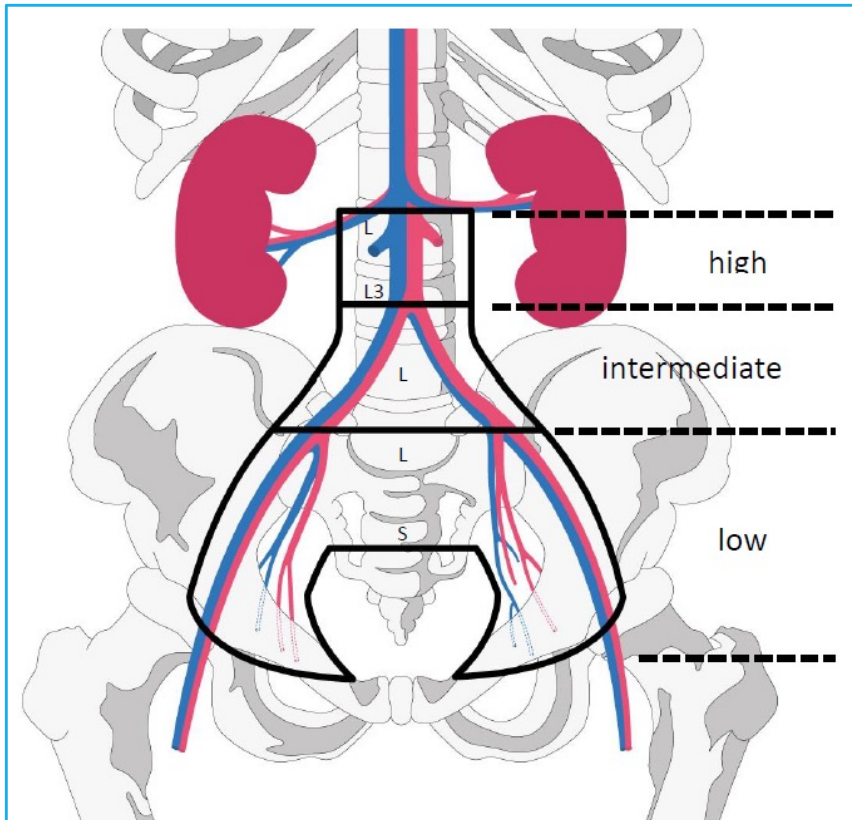
Pas d'impact significatif sur la leucopénie





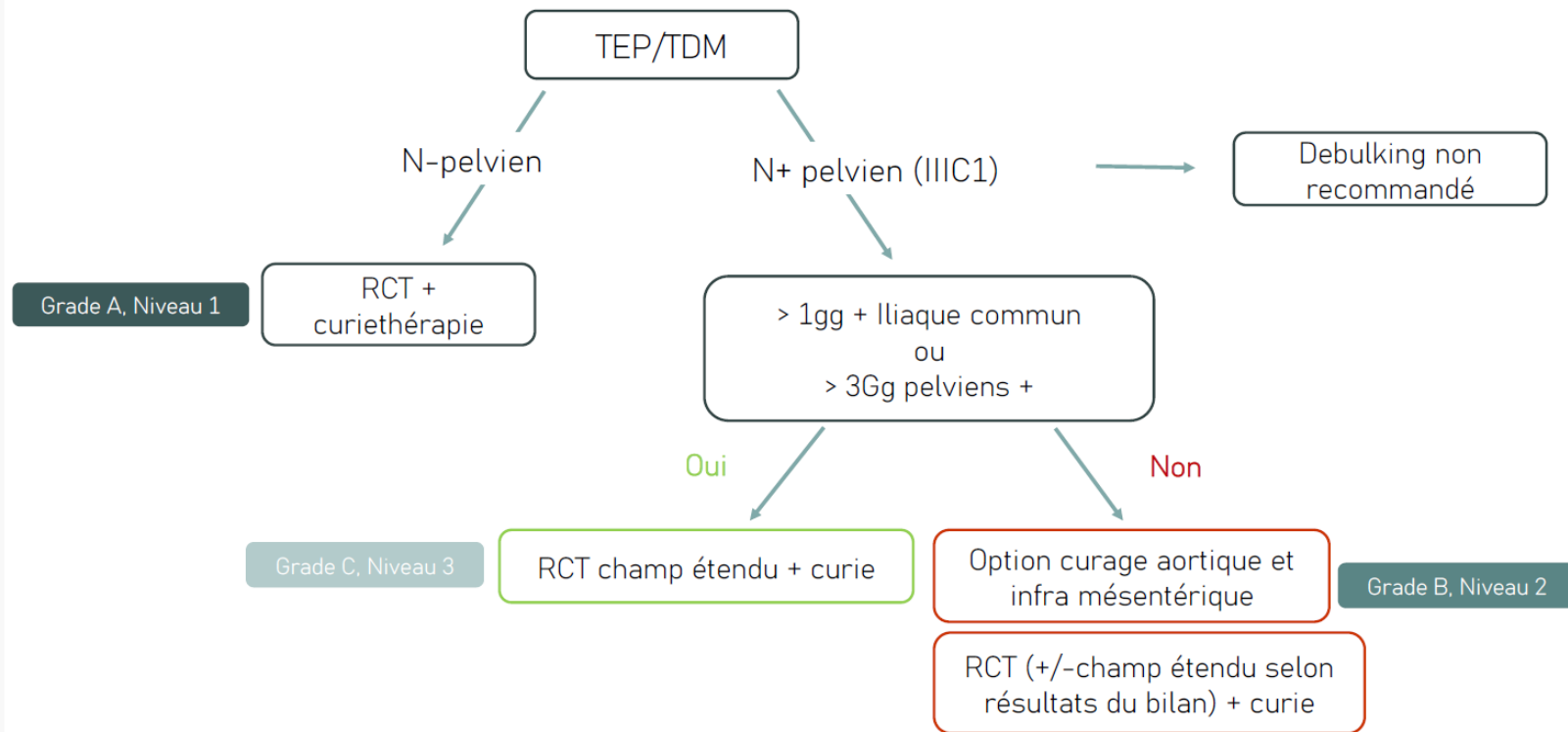
EMBRACE-II

{ Image guided intensity modulated External beam radiotherapy and MRI based adaptive BRachytherapy in locally advanced Cervical cancer }



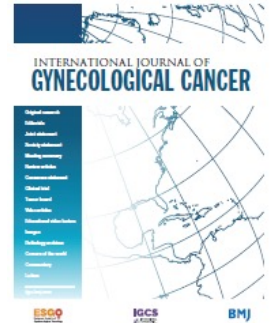
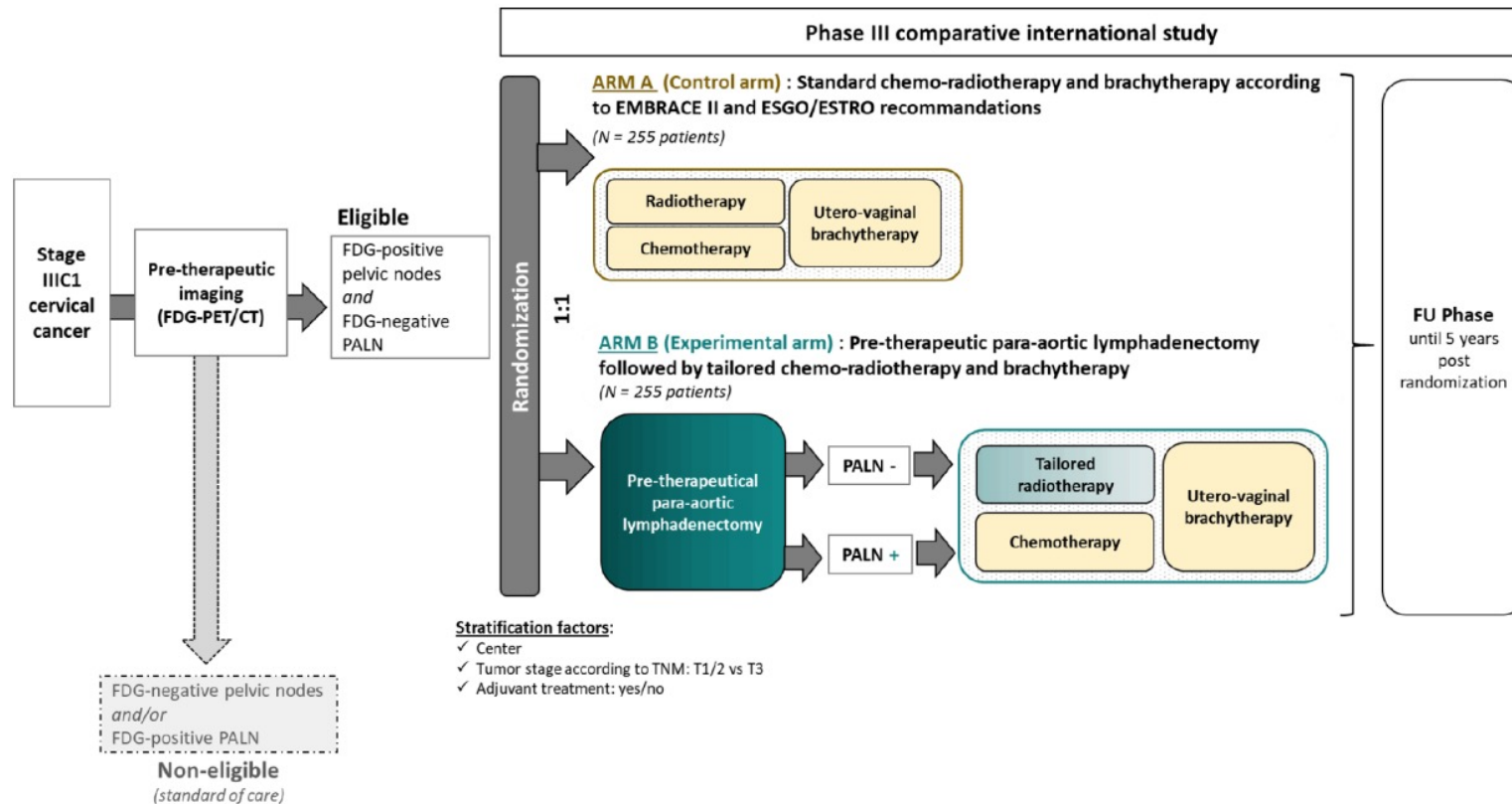
Risk Group LN	Definition	EBRT lymph node regions
Low Risk (LR LN)	Tumour size ≤ 4 cm AND stage IA/IB1/IIA1 AND N0 AND squamous cell carcinoma AND no uterine invasion	"Small Pelvis" internal iliac external iliac obturator presacral
Intermediate Risk (IR LN)	Not low risk No high risk features	"Large Pelvis" Nodes included in "Small Pelvis" and common iliac region (including the aortic bifurcation). In addition: • inguinal in case of distal vaginal involvement. • Mesorectal space in case of mesorectal nodes and advanced local disease
High Risk (HR LN)	Based on nodal pathology • ≥ 1 pathologic node at common iliac or above • OR ≥ 3 pathologic nodes	"Large Pelvis + Para-aortic" Nodes included in "Large Pelvis" and para-aortic region with the upper border of CTV minimum at the level of renal veins (usually incl. L2), and at least 3 cm cranial of the highest pathological node in case of para-aortic nodes].

78% des rechutes Lao étaient chez des patientes non traitées sur cette zone



Réponse en 2030...

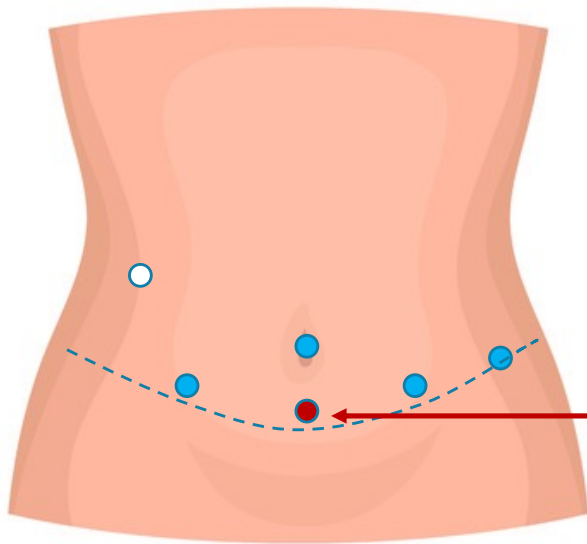
PAROLA Trial



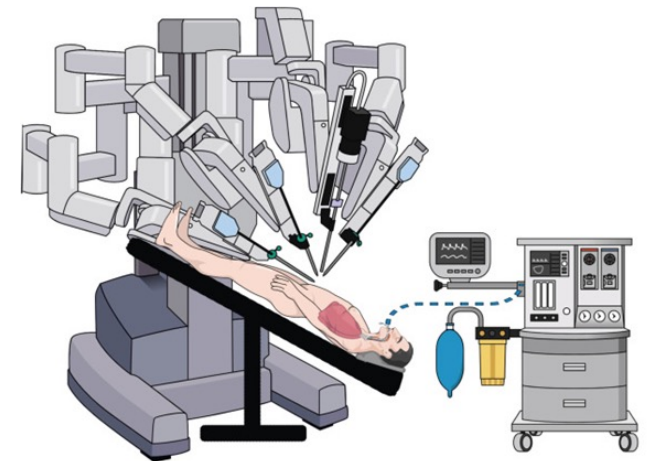
Curage lombo-aortique de stadification

Voie rétro-péritonéale

Intérêt de la chirurgie robotique



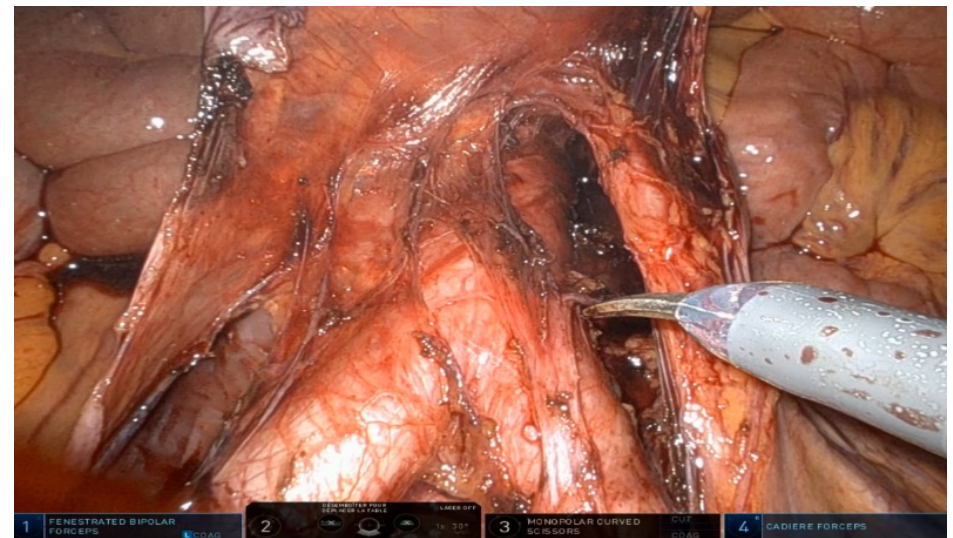
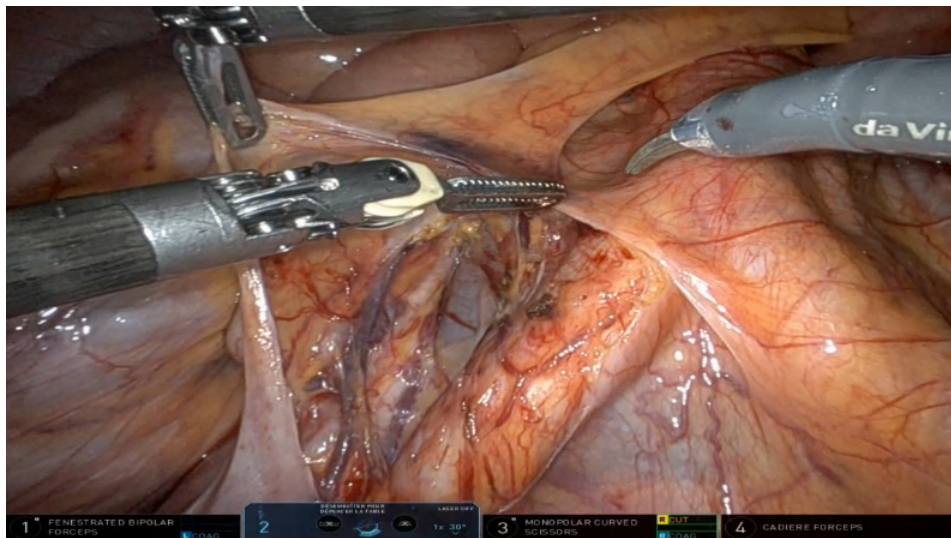
*Trocart optique
pour temps
lombo-aortique*



Placement des trocarts opérateurs : le plus bas possible

Curage lombo-aortique de stadification

Intérêt de la chirurgie robotique





Institut Universitaire
du Sein et de
Cancérologie
Gynécologique

Merci pour votre attention

MARIE GOSSET

MARIE.GOSSET@NICE.UNICANCER.FR

DÉPARTEMENT DE CHIRURGIE ONCOLOGIQUE GYNÉCOLOGIQUE ET SÉNOLOGIQUE