

EEL WEBINARS



Tips and tricks in surgical management of deep endometriosis of the rectum: how I do disk excision using a circular stapler

Prof Horace ROMAN

*Endometriosis Center, Clinique Tivoli-Ducos, Bordeaux, France
University Hospital Aarhus, Denmark*



**Personal fees for involvement in Masterclasses and Workshops
on surgery of deep endometriosis (2014-2020):**

PlasmaSurgical Inc

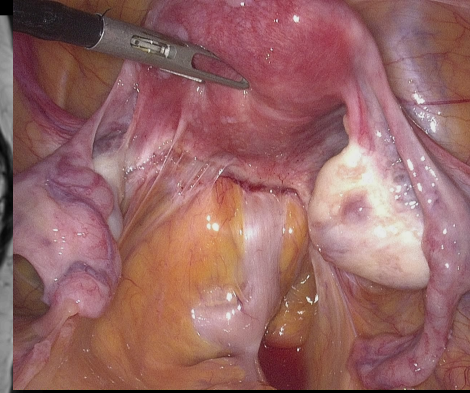
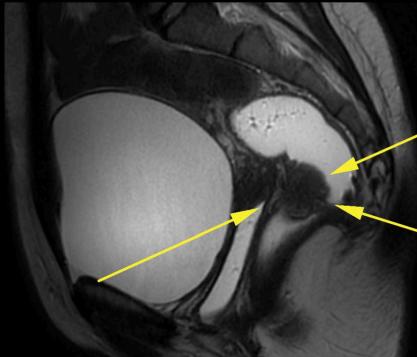
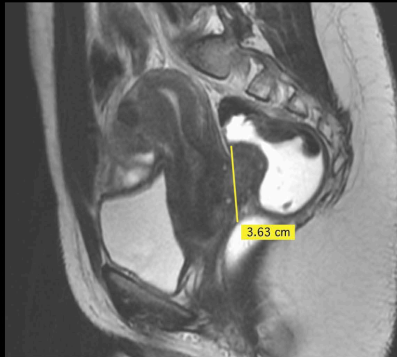
Olympus

Nordic Pharma

ETHICON

Types of rectosigmoid lesions

- **1. Posterior adenomyoma:** isthmus, vagina, parameters and mid/low rectum



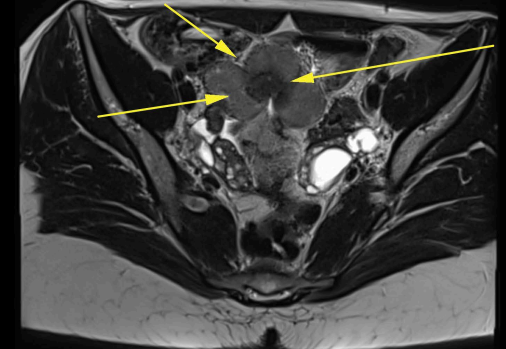
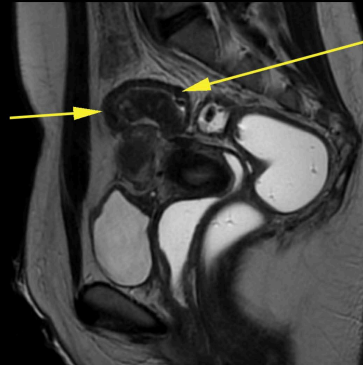
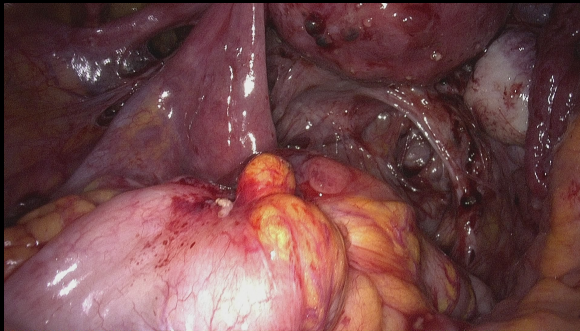
- **2. Solitary nodules:** may be overlooked!

May be connected to left ovarian endometriomas

Look carefully at the MRI pictures

Do not blindly trust inexperienced radiologists

Risk of occlusion !



Types of rectosigmoid lesions

- 1. **Posterior adenomyoma:** isthmus, vagina, parameters and mid/low rectum

Most suitable for disc excision

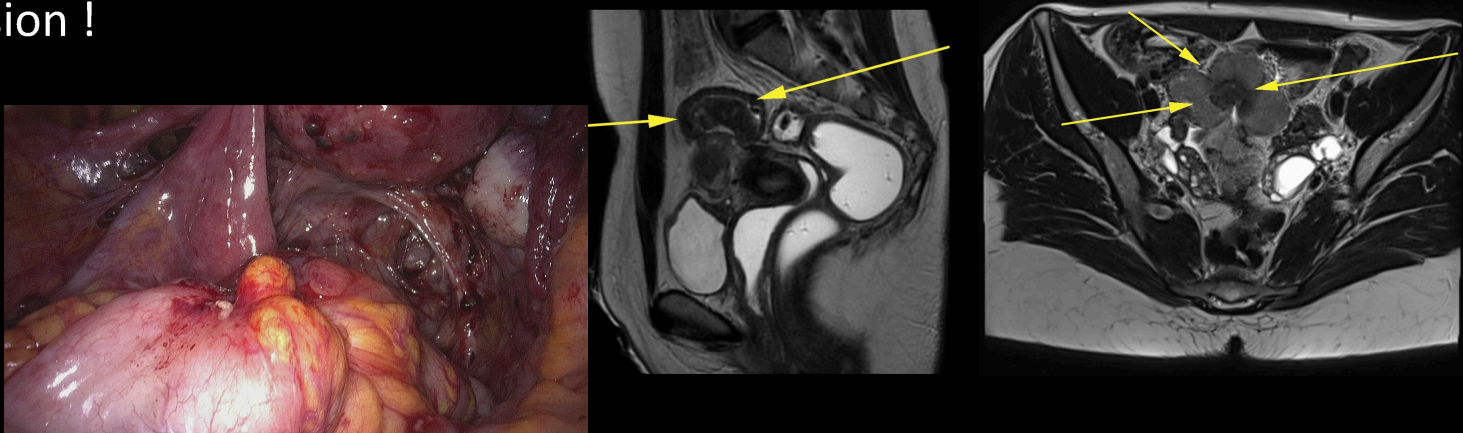
- 2. **Solitary nodules:** may be overlooked!

May be connected to left ovarian endometriomas

Look carefully at the MRI pictures

Do not blindly trust inexperienced radiologists

Risk of occlusion !



What is the place of the disk excision in the management of rectal endometriosis?

FRIENDS study

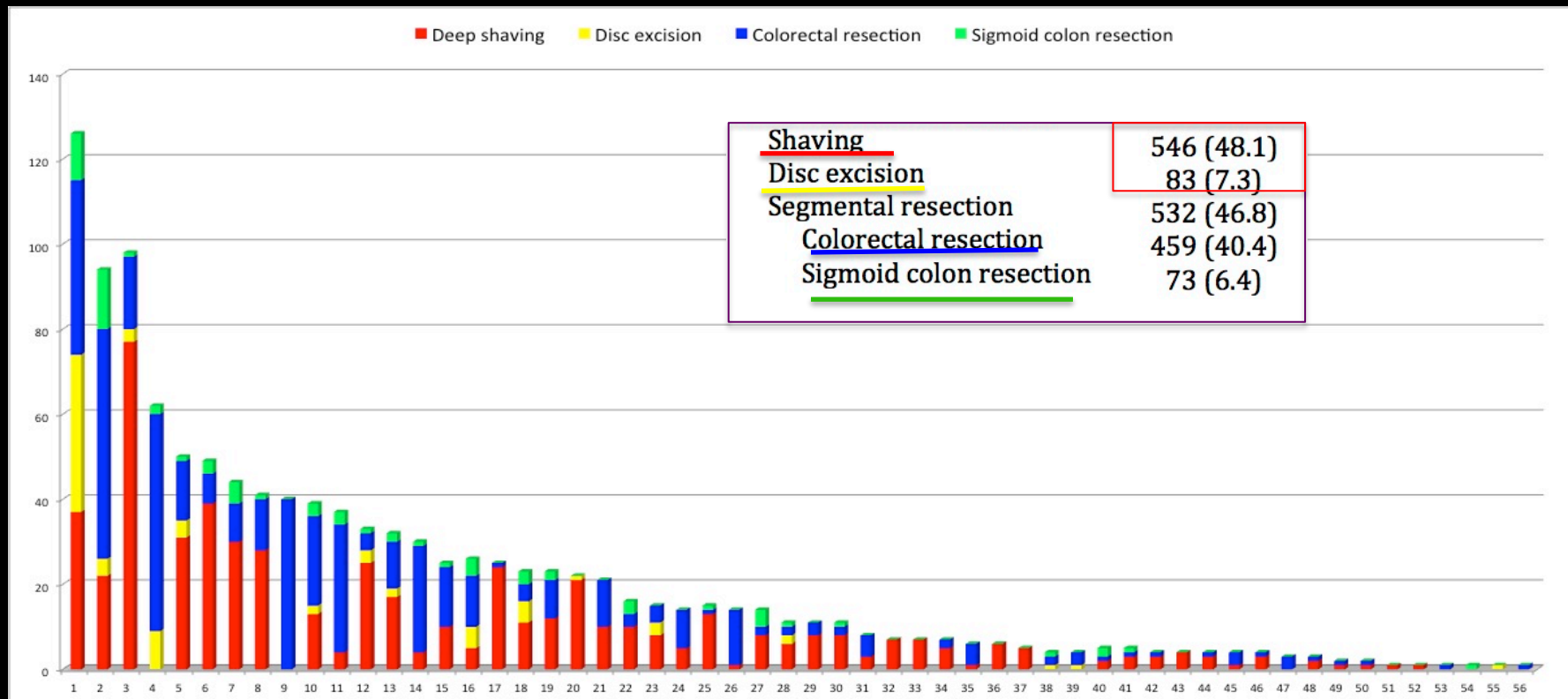
(French coloRectal Infiltrating ENDometriosis)

France 2015: 1,135 woman managed for colorectal endometriosis/56 facilities

92% minimally invasive approach = 82% laparoscopy + 9.9% robotic surgery

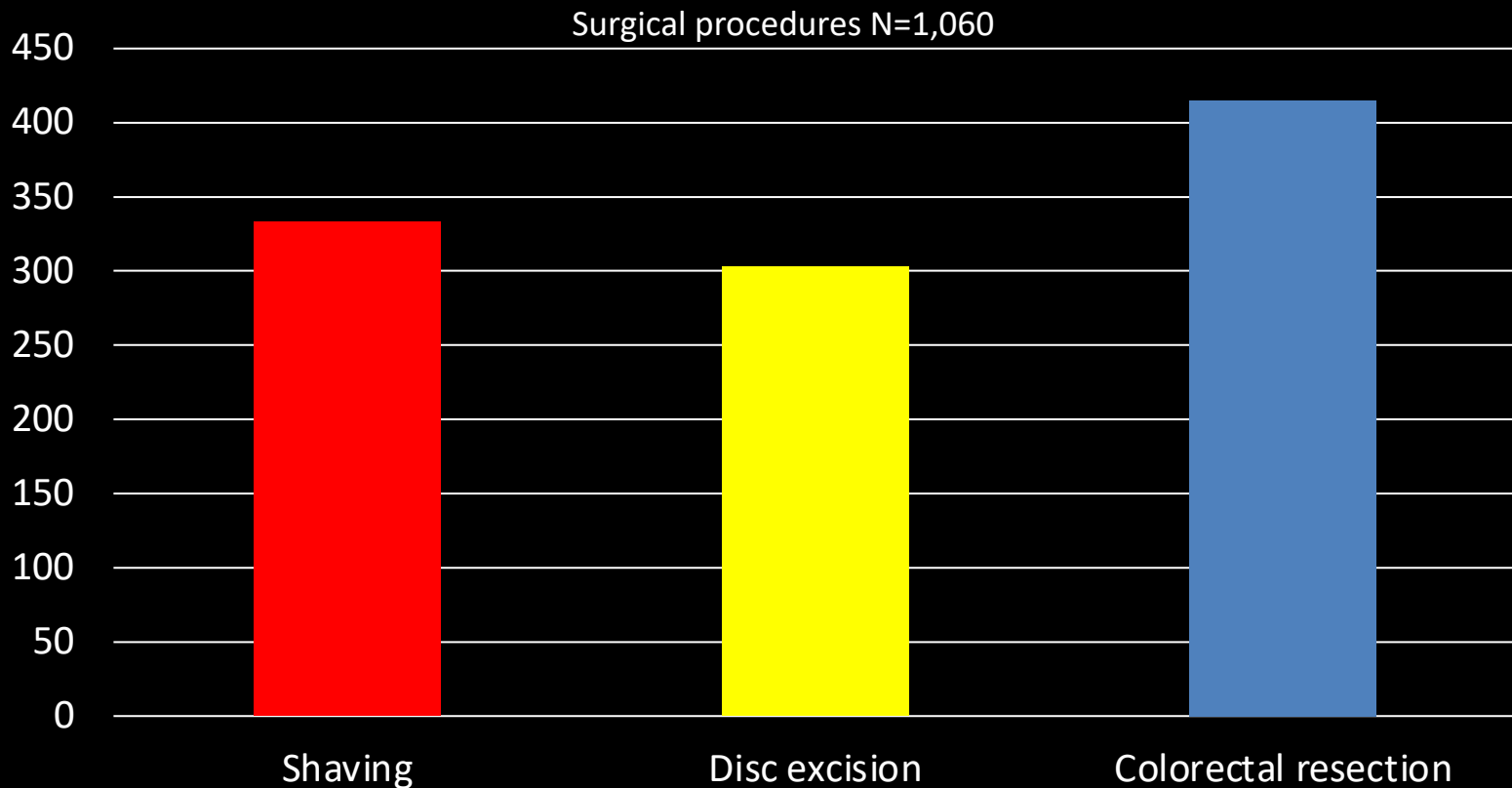
55.4 % conservative procedures on the digestive tract

Roman and FRIENDS, JOGOH 2017



Personal experience on colorectal endometriosis

- Jan 2005 - Mar 2020: **1,060 patients**
- **60% conservative procedures = disk excision and shaving**
- **30% disk excision**



Shaving

Excision of the nodule **without opening the rectum**

Using:

-scissors

-laser

-plasma

-harmonic scalpel

Goal: **complete excision + bowel conservation**

Check the lack of bowel perforation!

Fistula are catastrophic, because unexpected

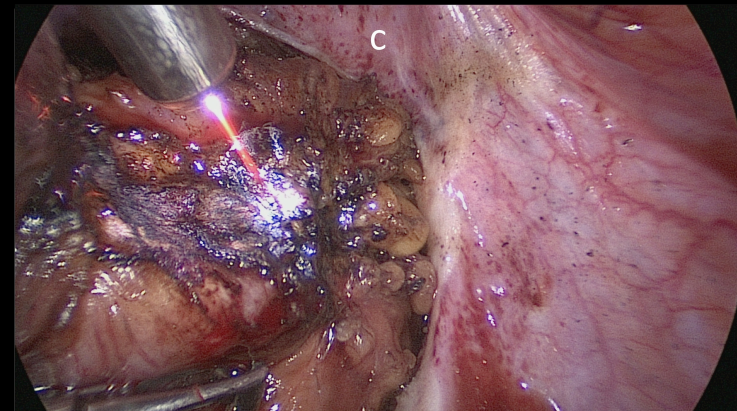
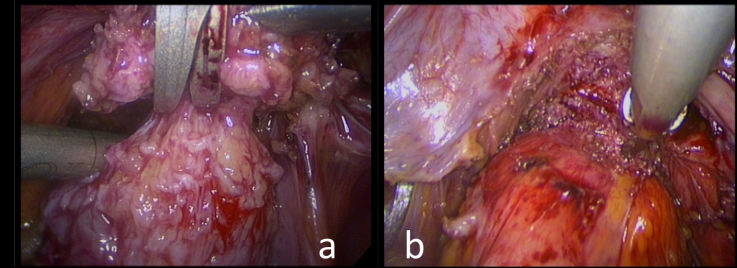
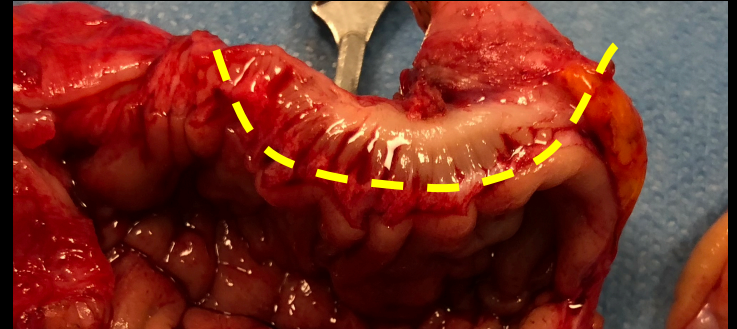
If **injury +**, put stitches / convert to disc excisions

Donnez et al, 1995, Nezhat et al, 1988,

Reich et al, 1991, Seracchioli et al, 2015

Roman et al, 2016, 2017

Donnez and Roman, 2018



Rectal shaving

- Excision of **macro/microscopic** lesions is most likely **incomplete**
- Low rate of **complications**
- Low rate of **worse functional outcomes** (patients are rarely impaired)
- Preoperative **constipation** appears to be incompletely relieved (KESS score)
- Long term **recurrences** is probably higher (**8% in our series**)
- Own opinion: Good technique in **elderly women / postoperative amenorrhea**
- **First line technique, when feasible**

Table 3. Postoperative assessment of digestive function.

Parameter	Baseline	1 year		3 years	
	N=122	N=117	<i>p</i>	N=61	<i>p</i>
KESS ¹ score (n.v.<7)	12.1±6.6	9.9±6.6	0.01	10.9±6.4	0.24
GIQLI ² (n.v.> 100)	86.7±22.7	104.8±22.1	0.001	106.9±19	<0.001
Abdominal pain (GIQLI item 1)	1.72±0.96	2.65±1.10	<0.001	2.55±1.02	<0.001
Embarrassed by bowel frequency (GIQLI item 7)	2.7±1.15	3.04±1.12	0.02	3.24±0.94	0.002
Diarrhea (GIQLI item 31)	2.9±1.16	3.35±0.95	0.001	3.45±0.8	0.001

Roman et al, Fertil Steril 2016

¹Knowles-Eccersley-Scott-Symptom Questionnaire; ²Gastrointestinal Quality of Life Index.

Disk excision

Full thickness excision (disc, patch) followed by the suture of the bowel

Bowel suture:

- direct, by stitches
- EEA transanal stapler,
- Contour Transtar stapler (the Rouen technique)

- **Goal: complete excision + bowel conservation**

- **Advantages:**

- **1. no bowel denervation**
- **2. no bowel length/volume reduction**



Nezhat et al, 1994

Gordon et al 2001, Landi et al 2008

Roman et al 2017, Donnez and Roman, 2018

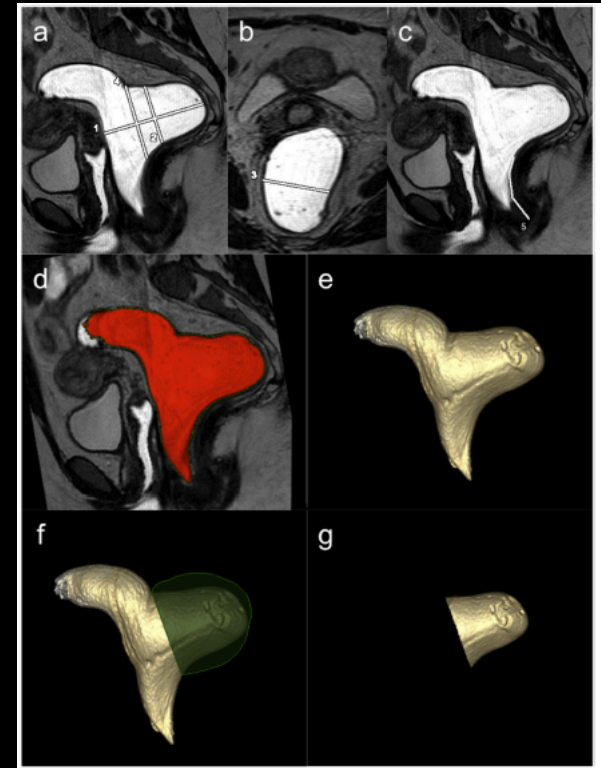
Ng et al, 2016

Disk excision

Disc excision:

- Resection of **microscopic foci** probably **incomplete** in **27-44%**
- Preservation of **mesorectum** and overall **rectal length**
- **No stenosis**
- **Posterior pouch** not impacting on rectal function

Original Article
 Posterior rectal pouch after large full-thickness disc excision of deep endometriosis infiltrating the low/mid rectum and relationship with digestive functional outcome
 Perrine d'Avout-Fourdinier^a, Marta Lempicka^a, André Gilibert^b, Céline Savoye-Collet^c, Loïc Marpeau^c, Clotilde Hennetier^c, Jean-Jacques Tuech^{d,e}, Horace Roman^{d,e,*}



ORIGINAL ARTICLE: ENDOMETRIOSIS

Functional outcomes after disc excision in deep endometriosis of the rectum using transanal staplers: a series of 111 consecutive patients

Horace Roman, M.D., Ph.D.,^{a,b} Basma Darwish, M.D.,^a Valérie Bridoux, M.D., Ph.D.,^c Rachid Chati, M.D.,^c Sabrina Kermiche, M.D.,^a Julien Coget, M.D.,^d Emmanuel Huet, M.D.,^a and Jean-Jacques Tuech, M.D., Ph.D.^d

ELSEVIER

JMIG The Journal of Minimally Invasive Gynecology

Original Article

Risk of Postoperative Stenosis after Segmental Resection versus Disk Excision for Deep Endometriosis Infiltrating the Rectosigmoid: A Retrospective Study

Sophia Braund, MD, Clotilde Hennetier, MD, Clemence Klapeczynski, MD, Antoine Scattarelli, MD, Julien Coget, MD, Valérie Bridoux, MD, Jean Jacques Tuech, MD, PhD, and Horace Roman, MD, PhD

Parameters	Baseline	1 year	3 years	P
KESS score (n.v.<7)	13.1 ±6.3	9 ± 5	8 ± 7.5	0.003
GIQLI (n.v.> 100)	86 ± 23	110 ± 18	119 ± 19	<0.001
Defecation pain	38 (76)	2 (8)	1 (10)	<0.001
Diarrhea	26 (52)	0	0	<0.001
Constipation	27 (54)	2 (8)	2 (20)	<0.001

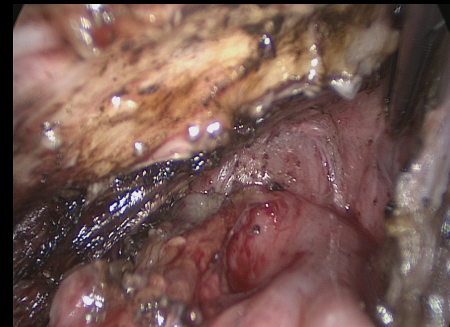
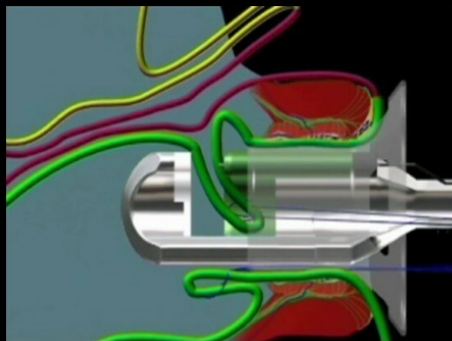
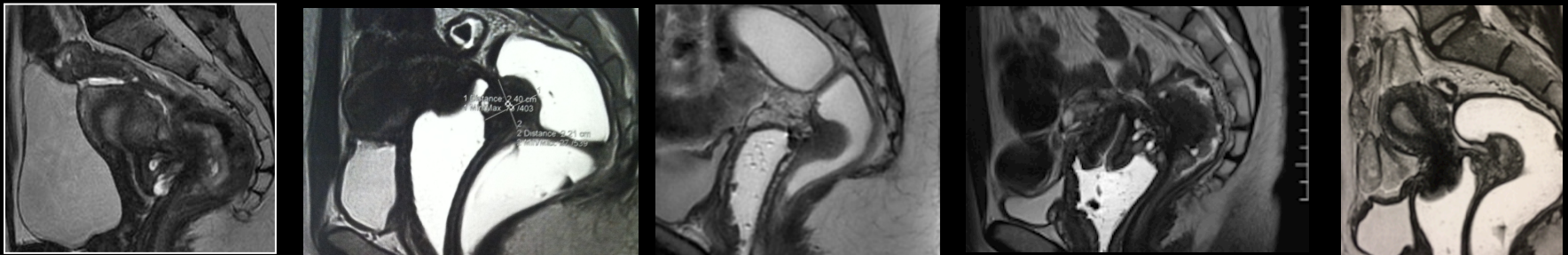
Personal experience in disk excision (N=317)

N=317 patients: Jun2009-Oct 2020 (Rouen + Bordeaux)

1. 88 cases M/L R: the Rouen technique (Transanal Contour Transtar stapler)
2. 226 cases : Transanal EEA Circular stapler
3. 3 cases direct disk excision : transvaginal / open route

Recurrences rate: 4 cases (1.3%)

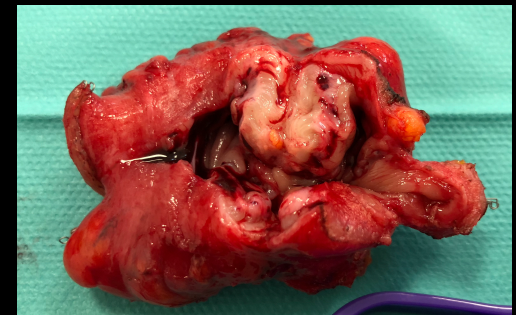
Stenosis of the bowel: 0%



Colorectal segmental resection



- Radical management: removal of a whole bowel segment
- The most used procedure in colorectal surgery
- The most standardized
- Suitable in:
 1. **Huge subocclusive nodule**
 2. **Nodules responsible for a long bowel infiltration**
 3. **Circumferential lesions**
 4. **Multifocal rectal lesions closer than 5-7 cm**



Incomplete microscopic foci removal: up to 30%

Recurrences rate: very low 1-2%

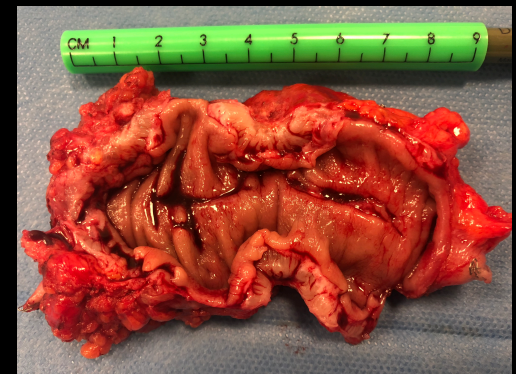
Personal recurrences rate after colorectal resection: 1%

Stenosis of the anastomosis: 8-18% (ENDORE)

Braund, Roman et al, JMIG 2020

Meuleman et al, 2010

Numerous case-series....



Multiple nodules of digestive tract

- Separate conservative procedures instead of long colorectal resection
- Conservation of 5-15 cm of healthy bowel separating 2 consecutive digestive nodules
- **36 patients** rectum + sigmoid
- Multiple nodules \neq CRR

Clinical Opinion

ajog.org

GYNECOLOGY

Surgical treatment of deep infiltrating rectal endometriosis: in favor of less aggressive surgery

Basma Darwish, MD; Horace Roman, MD, PhD

Roman et al, GOF 2016

Darwish et Roman, JMIG 2016

Millochau, Tuech, Roman, JMIG 2017

 ELSEVIER

JMIG The Journal of Minimally Invasive Gynecology

Original Article

Multiple Nodule Removal by Disc Excision and Segmental Resection in Multifocal Colorectal Endometriosis

Jenny-Claude Millochau, MD, Emanuela Stochino-Loi, MD, Basma Darwish, MD, Carole Abo, MD, Julien Coget, MD, Rachid Chati, MD, Jean-Jacques Tuech, MD, PhD, and Horace Roman, MD, PhD

Available online at  ScienceDirect www.sciencedirect.com

Elsevier Masson France  EM|consulte www.em-consulte.com



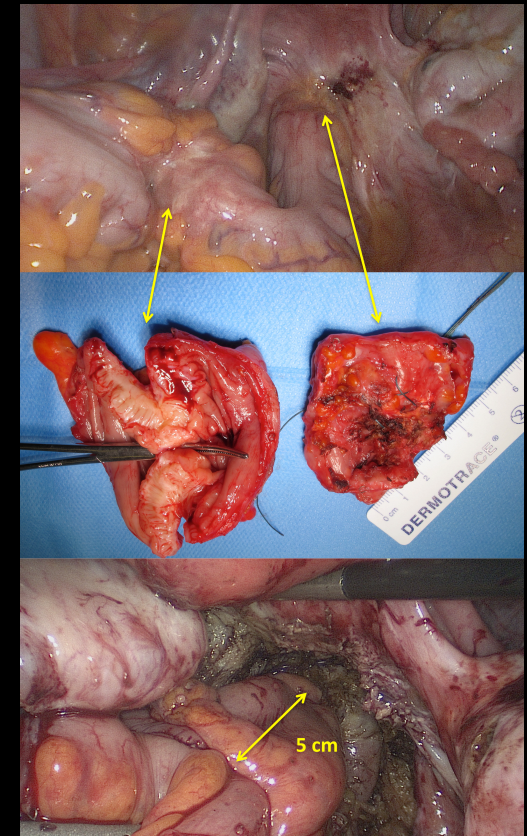
Clinical expert series

Multiple nodule removal in multifocal colorectal endometriosis instead of "en bloc" large colorectal resection

Exérèses multiples en cas d'endométriose digestive multifocale, plutôt que larges résections colorectales « en bloc »



H. Roman^{a,*}, B. Darwish^a, V. Bridoux^c, E. Huet^c, J. Coget^c, R. Chati^c, J.-J. Tuech^c, C. Abo^a



How I do disc excision using a circular stapler in 10 steps



JMIG The Journal of Minimally Invasive Gynecology

Log in Register Subscribe

VIDEO ARTICLE | ARTICLES IN PRESS

Purchase Subscribe Save Share

Disc Excision using Transanal Circular Stapler for Deep Endometriosis of the Rectum in 10 Steps

Horace Roman, MD, PhD  

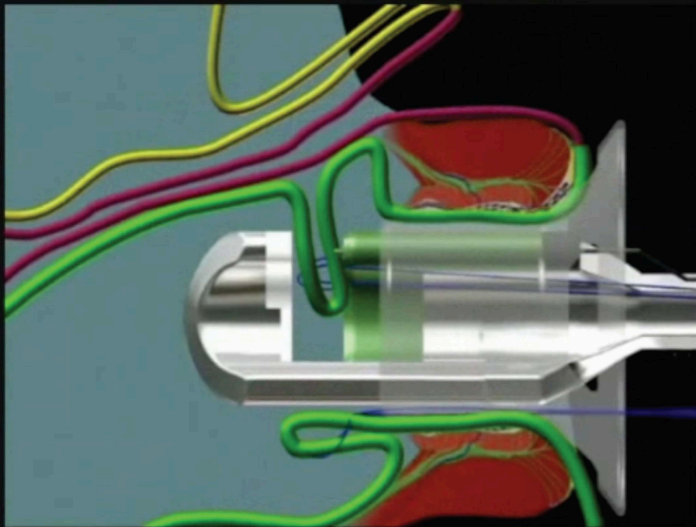
Published: April 23, 2020 • DOI: <https://doi.org/10.1016/j.jmig.2020.04.017>

Principles of disc excision using transanal staplers

Remove the **nodule** by deep shaving

Remove the **shaved area** using a stapler:

- Shaved area is pushed/prolapsed into the open stapler
- Stapled and fired
- Removal of a disc

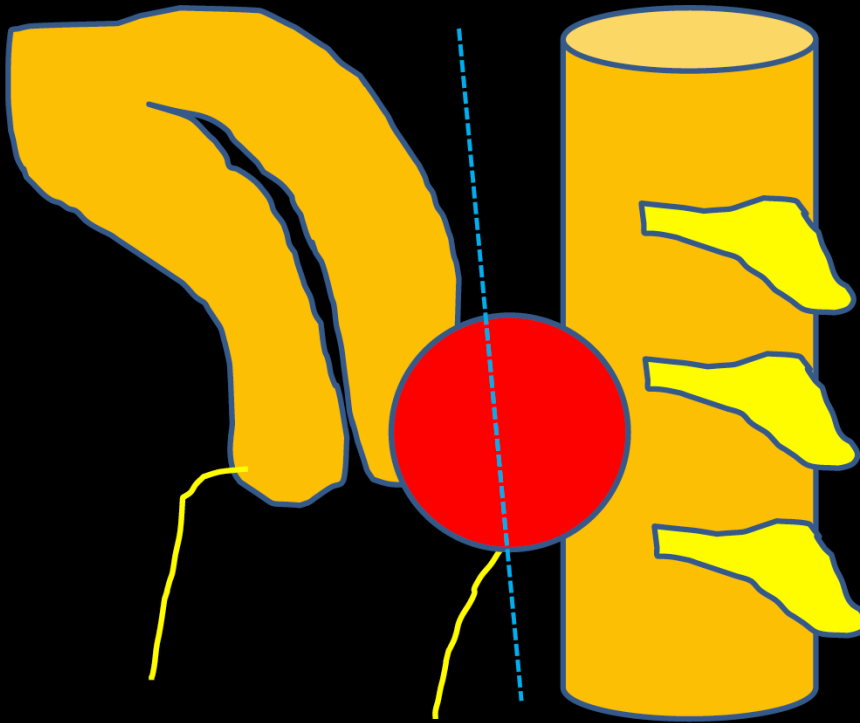


Disc excision using EEA stapler in 10 steps

- 1. Nodule dissection and rectum releasing**
- 2. Rectal shaving – to render rectal wall soft and thin**
- 3. Removal of fat tissue on lateral rectal wall**
- 4. Placement of the suture on shaved area**
- 5. Introduction of the EEA circular stapler CLOSED**
- 6. Stapler OPENING at nodule's level**
- 7. Knot performed, pushing shaved area into the stapler**
- 8. Stapler closed and fired**
- 9. +/- Stich to reinforce the stapled line**
- 10. Bubbles' test**

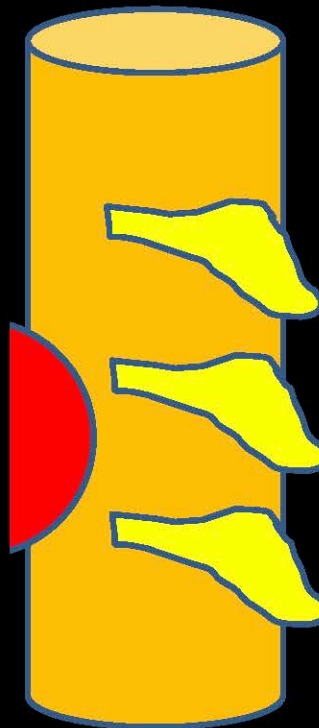
Disc excision using EEA stapler in 10 steps

1. Nodule dissection and rectum releasing



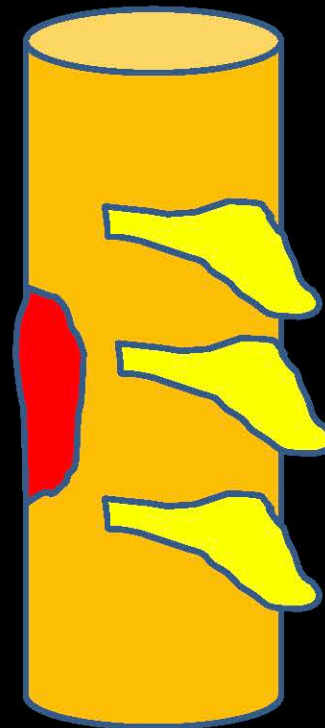
Disc excision using EEA stapler in 10 steps

2. Rectal shaving – to render rectal wall soft and thin



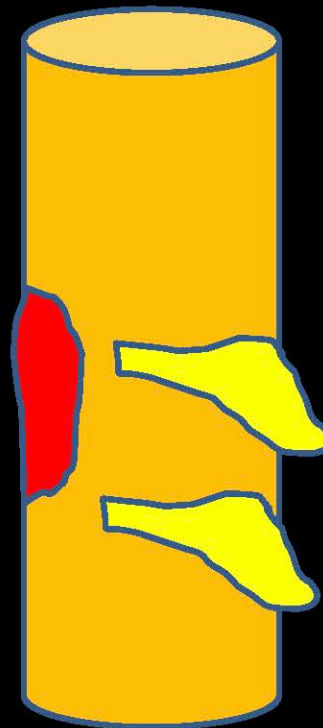
Disc excision using EEA stapler in 10 steps

3. Removal of fat tissue on lateral rectal wall



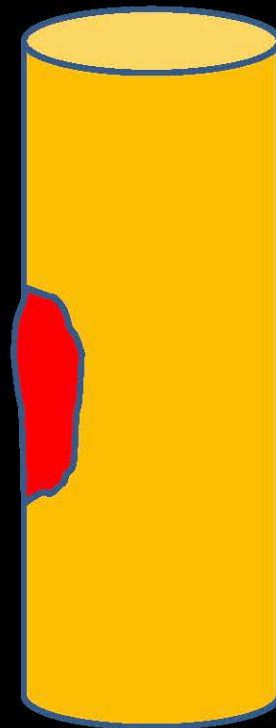
Disc excision using EEA stapler in 10 steps

3. Removal of fat tissue on lateral rectal wall



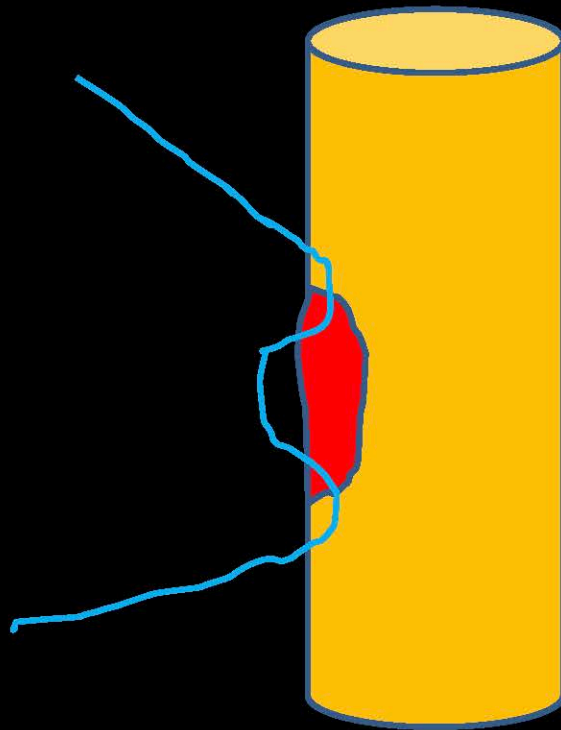
Disc excision using EEA stapler in 10 steps

3. Removal of fat tissue on lateral rectal wall



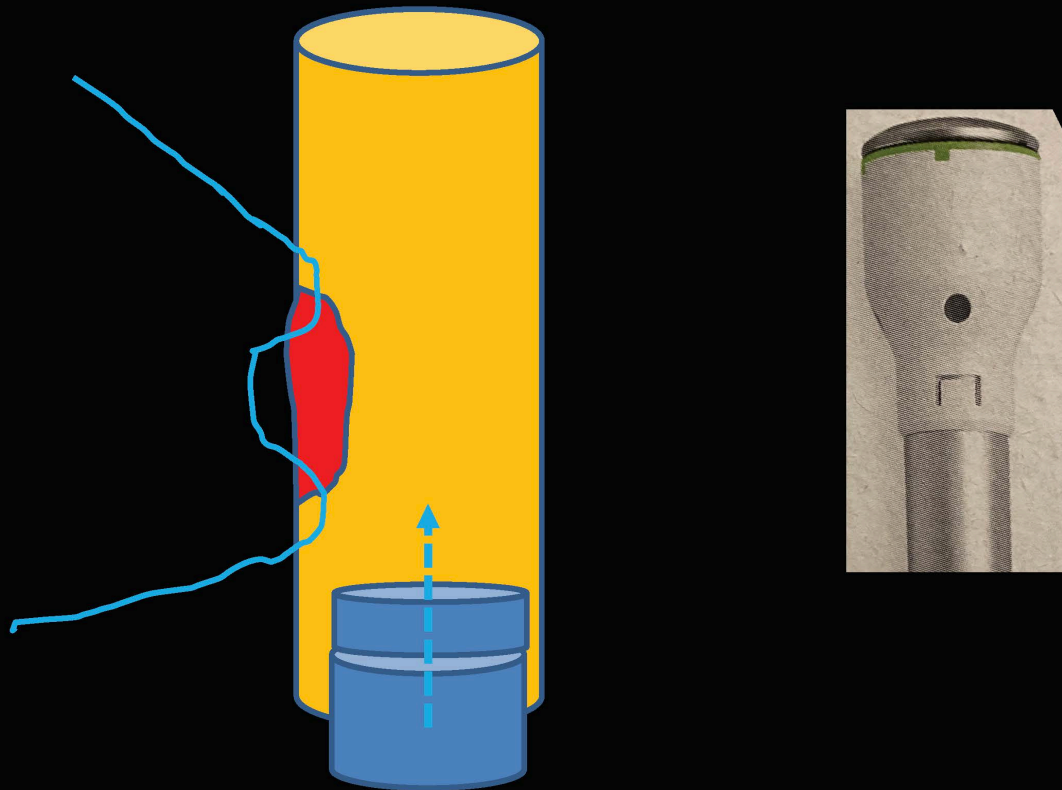
Disc excision using EEA stapler in 10 steps

4. Placement of the suture on shaved area



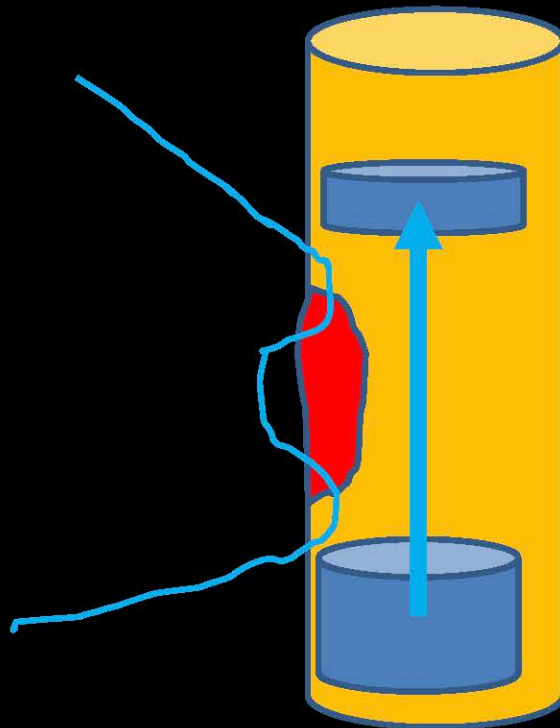
Disc excision using EEA stapler in 10 steps

5. Introduction of the EEA circular stapler CLOSED



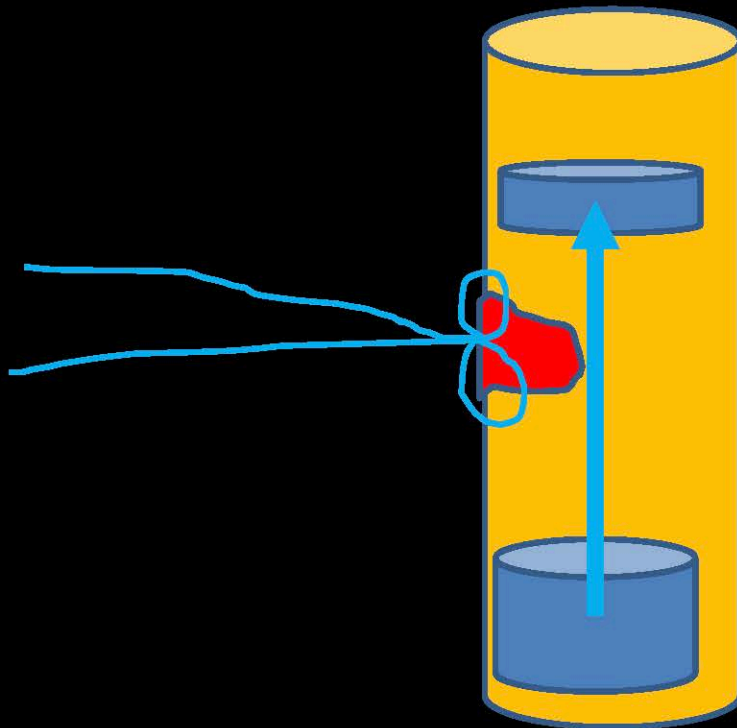
Disc excision using EEA stapler in 10 steps

6. Stapler OPENING at nodule's level



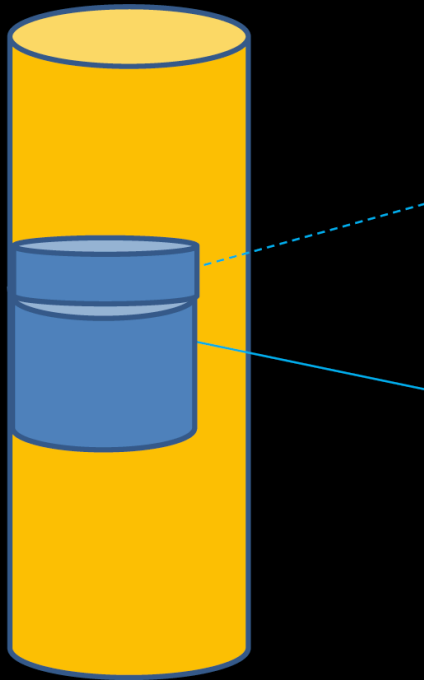
Disc excision using EEA stapler in 10 steps

7. Knot performed, pushing shaved area into the stapler



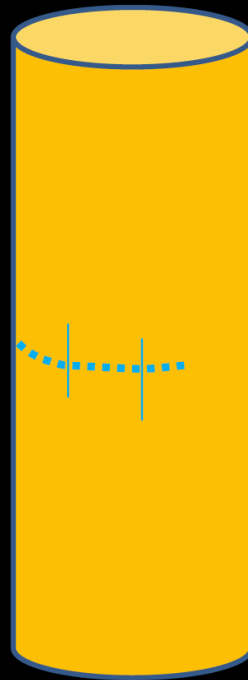
Disc excision using EEA stapler in 10 steps

8. Stapler anteversed, closed and fired



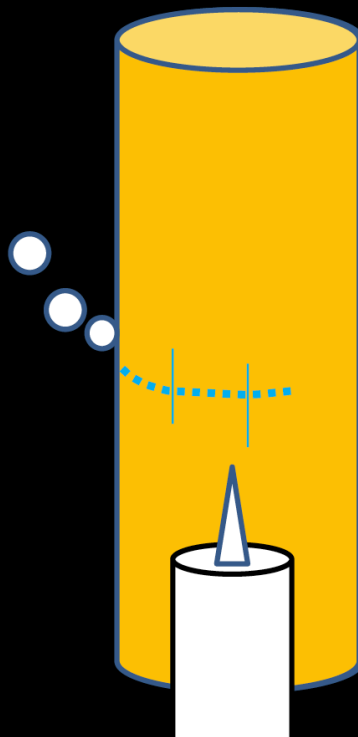
Disc excision using EEA stapler in 10 steps

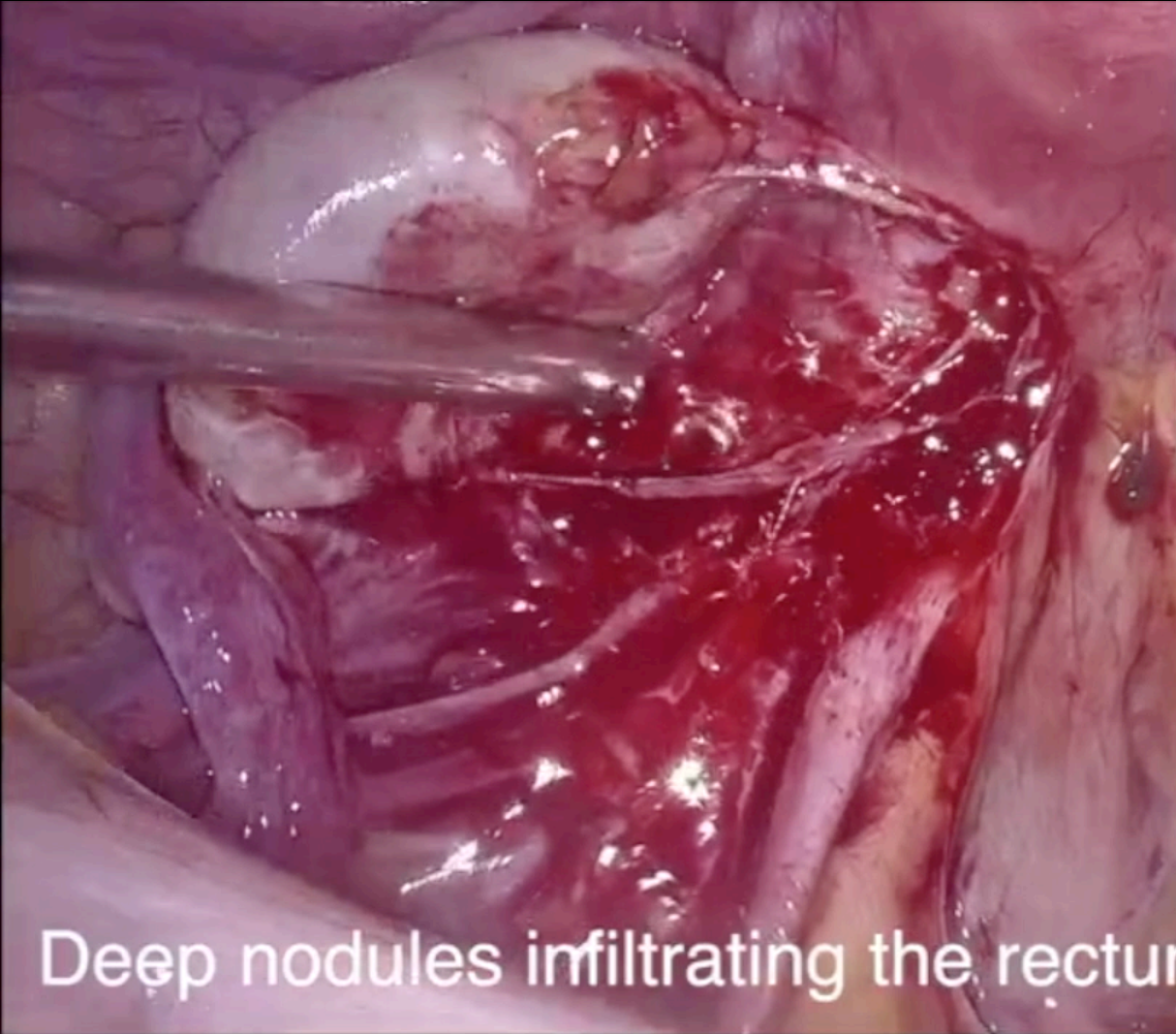
9. +/- Stich to reinforce the stapled line



Disc excision using EEA stapler in 10 steps

10. Bubbles' test





Deep nodules infiltrating the rectum. up to 4 cm length

What about large rectal nodules?

- Two specific procedures of disk excision:

1. The Rouen technique: semicircular stapler (88 patients)

Laparoscopic and transanal excision of large lower- and mid-rectal deep endometriotic nodules: the Rouen technique

Horace Roman, M.D., Ph.D., and Jean Jacques Tuech, M.D., Ph.D.

2. Double disk excision: using consecutively a 33mm and a 29 mm circular stapler (24 patients)

JMIG The Journal of Minimally Invasive Gynecology

Log in Register Subscribe

ORIGINAL ARTICLE | ARTICLES IN PRESS

Purchase Subscribe Save

Double Disk Excision of Large Deep Endometriosis Nodules Infiltrating the Low and Mid Rectum: A Pilot Study of 20 Cases

Ahmet Namazov, MD • Shamitha Kathurasinghe, MBBS • Jamil Marabha, MD • ... Clotilde Hennetier, MD • Jean-Jacques Tuech, MD, PhD • Horace Roman, MD, PhD • Show all authors

Published: April 30, 2020 • DOI: <https://doi.org/10.1016/j.jmig.2020.04.019>

Immediate complications related to colorectal endometriosis surgery

Immediate postoperative complications

- Rouen series : 6/2009 – 12/2015
- 364 patients: shaving, disc excision, resection

ORIGINAL ARTICLE: ENDOMETRIOSIS

Postoperative complications after bowel endometriosis surgery by shaving, disc excision, or segmental resection: a three-arm comparative analysis of 364 consecutive cases

Carole Abo, M.D.,^a Salwa Moatassim, M.D.,^a Noemie Marty, M.D.,^a Mathilde Saint-Ghislain, M.D.,^a Emmanuel Huey, M.D.,^b Valérie Bridoux, M.D., Ph.D.,^b Jean Jacques Tuech, M.D., Ph.D.,^b and Horace Roman, M.D., Ph.D.^{a,c}

TABLE 4

Postoperative complications.

Characteristics	Whole sample (N = 364; %)	Shaving (N = 145; 39.8%)	Disc excision (N = 80; 22%)	Segmental colorectal resection (N = 139; 38.2%)	P value
Follow-up (mo)	40 ± 22	46 ± 22.9	32.3 ± 20.4	37.9 ± 20.3	< .001
Clavien 3 postoperative complications					
Clavien 3a postoperative complications	11 (3)	1 (0.7)	4 (5)	6 (4.3)	.10
Clavien 3b postoperative complications	43 (11.8)	8 (5.5)	6 (7.5)	29 (20.9)	< .001
Rectovaginal fistulae	14 (3.8)	3 (2.1)	3 (3.7)	8 (5.8)	.13
Pelvic abscess requiring second laparoscopy	19 (5.2)	5 (3.4)	2 (2.5)	12 (8.6)	.09
Pelvic abscess managed by only antibiotics	5 (1.4)	3 (2.1)	0	2 (1.4)	.64
Rectorrhage requiring endoscopy	5 (1.4)	0	3 (3.7)	2 (1.4)	.07
Transitory bladder atony requiring 3 week to 6 month autocatheterization	30 (8.2)	8 (5.5)	16 (20)	6 (4.3)	< .001
Stoma-related early complications	8 (2.2)	0	6 (7.5)	2 (1.4)	.001
Severe abdominal hemorrhage requiring open surgery in emergency	1 (0.3)	0	1 (1.2)	0	.22
Peritonitis after stoma closure	1 (0.3)	0	1 (1.2)	0	.22
Cutaneous abscess	4 (1.1)	0	4 (5)	0	.002
Stenosis of colorectal anastomosis	8 (2.2)	0	0	8 (5.8)	.003

Abo. Complications in bowel endometriosis surgery. Fertil Steril 2017.

Bowel fistula

The most severe complication of the surgery of colorectal endometriosis

1,102 patients

- 831 at the Rouen University Hospital
- 39 at the Clinique Mathilde, Rouen
- 232 patients at the Clinique Tivoli-Ducos, Bordeaux

37 bowel fistula (3.4%)

- 23 patients with **rectovaginal fistula (RVF, 62.1%)**
- 14 patients with **bowel leakage and no vaginal wound (37.9%)**

human
reproduction

ORIGINAL ARTICLE *Gynaecology*

Risk of bowel fistula following surgical management of deep endometriosis of the rectosigmoid: a series of 1102 cases

Horace Roman^{1,2,*}, Valérie Bridoux³, Benjamin Merlot¹, Benoit Resch^{4,5}, Rachid Chati³, Julien Coget³, Damien Forestier¹, and Jean-Jacques Tuech³

Bowel fistula

- Risk factors: **bowel suture**

human reproduction

ORIGINAL ARTICLE Gynaecology

Risk of bowel fistula following surgical management of deep endometriosis of the rectosigmoid: a series of 1102 cases

Horace Roman^{1,2*}, Valérie Bridoux³, Benjamin Merlot¹, Benoit Resch^{4,5}, Rachid Chat³, Julien Coget³, Damien Forestier¹, and Jean-Jacques Tuech³

Table III Independent factors related to the probability of bowel fistula (logistic regression model).

	Total (n = 1102 (100%)) n° (% of whole population)	Fistula (n = 37 (3.4%)) n° (%)	OR	95% CI	P
Procedure on the rectum*					
Shaving	351 (31.9)	3 (0.9)	1		
Disc excision	254 (23.1)	16 (6.3)	6.8	1.9–23.8	0.003
Segmental resection	394 (35.8)	15 (3.8)	4.8	1.4–16.9	0.01
Rectal disc excision + sigmoid colon resection	32 (2.9)	3 (9.3)	11	2.1–58.6	0.005
Vaginal excision					
No	567 (51.5)	12 (2.1)	1		0.08
Yes	535 (48.6)	25 (4.7)	1.9	0.92–3.9	
Excision of parametrium					
No	1016 (92.2)	29 (2.9)	1		0.11
Yes	86 (7.8)	8 (9.3)	2.1	0.8–5.2	
Ureteral reimplantation					
No	1087 (98.6)	34 (3.1)	1		0.09
Yes	15 (1.4)	3 (20)	3.5	0.8–15	

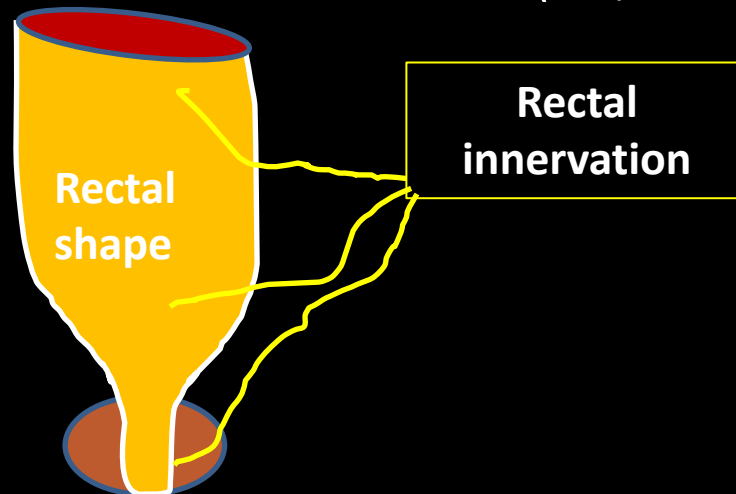
OR, odds ratio.

*OR cannot be estimated for the patient group without procedures on the digestive tract due to a lack of fistula in this group.

**Functional outcomes following
rectal surgery for DIE**

Functional outcomes: multifactorial concern

- Rectal function = major concern + huge impact on postoperative QoL
- Routinely overlooked before 2010
- Multifactorial:
 1. **Rectal shape:** type of surgical procedure carried out on the rectum
 2. **Rectal innervation:** possibility to carry out nerve sparing
 3. **Hidden preoperative functional troubles** (IBS, chronic constipation, etc)

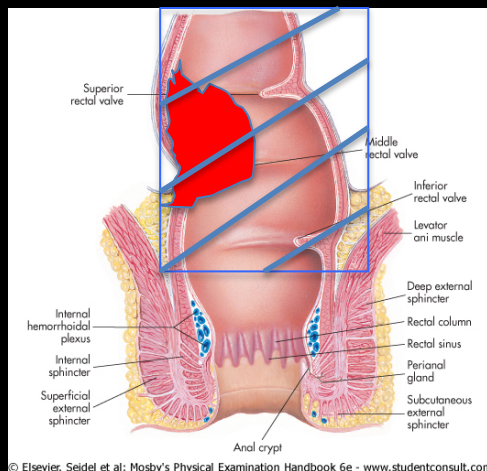


LARS: low anterior rectal resection syndrom

Surgery of low rectum may result in :

1. **Rectal denervation**: constipation, hypotonic rectum, major exoneration trouble
 2. **Rectosigmoid Stenosis** : constipation, dyschesia
 3. **Reduction of rectal reservoir**: frequent bowel movements, urgency
 4. **Risk for faecal incontinence and urgency**
- + **preoperative voiding troubles** (anal sphincter hypertonia, dyssynergia, etc)

Avoiding postoperative rectal dysfunction = challenging, because multifactorial



Low Anterior Resection Syndrome: Current Management and Future Directions

Timothy J. Ridolfi, MD¹ Nicholas Berger, MD¹ Kirk A. Ludwig, MD¹

CLINICAL OPINION

www.AJOG.org

GENERAL GYNECOLOGY

Bowel dysfunction before and after surgery for endometriosis

Horace Roman, MD, PhD; Valérie Bridoux, MD, PhD; Jean Jacques Tuech, MD, PhD; Loic Marpeau, MD; Carla da Costa, MD; Guillaume Savoye, MD, PhD; Lucian Puscasiu, MD, PhD

LARS: low anterior rectal resection syndrom

LARS may be due to:

1. **Rectal denervation**: inadvertent section of splanchnic nerves in large nodules of parametria, rectosigmoid release, mesocolon section

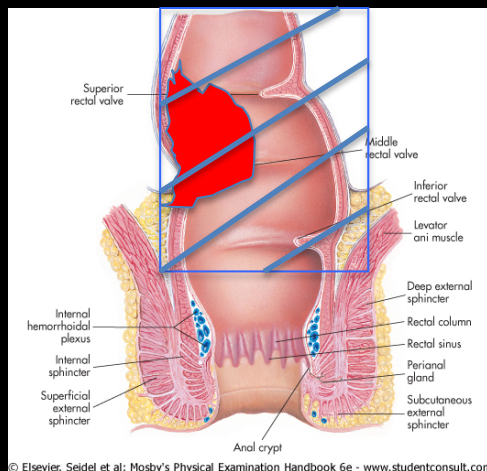
2. **Rectosigmoid Stenosis** : 10% of colorectal anastomosis, 0% of disc excision

Braund, Roman et al, JMIG 2020

3. **Reduction of rectal reservoir**: after colorectal resection, less after disc excision

D'Avout, Roman et al, JOGOH 2020

4. **Risk for faecal incontinence and urgency** : low and long colorectal resection => high intracolonic pressures directly impact on anal sphincter



Low Anterior Resection Syndrome: Current Management and Future Directions

Timothy J. Ridolfi, MD¹ Nicholas Berger, MD¹ Kirk A. Ludwig, MD¹

CLINICAL OPINION

www.AJOG.org

GENERAL GYNECOLOGY

Bowel dysfunction before and after surgery for endometriosis

Horace Roman, MD, PhD; Valérie Bridoux, MD, PhD; Jean Jacques Tuech, MD, PhD; Loic Marpeau, MD; Carla da Costa, MD; Guillaume Savoye, MD, PhD; Lucian Puscasiu, MD, PhD

Danish experience

Low anterior rectal resection syndrom

Unchanged LARS score 1 yr after the surgery...

Pelvic organ function before and after laparoscopic bowel resection for rectosigmoid endometriosis: a prospective, observational study

M Riiskjaer,^a S Greisen,^a M Glavind-Kristensen,^a US Kesmodel,^b A Forman,^a M Seyer-Hansen^a

Sample A cohort of 128 patients who underwent laparoscopic bowel resection for endometriosis.

surgery. Frequency of defecation was significantly increased 1 year after surgery ($P = 0.0001$), but the overall bowel function measured by LARS score was unchanged. Patients with anastomotic leakage had a significantly higher risk (odds ratio, $OR\ 5.40$; $P = 0.002$) of increased incontinence problems (I -score) 1 year after surgery.

Conclusion A significant and clinically relevant improvement in urinary and sexual function 1 year after laparoscopic bowel resection for endometriosis was found. Except for anastomotic leakage, this could be observed independent of any patient- or treatment-related factor. Apprehension about impairment of urinary and sexual function should not be a contraindication for bowel resection in endometriosis patients.

Table 4. Bowel function before and 1 year after surgery

	Before surgery		1 year after surgery		P*
	n	%	n	%	
Do you ever have occasions when you cannot control your flatus (wind)?					
No, never	48	38.7	27	22.9	0.01
Yes, less than once per week	27	21.8	35	29.7	
Yes, at least once per week	49	39.5	56	47.4	
Do you ever have any accidental leakage of liquid stool?					
No, never	90	72.0	90	79.2	0.51
Yes, less than once per week	22	17.6	22	18.6	
Yes, at least once per week	13	10.4	6	5.1	
How often do you open your bowels?					
More than 7 times per day (24 hours)	9	7.3	19	16.1	0.0001
4–7 times per day (24 hours)	24	19.4	42	35.6	
1–3 times per day (24 hours)	59	47.6	45	38.1	
Less than once per day (24 hours)	32	25.8	12	10.1	
Do you ever have to open your bowels again within 1 hour of the last bowel opening?					
No, never	32	26.0	23	19.5	0.02
Yes, less than once per week	43	35.0	34	28.8	
Yes, at least once per week	48	39.0	61	51.7	
Do you ever have such a strong urge to open your bowels that you have to rush to the toilet?					
No, never	20	16.1	22	18.8	0.09
Yes, less than once per week	35	28.2	40	34.2	
Yes, at least once per week	69	55.7	55	47.0	
No LARS	34	27.6	31	26.5	0.96
Minor LARS	34	27.6	32	27.4	
Major LARS	55	44.7	54	46.2	
LARS score, median	28		29		0.57

LARS score, range 0–42 (0–20, no LARS; 21–29, minor LARS; 30–42, major LARS).

Conservative approach vs. colorectal resection

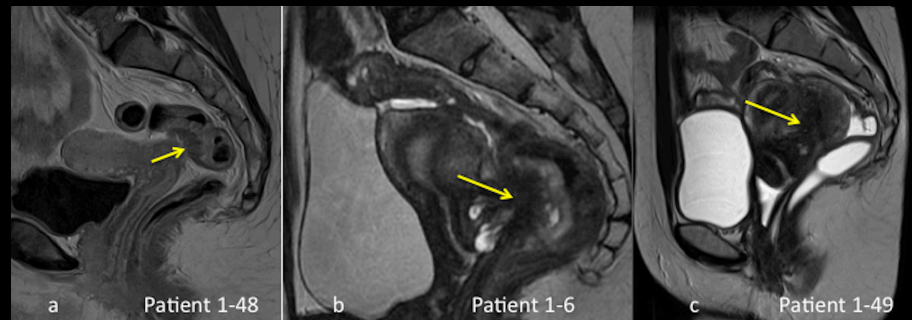
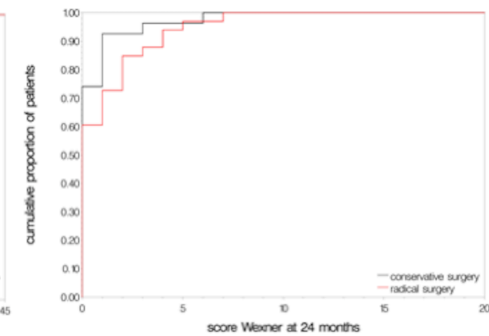
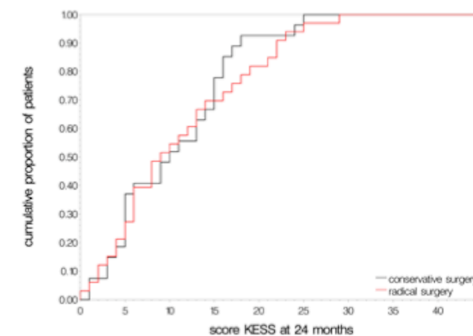
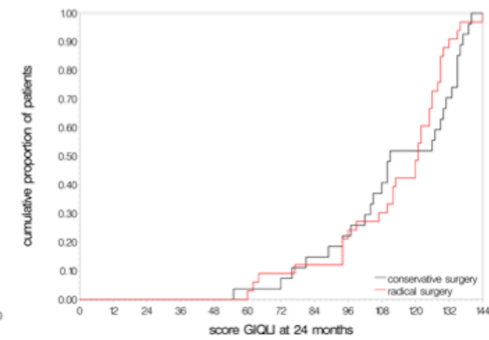
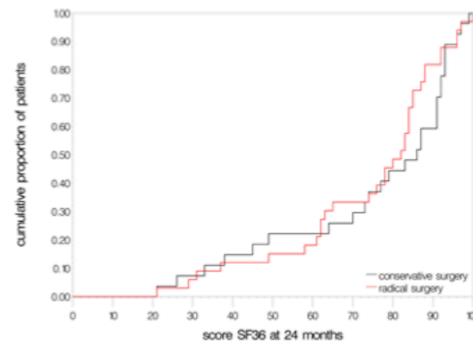
- ENDORE randomized trial *Hum Reprod* 2018
- 60 patientes randomized between conservative and radical approaches
- No significant difference in terms of overall digestive function
- **Significant risk of bowel stenosis after colorectal resection**
- Rextal shape is not the unique factor conditioning the rectal function

human reproduction

ORIGINAL ARTICLE *Gyneacology*

Conservative surgery versus colorectal resection in deep endometriosis infiltrating the rectum: a randomized trial

Horace Roman^{1,2,*}, Michael Bubenheim³, Emmanuel Huet⁴, Valérie Bridoux⁴, Chryssoula Zacharopoulou⁵, Emile Darai^{5,6,7}, Pierre Collinet⁸, and Jean-Jacques Tuech⁴



Long term improvement: ENDORE RCT

- 5 years follow up
- 1 recurrence / 60 patients
- Constant improvement in:

1. Pain
2. Gastrointestinal scores
3. Quality of life

4. 80% pregnancy rate
5. 75% pregnancy rate infertile women
6. A majority of which are natural conceptions

human
reproduction

ORIGINAL ARTICLE *Gynaecology*

Excision versus colorectal resection in deep endometriosis infiltrating the rectum: 5-year follow-up of patients enrolled in a randomized controlled trial

Horace Roman^{1,2,*}, Jean-Jacques Tuech³, Emmanuel Huet³,
Valérie Bridoux³, Haltham Khalil³, Clotilde Hennetier⁴,
Michael Bubenheim⁵, and Lacramioara Aurelia Branduse⁶

human
reproduction

ORIGINAL ARTICLE *Gynaecology*

High postoperative fertility rate following surgical management of colorectal endometriosis

Horace Roman^{1,*}, Isabella Chanavaz-Lacheray¹, Marcos Ballester^{2,3,4},
Sofiane Bendifallah^{2,3,4}, Salma Touleimat¹, Jean-Jacques Tuech⁵,
Marilena Farella¹, and Benjamin Merlot⁶

How about low rectum <8 cm height?

- **Low disc excision may be preferable to low rectal resection**
- 172 women with rectal nodules ≤8 cm height
- Low disc excision vs. low rectal resection: normal bowel movements were more likely

Symptoms	Rectal disc excision N= 108(62.8%)	Rectal segmental resection N= 64(37.2%)	*p-value
Frequency of defecation			
>7 times per day	1(0.9)	5(7.9)	<.001
4-7 times per day	7(6.4)	10(15.8)	
1-3 times per day	51(47.2)	37(58.7)	
<once per day	49(45.3)	11(17.4)	
Clustering of stools			
Never	50(46.3)	16(25.4)	.02
<once per week	28(25.9)	23(36.5)	
≥once per week	30(27.7)	24(38.1)	
Urgency			
Never	52(48.1)	22(34.9)	.05
<once per week	37(34.2)	20(31.7)	
≥once per week	19(17.6)	21(33.3)	
LARS score (0-42)			
No LARS 0-20	66(61.1)	27(42.9)	.04
Minor LARS 21-29	20(18.5)	21(33.3)	
Major LARS 30-42	22(20.3)	15(23.8)	

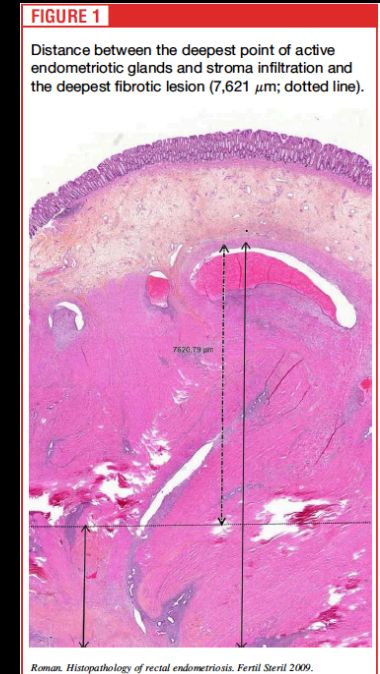
How about recurrences risk ?

- Residual microscopic endometriosis implants on the bowel:
- - a large majority of patients managed by shaving

Roman et al, Fertil Steril 2009

- - up to 40% of patients with disc excision have microscopic foci on the **limits/outside the disc removed**

Remorgida et al, Hum Reprod 2005
Roman et al, Dis Colon Rectum 2015



Is colorectal resection as radical as expected?

- Residual microscopic endometriosis implants on the bowel:
- - 15-31% of patients with CRR may have microscopic foci 3 cm far from the limits

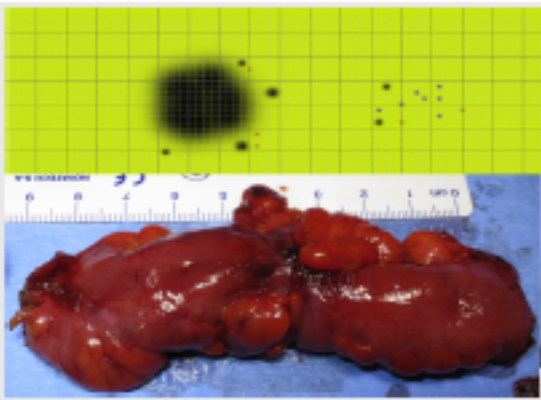
Roman et al, Fertil Steril 2015

Badescu et al, Fertil Steril 2015

Mabrouk et al, Hum Reprod 2012

➔ **Microscopic complete removal of endometriosis foci is not a realistic goal**

FIGURE 1



Mapping of bowel occult microscopic endometriosis implants surrounding deep endometriosis nodules infiltrating the bowel

Alexandra Badescu, M.D.,^{ab} Horace Roman, M.D., Ph.D.,^{ac} Moutaz Aziz, M.D.,^c Lucian Puscasiu, M.D., Ph.D.^b

Bowel occult microscopic endometriosis in resection margins in deep colorectal endometriosis specimens has no impact on short-term postoperative outcomes

Horace Roman, M.D., Ph.D.,^{ab} Clotilde Hennetier, M.D.,^a Basma Darwish, M.D.,^a Alexandra Badescu, M.D.,^{a,c} Marie Csanyi, M.D.,^a Moutaz Aziz, M.D.,^c Jean-Jacques Tuech, M.D., Ph.D.,^a and Carole Abo, M.D.^a



Original Article

Patterns of Bowel Invisible Microscopic Endometriosis Reveal the Goal of Surgery: Removal of Visual Lesions Only

Alexandra Badescu, MD, Horace Roman, MD, PhD, Iulia Barsan, MD, Valentin Soldea, MD, Serban Nastasia, MD, PhD, Moutaz Aziz, MD, Lucian Puscasiu, MD, PhD, and Simona Stolnicu, MD, PhD

JMIG The Journal of Minimally Invasive Gynecology

Title: Bowel Invisible Microscopic Endometriosis: Leave It Alone

Author: David B. Redwine, Elizabeth Hopton

PII: S1553-4650(18)30056-6

DOI: <https://doi.org/10.1016/j.jmig.2018.01.017>

Reference: JMIG 3404

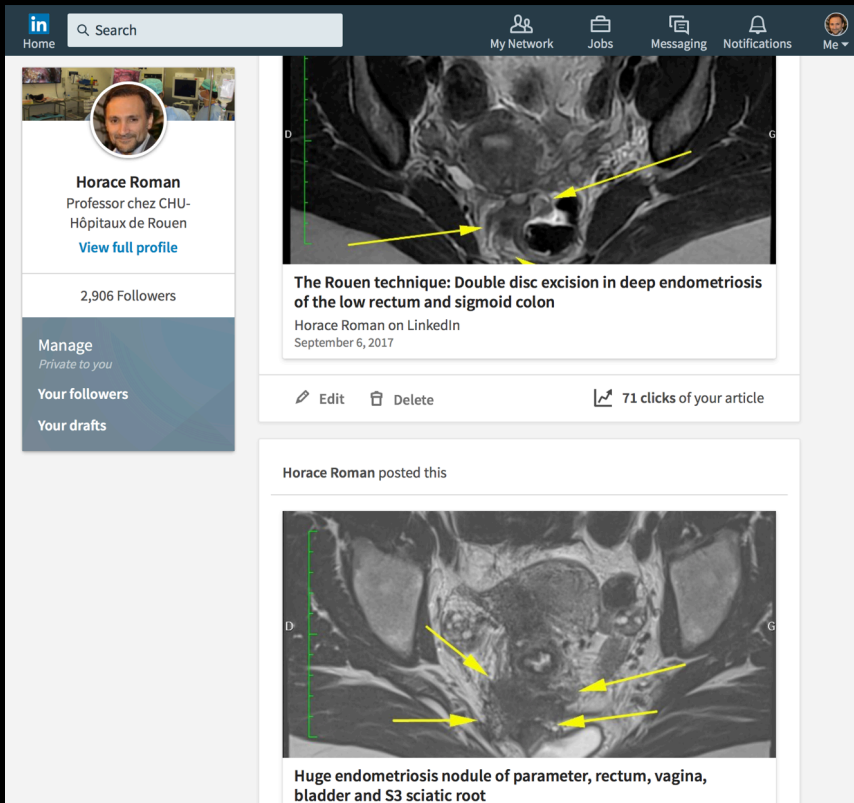
To appear in: *The Journal of Minimally Invasive Gynecology*

Conclusions

- Surgery of endometriosis: a **new specialty**, challenging and complex
- Minimally invasive approach: feasible in >99% of cases
- Young women, living as long as 50-60 years after your surgery: take care at their postoperative long term **quality of life!**
- **Disk excision using circular stapler: suitable and feasible** in 33% of cases on average
- **Immediate complications risk:** disk excision is comparable with segmental resection
- **Functional outcomes: multifactorial!** may be improved after disk excision in low rectum
- **No demonstrated benefit related to routine use of colorectal resection**
- **Balanced use of 3 techniques = individualized / custom made management**

500 procedures are available on...

- LinkedIn: Horace Roman
- YouTube: Roman + Horace + endometriosis



Horace Roman
Professor chez CHU-
Hôpitaux de Rouen
[View full profile](#)

2,906 Followers

Manage
Private to you

Your followers

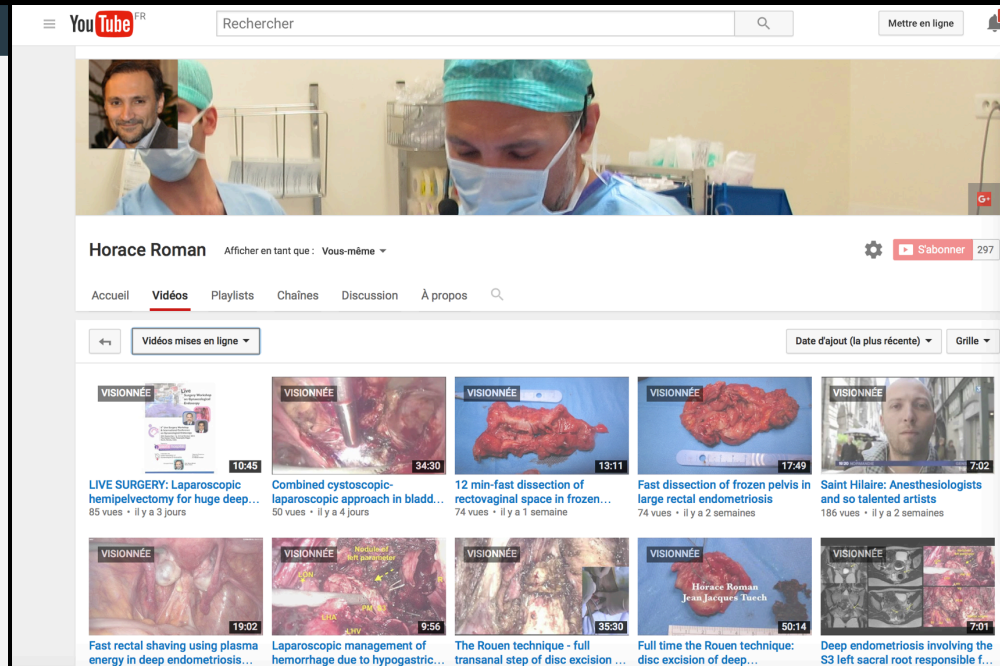
Your drafts

The Rouen technique: Double disc excision in deep endometriosis of the low rectum and sigmoid colon
Horace Roman on LinkedIn
September 6, 2017

Edit Delete 71 clicks of your article

Horace Roman posted this

Huge endometriosis nodule of parameter, rectum, vagina, bladder and S3 sciatic root



Horace Roman Afficher en tant que : Vous-même

Accueil **Vidéos** Playlists Chaînes Discussion À propos

Vidéos mises en ligne

Date d'ajout (la plus récente) Grille

- VISIONNÉE** 10:45
LIVE SURGERY: Laparoscopic hemipelvectomy for huge deep...
85 vues • il y a 3 jours
- VISIONNÉE** 34:30
Combined cystoscopic-laparoscopic approach in bladd...
50 vues • il y a 4 jours
- VISIONNÉE** 13:11
12 min-fast dissection of rectovaginal space in frozen...
74 vues • il y a 1 semaine
- VISIONNÉE** 17:49
Fast dissection of frozen pelvis in large rectal endometriosis
74 vues • il y a 2 semaines
- VISIONNÉE** 7:02
Saint Hilaire: Anesthesiologists and so talented artists
186 vues • il y a 2 semaines
- VISIONNÉE** 19:02
Fast rectal shaving using plasma energy in deep endometriosis...
- VISIONNÉE** 9:56
Laparoscopic management of hemorrhage due to hypogastric...
- VISIONNÉE** 38:30
The Rouen technique - full transanal step of disc excision ...
- VISIONNÉE** 50:14
Full time the Rouen technique: disc excision of deep...
- VISIONNÉE** 7:01
Deep endometriosis involving the S3 left sacral root responsible f...

Save the date with EEL in Bordeaux!

- 3-5 February 2021: EEL masterclass



EUROPEAN ENDOMETRIOSIS LEAGUE: EUROPEAN ENDOMETRIOSIS MASTERCLASS

Comité scientifique : Krentel H, Schäfer S, Salehin D, Oral E, Exacoustos C, Renner S, Bokor A, Roman H, , Tinneberg H, Keckstein J.

- 15-18 December 2021: 6th EEC

The poster for the 6th European Endometriosis Congress features a dark blue background with a photograph of a city square at night, likely in Bordeaux, France. The buildings are illuminated, and their lights reflect in a wet surface in the foreground. The EEL logo is at the top left. The text '6TH EUROPEAN ENDOMETRIOSIS CONGRESS' is prominently displayed in the center, with '6TH' in a large, white, stylized font. Below this, the date and location 'DECEMBER 2021 · BORDEAUX · FRANCE' are written in a smaller, white, sans-serif font. At the bottom, the text 'CONGRESS PRESIDENT: HORACE ROMAN' is visible. In the bottom left corner, the phrase 'Save the date' is written in a white, cursive font. At the bottom right, the website 'WWW.EEC2021.COM' is printed in a white, sans-serif font.



Merci

SRC
CENTER OF EXCELLENCE
MULTIDISCIPLINARY ENDOMETRIOSIS CARE
EXCELLENCE IN SAFETY, EFFICACY & EFFICIENCY

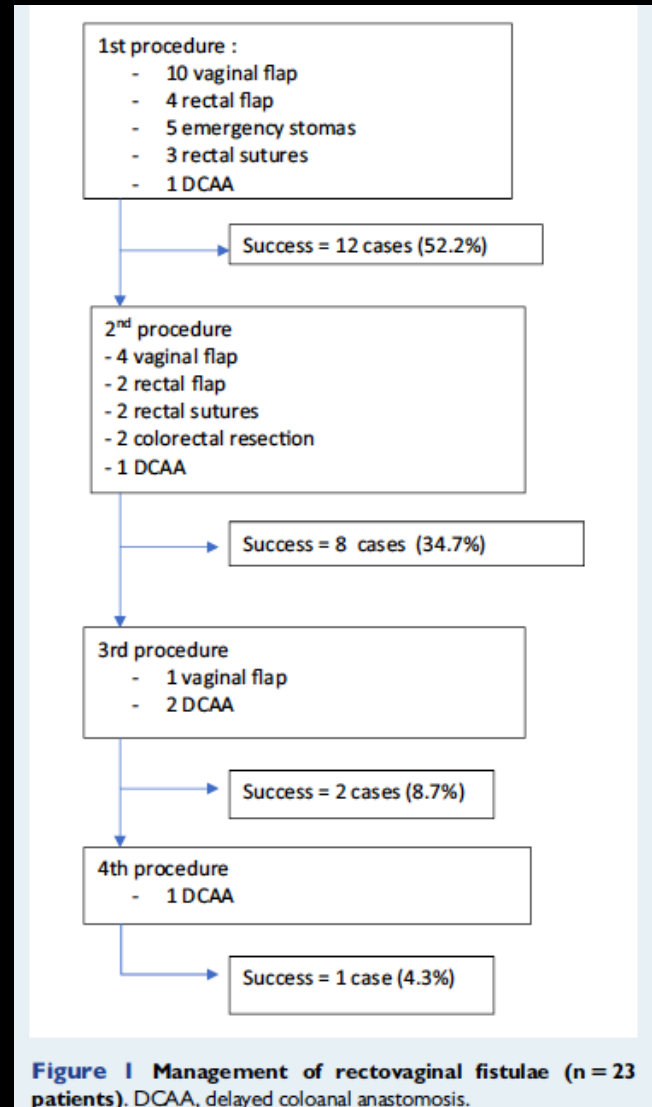
ifem
INSTITUT FRANCO-EUROPEEN MULTIDISCIPLINAIRE D'ENDOMETRIOSE
E N D O
SOINS - RECHERCHES - FORMATIONS



Bowel fistula repair

Rectovaginal fistula (RVF):

- - no terrific clinical symptoms
- – no peritonitis
- - but reparation may be challenging
- - stoma = median 10 months (Q1 8, Q3 13)
- - a half of cases had > 1 additional surgery



Bowel fistula repair

Bowel leakage

- - symptoms +, peritonitis
- - surgery in emergency
- - 12/14 one surgery= stoma
- - 2/14 had a second surgery (Colorectal resection, suture)
- - stoma= median 5 months (Q1 3, Q3 6)
- **Significantly shorter period of stoma when compared to RVF (P=0.008)**

Could stoma prevent fistula?

Could stoma reduce the risk of rectovaginal fistula in women with excision of deep endometriosis requiring concomitant vaginal and rectal sutures? A 363-patient comparative study

Horace Roman¹, Valerie Bridoux², Benjamin Merlot¹, Myriam Noailles¹, Eric Magne¹, Benoit Resch³, Damien Forestier¹, and Jean-Jacques Tuech⁴

- Probably not
- It prevents leakage / RVF-related complications
- 363 patients with rectal AND vaginal EXCISION/ RESECTION

- Unique risk factor:

Height of rectal suture

Table 4. Independent factors related to the probability of rectovaginal fistula (logistic regression model).

	Total N=363 (100%)	Rectovaginal fistula N=31 (8.5%)	OR	95%CI	P
Centre and use of preventive stoma					
Bordeaux without stoma	85 (23.4)	8 (9.4)	1		
Bordeaux with stoma	37 (10.2)	4 (10.8)	0.53	0.13-2.1	0.37
Rouen without stoma	69 (19)	7 (10.1)	1.3	0.42-3.9	0.66
Rouen with stoma	172 (47.4)	12 (7)	0.40	0.14-1.1	0.075
Height of colorectal anastomosis					
>= 8cm	173 (47.8)	9 (5.2)	1		
<8 cm	189 (52.2)	22 (11.6)	3.4	1.3-9.1	0.01
Procedures on the rectosigmoid					
Disc excision	162 (44.6)	15 (9.3)	1		
Segmental resection	181 (49.9)	14 (7.7)	1.1	0.49-2.5	0.79
Rectal disc excision + sigmoid resection	20 (5.5)	2 (6.5)	1.3	0.26-6.6	0.75
Vaginal infiltration					
<1 cm	45 (12.4)	3 (6.7)	1		
1-3 cm	89 (24.5)	6 (6.7)	1.1	0.26-4.9	0.88
>3cm	229 (63.1)	22 (9.6)	1.3	0.35-4.9	0.65
Surgery of sacral roots/sciatic nerves					
No	331 (91.2)	26 (7.8)	1		
Yes	32 (8.8)	5 (15.6)	1.8	0.58-5.6	0.31