



Syndrome de résection rectale : comment améliorer la qualité de vie des patients ?

Diane MEGE

Service de Chirurgie Digestive
hôpital Timone, Marseille



Faculté des sciences
médicales et paramédicales
Aix-Marseille Université

Hôpitaux
Universitaires
de Marseille | ap.
hm

LIENS D'INTERET

Aucun

OBJECTIFS PEDAGOGIQUES

Le syndrome de résection rectale

1. Connaître l'épidémiologie et les facteurs de risque
2. Connaître les manifestations cliniques
3. Savoir évaluer la sévérité
4. Connaître les explorations complémentaires
5. Connaître les principes de traitement

Le syndrome de résection rectale

1. **Connaître l'épidémiologie et les facteurs de risque**
2. Connaître les manifestations cliniques
3. Savoir évaluer la sévérité
4. Connaître les explorations complémentaires
5. Connaître les principes de traitement

Résultats fonctionnels apres proctectomie

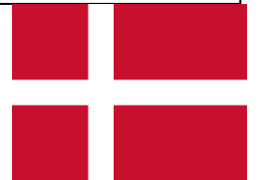
- Syndrome de résection antérieure:

58% (3 mois) → **46%** (12 mois)

Impact of bowel dysfunction on quality of life after sphincter-preserving resection for rectal cancer

K. J. Emmertsen and S. Laurberg on behalf of the Rectal Cancer Function Study Group*

British Journal of Surgery 2013; **100**: 1377–1387



- Dysfonction urinaire 8-31%
- Dysfonction sexuelle 11-68%

Pallisera-Lloveras et al. *BMC Urology* (2019) 19:75

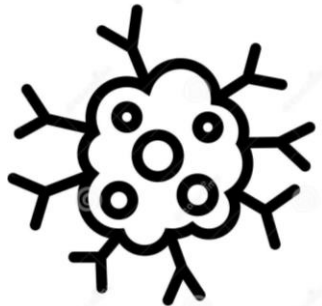


FDR de syndrome de résection rectale

1/ Terrain



2/ Volume tumoral

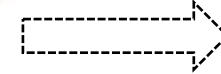


3/ Radiothérapie



4/ Type d'exérèse
(longueur restante)

5/ Stomie de protection



6/ Complications
post-opératoires

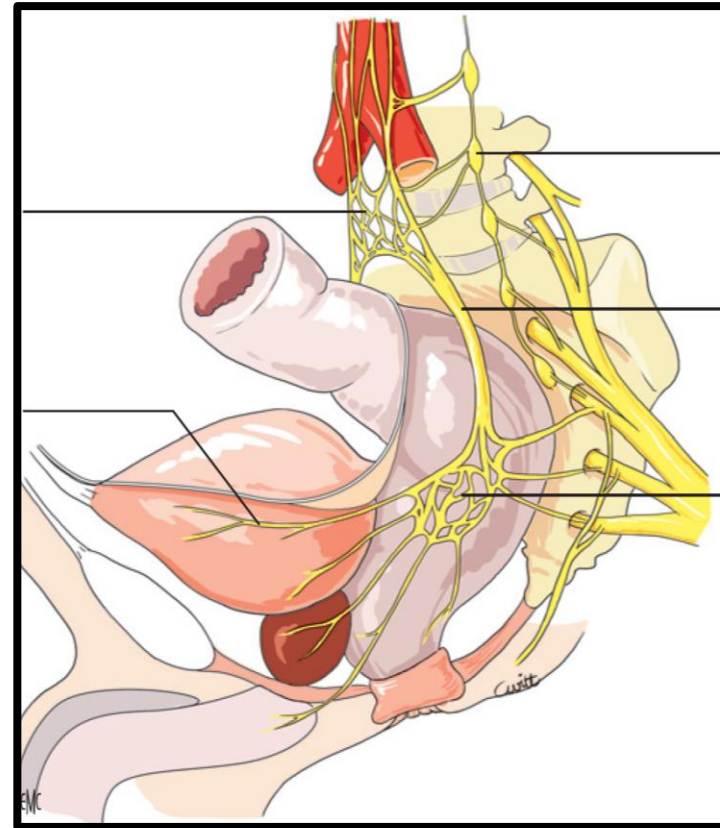
1- Le terrain

- **Age > 70 ans**
- **Sexe féminin:** parité, traumatismes obstétricaux
- **Antécédent de chirurgie anale**

2- Le volume tumoral important



→ Risque de lésions nerveuses!!



3- La radiothérapie préopératoire

→ sclérose pelvienne d'apparition et aggravation **± tardives!!!!**

	Major LARS* (n = 84)	Crude OR for major LARS†	Adjusted OR for major LARS†
Sex			
M	51 (61)	1.00 (reference)	1.00 (reference)
F	33 (39)	0.81 (0.45, 1.46)	0.73 (0.39, 1.38)
Neoadjuvant therapy			
No	62 (74)	1.00 (reference)	1.00 (reference)
Yes	22 (26)	3.55 (1.53, 8.22)	2.41 (1.00, 5.83)
Surgical technique			
Partial mesorectal excision	17 (20)	1.00 (reference)	1.00 (reference)
Total mesorectal excision	67 (80)	3.56 (1.84, 6.91)	2.81 (1.35, 5.88)
Anastomotic leakage			
No	81 (96)	1.00 (reference)	1.00 (reference)
Yes	3 (4)	0.42 (0.11, 1.64)	0.43 (0.10, 1.81)
Neorectal reservoir			
Straight (end-to-end) anastomosis	31 (37)	1.00 (reference)	1.00 (reference)
Colonic J-pouch/side-to-end anastomosis	53 (63)	1.97 (1.09, 3.57)	1.17 (0.59, 2.30)

Low Anterior Resection Syndrome Score

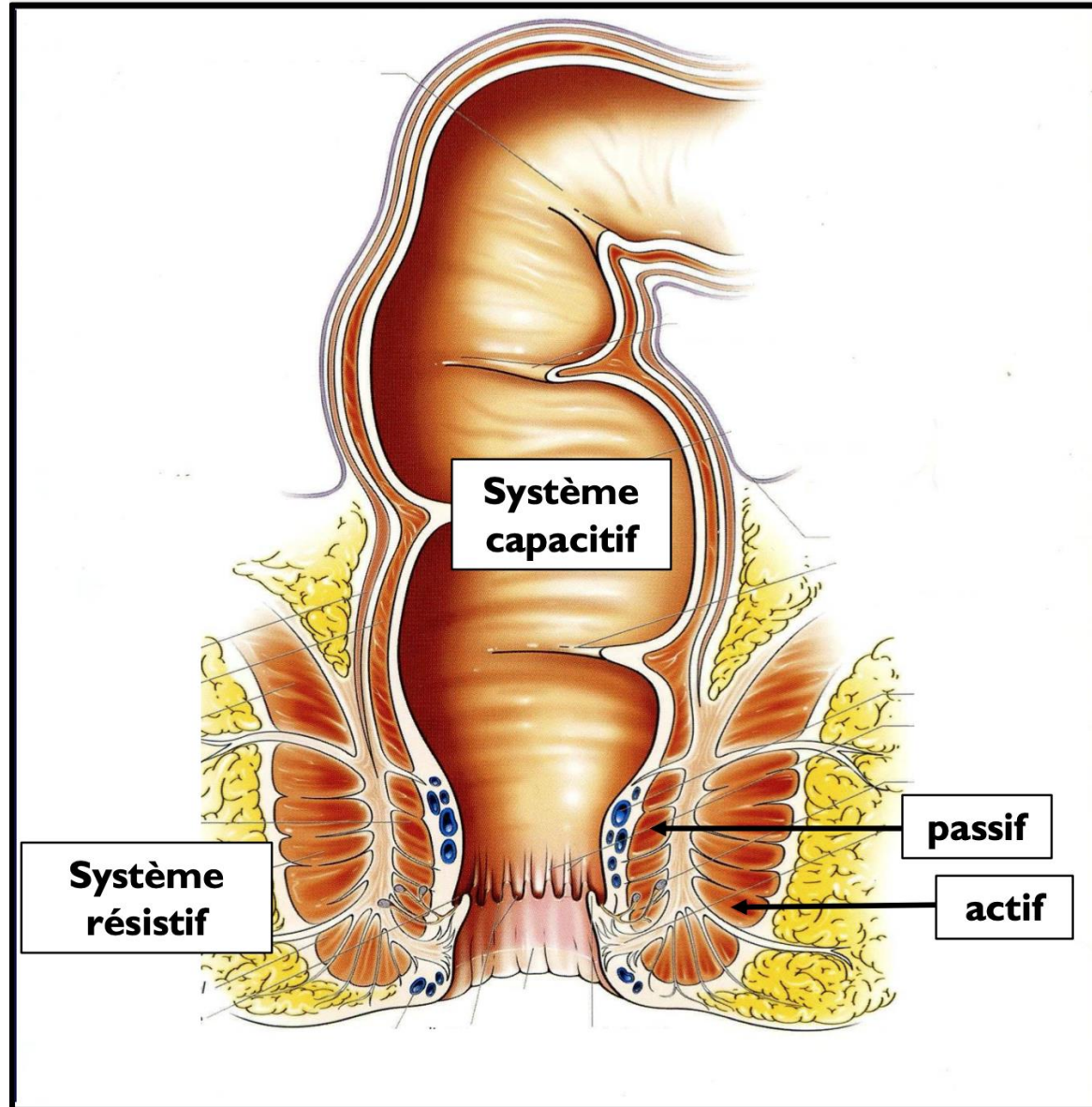
Development and Validation of a Symptom-Based Scoring System for Bowel Dysfunction After Low Anterior Resection for Rectal Cancer

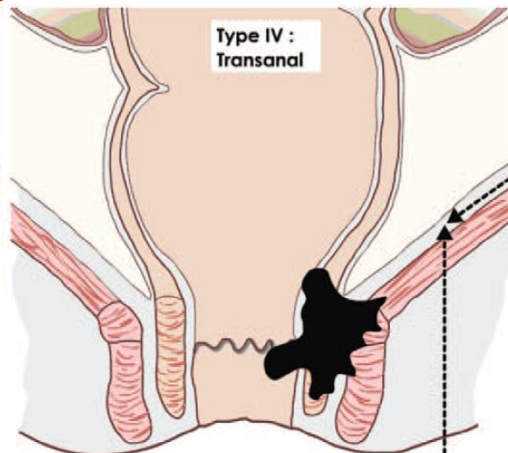
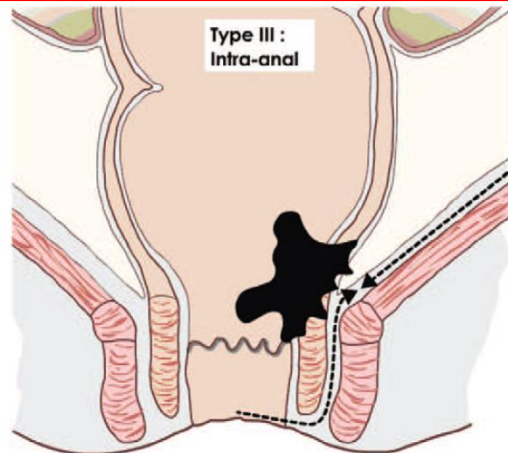
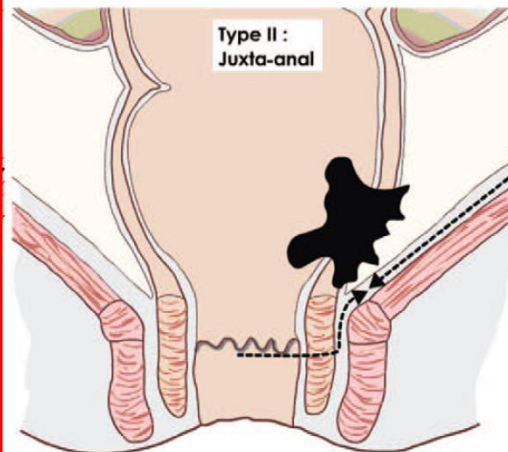
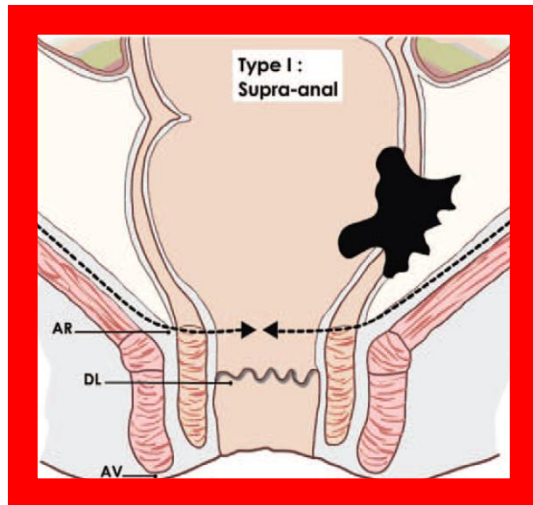
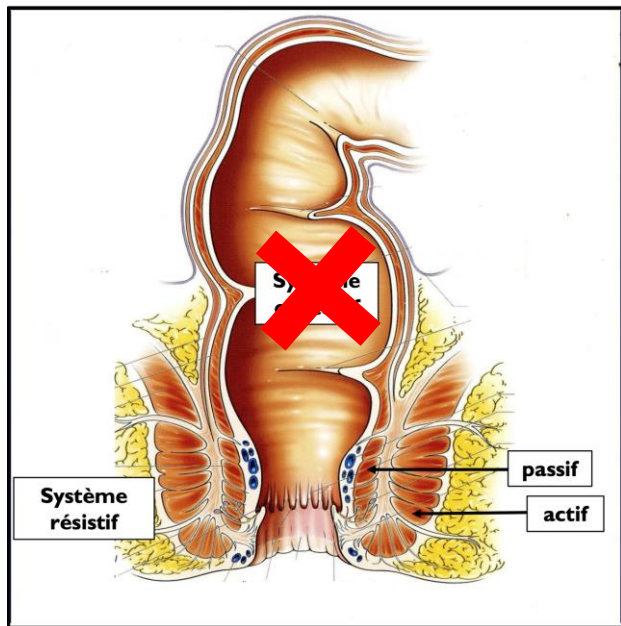
Katrine J. Emmertsen, MD,† and Soren Laurberg, MD**

Ann Surg 2012;255:922–928



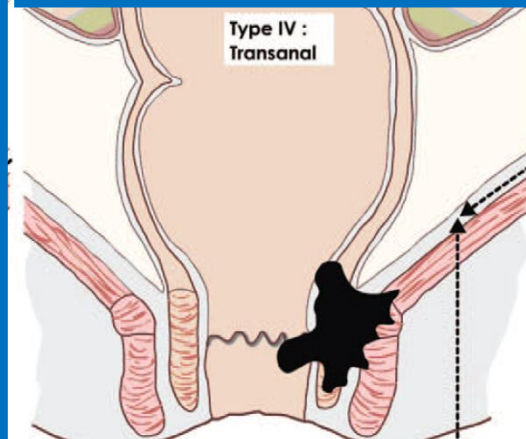
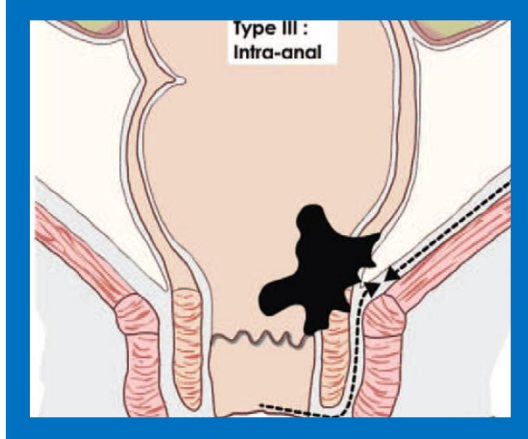
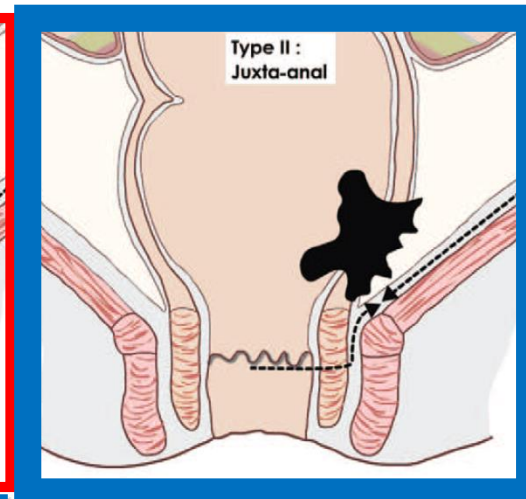
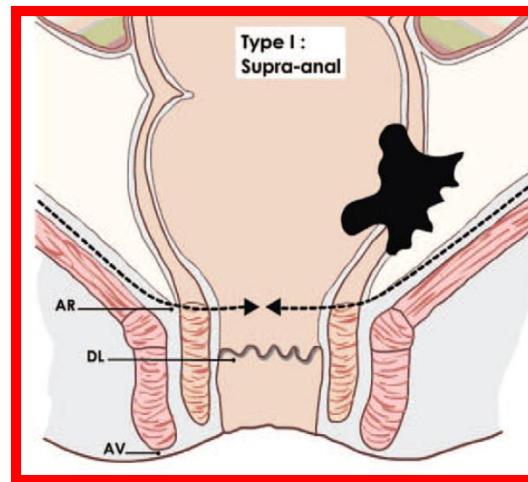
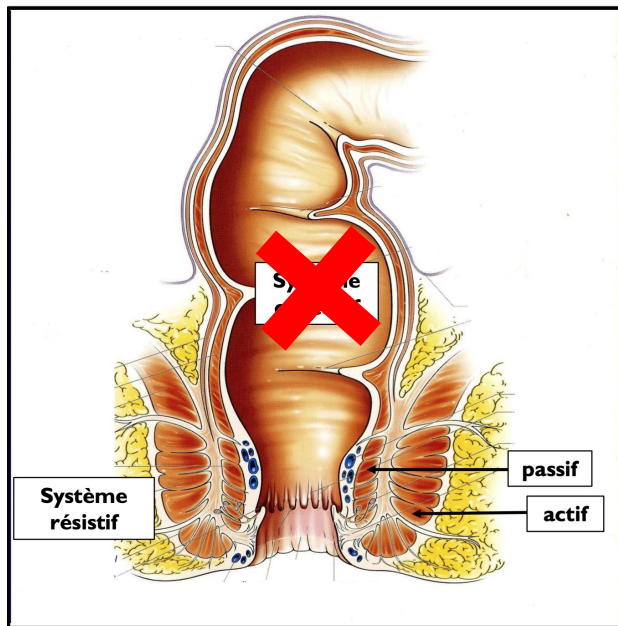
4- Le type d'exérèse



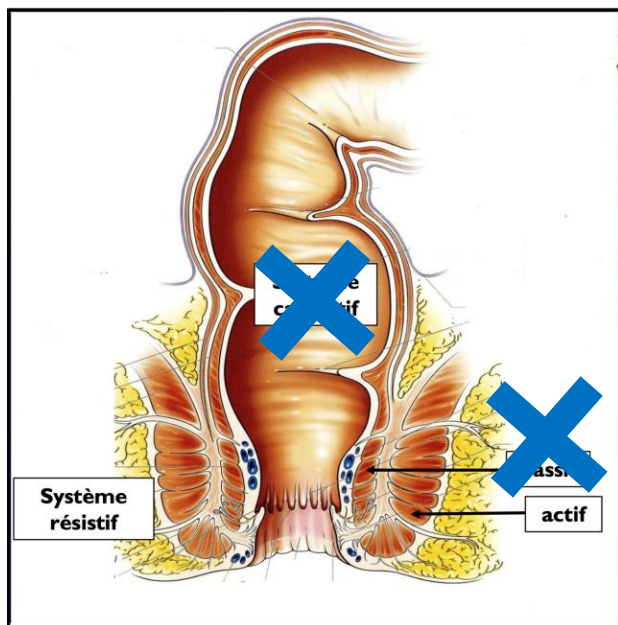


Dis Colon Rectum 2013; 56: 560–567





Dis Colon Rectum 2013; 56: 560–567

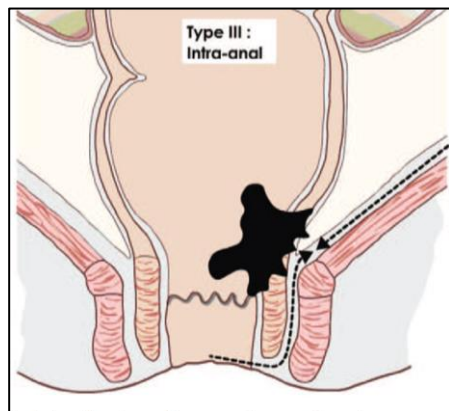


4- La longueur du rectum restant

Risk Factors for Fecal Incontinence After Intersphincteric Resection for Rectal Cancer

Quentin Denost, M.D.¹ • Christophe Laurent, M.D., Ph.D.¹
 Maylis Capdepon, C.R.A.¹ • Frank Zerbib, M.D., Ph.D.² • Eric Rullier, M.D.¹

DISEASES OF THE COLON & RECTUM VOLUME 54: 8 (2011)



Facteurs prédictifs d'incontinence:

- **Distance tumorale <1cm de l'appareil sphinctérien (OR=5.88 (1.75-19.8), p=0.004)**
- **Hauteur de l'anastomose <2cm de la marge anale (OR=6.59 (1.12-38.67), p=0.37)**

	Total n	Good outcome n (%)	P
Age			0.252
≤65 years	55	29 (52.7)	
>65 years	46	19 (41.3)	
Sex			0.605
Male	69	34 (49.3)	
Female	32	14 (43.8)	
Body mass index (kg/m ²) ^a			0.404
≤25	46	24 (52.2)	
>25	46	20 (43.5)	
Preoperative radiotherapy			0.472
Yes	93	43 (46.2)	
No	8	5 (62.5)	
Tumor category			1.000
T1-2	10	5 (50.0)	
T3-4	91	43 (47.3)	
Tumor location			0.764
Anterior	36	15 (41.7)	
Posterior	37	18 (48.6)	
Lateral	25	13 (52.0)	
Circumferential	3	2 (66.7)	
Distance from anal verge			0.020
<4 cm	48	17 (35.4)	
≥4 cm	53	31 (58.5)	
Distance from anal ring			0.002
≤1 cm	78	30 (38.5)	
>1 cm	23	18 (78.3)	
Involved internal sphincter			0.111
Yes	24	8 (33.3)	
No	77	40 (51.9)	
Surgical approach			0.494
Laparoscopy	66	33 (50.0)	
Open procedure	35	15 (42.9)	
Colonic pouch			0.315
Yes	82	37 (45.1)	
No	19	11 (57.9)	
Intersphincteric resection			0.183
Total	34	13 (38.2)	
Partial	67	35 (52.2)	
Anastomotic height from anal verge			0.025
≤2 cm	81	34 (42)	
>2 cm	20	14 (70)	
Specimen extraction			0.344
Abdominal	69	34 (49)	
Transanal	32	19 (59)	
Pelvic sepsis			0.452
Yes	18	10 (55.6)	
No	83	38 (45.8)	

5- La stomie de protection

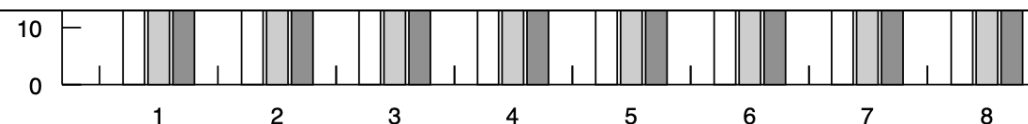
Quality of life after low anterior resection with total mesorectal excision and temporary loop ileostomy for rectal carcinoma

Etude « GRECCAR 17 »

ESSAI RANDOMISÉ DE PHASE III ÉVALUANT L'UTILISATION SÉLECTIVE VERSUS SYSTÉMATIQUE DE LA STOMIE DE DÉRIVATION APRÈS EXÉRÈSE TOTALE DU MÉSOPECTUM POUR CANCER DU RECTUM



Résection rectale avec anastomose **non** iléoprotégée



Résection rectale avec anastomose **iléoprotégée**

6- Les complications post-opératoires



Outcome and late functional results after anastomotic leakage following mesorectal excision for rectal cancer

A. Nesbakken, K. Nygaard and O. C. Lunde

British Journal of Surgery 2001, 88, 400–404

- 1993-1998; 92 proctectomies → **17 (18%) fistules anastomotiques**

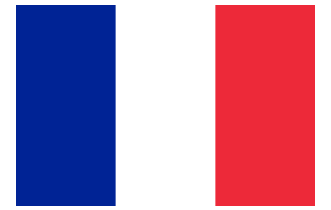
→ N=11 après fermeture de stomie vs controles sans fistule (n=11)

→ Résultats à 12-48 mois

	Leakage (n= 11)	Controls (n= 11)	P*
Resting pressure (mmHg)	52 (43–82)	59 (30–90)	0.75
Squeeze pressure (mmHg)	105 (65–150)	115 (30–190)	0.81
Initial sensation (ml)	25 (20–50)	44 (10–100)	0.13
Urge to defaecate (ml)	70 (40–110)	100 (50–280)	0.07
Maximum tolerable volume (ml)	120 (70–230)	180 (80–280)	0.04
Bowel movements (per day)	2.5 (0.5–4)	2.5 (0.5–3)	0.33

	Leakage (n= 11)	Controls (n= 11)	P*
Ability to defer defaecation	50 (5–100)	86 (10–100)	0.09
Ability to expel stool	73 (14–97)	82 (7–100)	0.40
Feeling of complete evacuation	30 (5–75)	66 (4–100)	0.02
Painful defaecation	95 (73–100)	94 (5–100)	0.18
Incontinence	80 (45–100)	93 (50–100)	0.06

6- Les complications post-opératoires



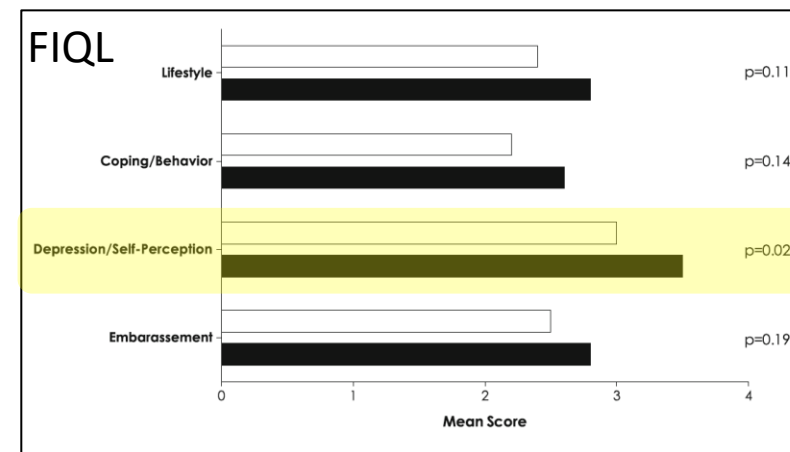
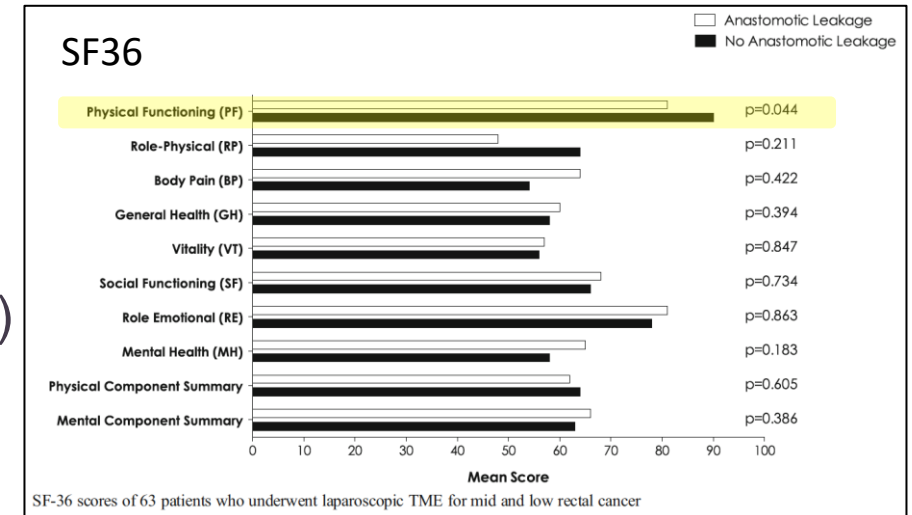
Does anastomotic leakage impair functional results and quality of life after laparoscopic sphincter-saving total mesorectal excision for rectal cancer? A case-matched study

Cécile Mongin • Léon Maggiori • Julie Agostini • Marianne Ferron • Yves Panis

Int J Colorectal Dis (2014) 29:459–467

- Patients avec fistule anastomotique
 - Appariés (sexe, IMC, ypTNM, tmt néoadjuvant, anastomose)
- Suivi médian de 30 mois

	Anastomotic leakage (n=21)	No anastomotic leakage (n=42)	p value
Gas incontinence	3 ± 1 ^a	2.52 ± 2	0.236
Liquid incontinence	2.24 ± 2	1.62 ± 1	0.123
Solid incontinence	1.57 ± 2	1.10 ± 1	0.224
Use of pads	2.90 ± 2	1.93 ± 2	0.043
Lifestyle alteration	1.95 ± 1	1.74 ± 1	0.527
Total Wexner's score	11.6 ± 5	8.9 ± 6	0.100



Le syndrome de résection rectale

1. Connaître l'épidémiologie et les facteurs de risque
- 2. Connaître les manifestations cliniques**
3. Savoir évaluer la sévérité
4. Connaître les explorations complémentaires
5. Connaître les principes de traitement

International Consensus Definition of Low Anterior Resection Syndrome

Celia Keane, M.B.Ch.B.¹ • Nicola S. Fearnhead, D.M.²

Liliana G. Bordeianou, M.D., M.P.H.³ • Peter Christensen, DM.Sci.⁴

Eloy Espin Basany, M.D.⁵ • Søren Laurberg, M.D., D.M.Sc.⁴

Anders Mellgren, M.D., Ph.D.⁶ • Craig Messick, M.B.Ch.B., M.D.⁷

Guy R. Orangio, M.D.⁸ • Azmina Verjee, B.Sc.⁹ • Kirsty Wing, B.Nurs.¹⁰

Ian Bissett, M.B.Ch.B., M.D.^{1,11} on behalf of the LARS International

Collaborative Group*

DISEASES OF THE COLON & RECTUM VOLUME 63: 3 (2020)



Low Anterior Resection Syndrome

Symptoms



Variable, unpredictable bowel function



Emptying difficulties



Altered stool consistency



Urgency



Increased stool frequency



Incontinence



Repeated painful stools



Soiling

Consequences

Impact on:



Toilet dependence



Mental and emotional wellbeing



Preoccupation with bowel function



Social and daily activities



Dissatisfaction with bowels



Relationships and intimacy



Strategies and compromises



Roles, commitments and responsibilities

At least one of these symptoms resulting in at least one of these consequences

Low Anterior Resection Syndrome

Symptoms

- 1/ transit variable
- 2/ consistance des selles variable
- 3/ fréquence augmentée des selles
- 4/ défécations répétées et douloureuses
- 5/ évacuation incomplète
- 6/ impériosités
- 7/ incontinence
- 8/ soiling

Consequences

Impact on:



Toilet dependence



Mental and emotional wellbeing



Preoccupation with bowel function



Social and daily activities



Dissatisfaction with bowels



Relationships and intimacy



Strategies and compromises



Roles, commitments and responsibilities

At least one of these symptoms resulting in at least one of these consequences

Low Anterior Resection Syndrome

Symptoms

- 1/ transit variable
- 2/ consistance des selles variable
- 3/ fréquence augmentée des selles
- 4/ défécations répétées et douloureuses
- 5/ évacuation incomplète
- 6/ impériosités
- 7/ incontinence
- 8/ soiling

Consequences

- 1/ dépendance aux toilettes
- 2/ préoccupation
- 3/ insatisfaction
- 4/ recherche de stratégies
- 5/ impact sur le bien-être
- 6/ impact sur les activités sociales et quotidiennes
- 7/ impact sur l'intimité
- 8/ impact sur les responsabilités

At least one of these symptoms resulting in at least one of these consequences

Autres diagnostics

Sténose anastomotique

- Constipation terminale
- Fragmentation

Réservoir trop grand

- Incontinence anale passive

Récidive tumorale

Le syndrome de résection rectale

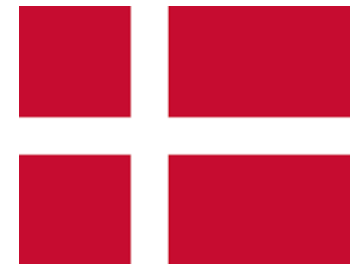
1. Connaître l'épidémiologie et les facteurs de risque
2. Connaître les manifestations cliniques
3. **Savoir évaluer la sévérité**
4. Connaître les explorations complémentaires
5. Connaître les principes de traitement

Low Anterior Resection Syndrome Score

Development and Validation of a Symptom-Based Scoring System for Bowel Dysfunction After Low Anterior Resection for Rectal Cancer

Katrine J. Emmertsen, MD,† and Søren Laurberg, MD**

Ann Surg 2012;255:922–928



Add the scores from each 5 answers to one final score.

Do you ever have occasions when you cannot control your flatus (wind)?

- | | |
|---|---|
| <input type="checkbox"/> No, never | 0 |
| <input type="checkbox"/> Yes, less than once per week | 4 |
| <input type="checkbox"/> Yes, at least once per week | 7 |

Do you ever have any accidental leakage of liquid stool?

- | | |
|---|---|
| <input type="checkbox"/> No, never | 0 |
| <input type="checkbox"/> Yes, less than once per week | 3 |
| <input type="checkbox"/> Yes, at least once per week | 3 |

How often do you open your bowels?

- | | |
|---|---|
| <input type="checkbox"/> More than 7 times per day (24 hours) | 4 |
| <input type="checkbox"/> 4–7 times per day (24 hours) | 2 |
| <input type="checkbox"/> 1–3 times per day (24 hours) | 0 |
| <input type="checkbox"/> Less than once per day (24 hours) | 5 |

Do you ever have to open your bowels again within one hour of the last bowel opening?

- | | |
|---|----|
| <input type="checkbox"/> No, never | 0 |
| <input type="checkbox"/> Yes, less than once per week | 9 |
| <input type="checkbox"/> Yes, at least once per week | 11 |

Do you ever have such a strong urge to open your bowels that you have to rush to the toilet?

- | | |
|---|----|
| <input type="checkbox"/> No, never | 0 |
| <input type="checkbox"/> Yes, less than once per week | 11 |
| <input type="checkbox"/> Yes, at least once per week | 16 |

Total Score:

Interpretation:

- | | |
|--------|------------|
| 0–20: | No LARS |
| 21–29: | Minor LARS |
| 30–42: | Major LARS |

Fuite de gaz

Fuite de selles liquides

Fréquence des selles

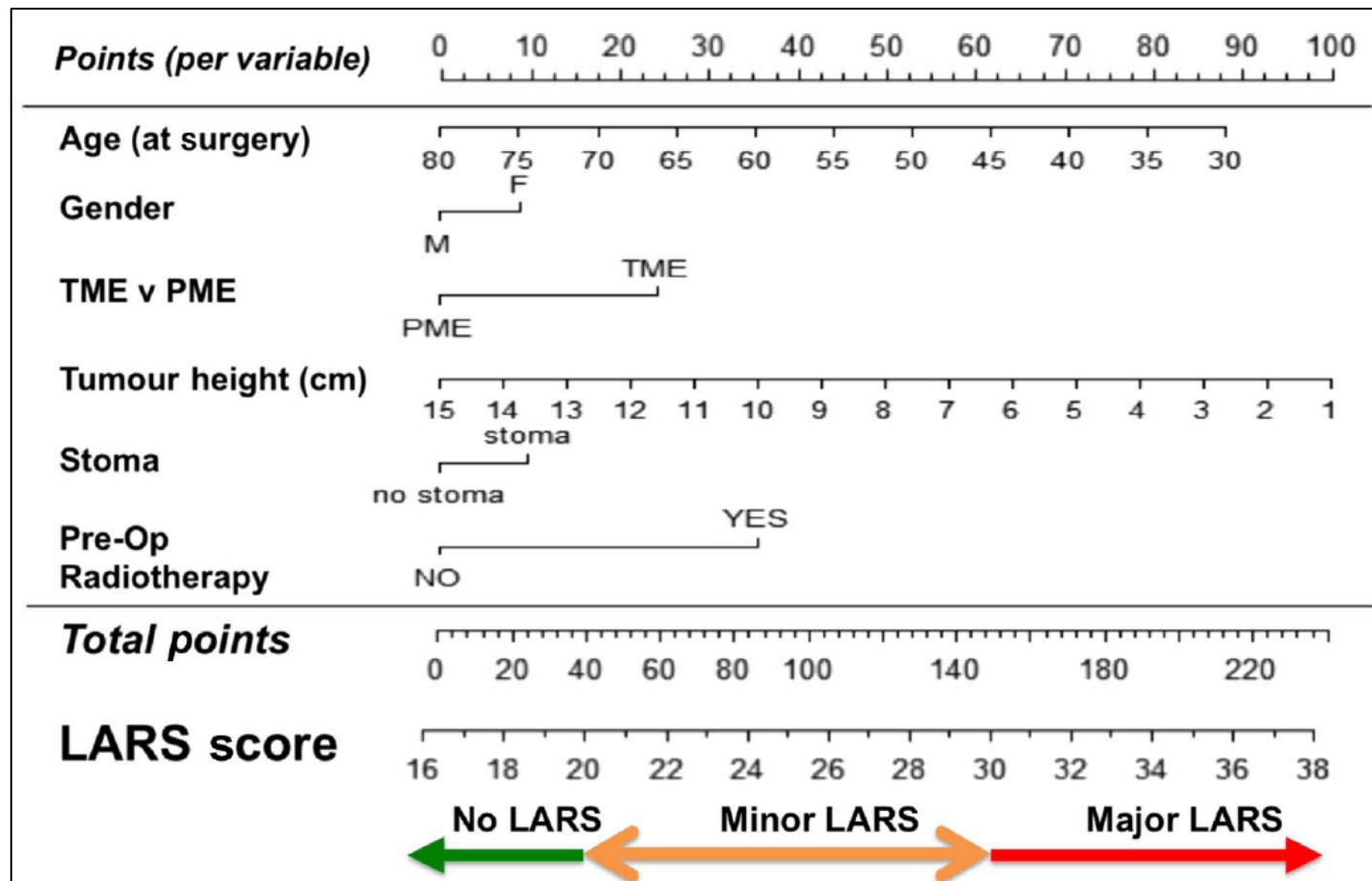
Fragmentation

Impériosité



Development and external validation of a nomogram and online tool to predict bowel dysfunction following restorative rectal cancer resection: the POLARS score *Gut* 2017;0:1–9.

Nick J Battersby,^{1,2} George Bouliotis,³ Katrine J Emmertsen,⁴ Therese Juul,⁴ Rob Glynn-Jones,⁵ Graham Branagan,⁶ Peter Christensen,⁴ Søren Laurberg,⁴ Brendan J Moran,^{1,2} on behalf of the UK and Danish LARS Study Groups



Le syndrome de résection rectale

1. Connaître l'épidémiologie et les facteurs de risque
2. Connaître les manifestations cliniques
3. Savoir évaluer la sévérité
4. **Connaître les explorations complémentaires**
5. Connaître les principes de traitement

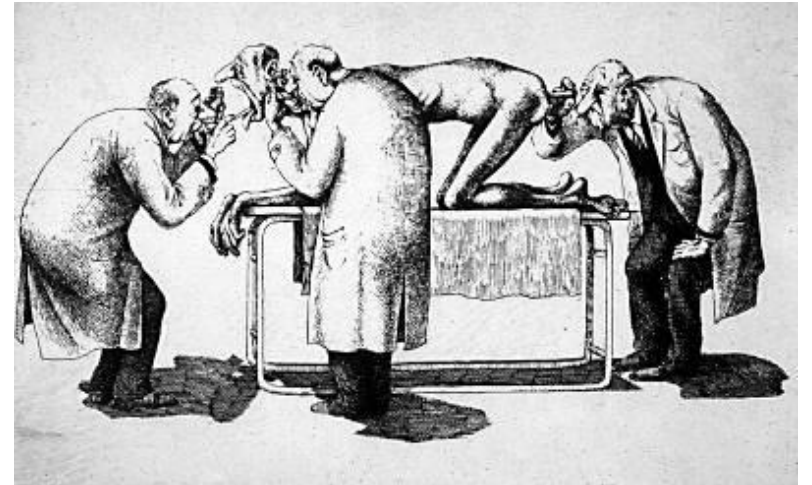
**ELIMINER UNE STENOSE ET/OU UNE
RECIDIVE +++++**

A l'examen physique....

→ **TOUCHER RECTAL +++**

- Récidive?
- Sténose anastomotique?
- Vacuité rectale?
- Tonus de repos? Contraction volontaire?

→ Phénomènes érosifs péri-anaux? (brûlures, prurit)



Examens complémentaires

- **Endoscopie + biopsies** → Sténose? Fistule? Récidive?
- **Imagerie** (scanner ± balisé, IRM, Pet-scan)
- **Manométrie anorectale**

Le syndrome de résection rectale

1. Connaître l'épidémiologie et les facteurs de risque
2. Connaître les manifestations cliniques
3. Savoir évaluer la sévérité
4. Connaître les explorations complémentaires
5. **Connaître les principes de traitement**

- 1. RHD & Traitements médicaux**
- 2. Rééducation**
- 3. Irrigation colique rétrograde**
- 4. Injection de toxine botulique**
- 5. Stimulation tibiale postérieure**
- 6. Neuromodulation des racines sacrées**
- 7. Irrigation colique antérograde**
- 8. Stomie définitive**

1- RHD & Traitements médicaux

- Amélioration possible avec le temps!!
- PEC diététique: Régime sans résidu – Riche en fibres
- Traitement des lésions dermatologiques
 - Savons surgras neutres
 - Séchage de la peau sans frotter
 - Assécher (*Eosine*)
 - Pommades cicatrisantes (*Ialuset crème, Biafine-Questran*)

1- RHD & Traitements médicaux

- Régulariser le transit
 - Ralentisseurs du transit (Lopéramide ++)
 - Chélateurs biliaires (Cholestyramine)
 - Anti 5-HT3 (sétron)
 - Laxatifs (mucilages++)

- Vacuité rectale
 - Suppositoires (*Eductyl*), minilavement (*Microlax*), Lavements à l'eau

- Obturateurs anaux inefficaces en cas de selles liquides!!!!

2- Rééducation anoperinéale

>6-12 mois

Component	Acronym	Expected benefit
Pelvic floor muscle training	PFMT	May reduce leakage by improving the structural support, timing and strength of automatic contractions
Biofeedback training	BF	Can help patients by optimizing their motor response through visual and hearing signals, lowering the threshold for the discrimination of a rectal sensation of distension and synchronizing voluntary contraction of the external anal sphincter in response to such distension
Rectal balloon training	RBT	May improve rectal sensitivity by stepwise reductions in rectal balloon distension, in order to distinguish smaller rectal volumes, tolerate urgency by using progressive distension or using a voluntary anal squeeze to counteract the recto-anal inhibitory reflex in response to rectal filling

3- Irrigation colique rétrograde

→ Effet évacuateur avec augmentation de la motricité colique en réponse à la distension rectale et au large volume d'eau instillée

- > 3 mois postopératoires **Acceptation du patient!!!!**
- Douleurs abdominales 20-40%
- Saignements minimes 28%

Contre-indications:

Sténose; Cancer présent; MICI; Diverticulite aiguë; Colite ischémique



TR → éliminer un fécalome

Volume initial 300cc → max 500cc

Quotidien les 10 premiers jours
→ /2-3 jours

± obturateurs anaux

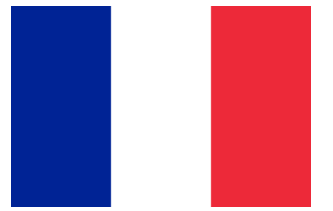
4- Injection de toxine botulique

Toxine botulique A



- Neurotoxine protéique sécrétée par *Clostridium botulinum* inhibant la recapture présynaptique de l'acétylcholine → relaxation sphinctérienne durable
- 500UI diluées dans 10ml NaCl → 10 injections 1ml
- À 1, 5 et 10 cm de l'anastomose colo-anale
- Hémicirconférentielle
- Injection sous-muqueuse
- Possibilité de répéter le geste à 6 mois

4- Injection de toxine botulique



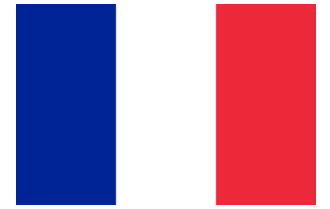
Botulinum A toxin as a treatment for overactive rectum with associated faecal incontinence

V. Bridoux*, G. Gourcerol†, B. Kianifard*, J.-Y. Touchais†, P. Ducrotte†, A.-M. Leroi†, F. Michot* and J.-J. Tuech*

Colorectal Disease © 2011

Patient	Gender	Age (years)	Previous anorectal surgery	State of the rectum or of the neorectum	State of the anal sphincter
1	F	60	STARR (2 years)	Anterior and posterior scar	EAS: intact IAS: intact
2	F	61	AAS (7 months)	Intact native rectum	AAS
3	F	59	Radiotherapy, proctectomy with ISR (8 months)	Micro-reservoir Latero-terminal colo-anal anastomosis	EAS: intact IAS: resected
4	M	66	Radiotherapy, proctectomy (22 months)	Micro-reservoir Latero-terminal colo-anal anastomosis	EAS: intact IAS: intact
5	M	38	Radiotherapy, proctectomy (5 years)	Termino terminal straight coloanal anastomosis	EAS: intact IAS: intact
6	M	56	Radiotherapy, proctectomy	Micro-reservoir Latero-terminal coloanal anastomosis	EAS: intact IAS: intact

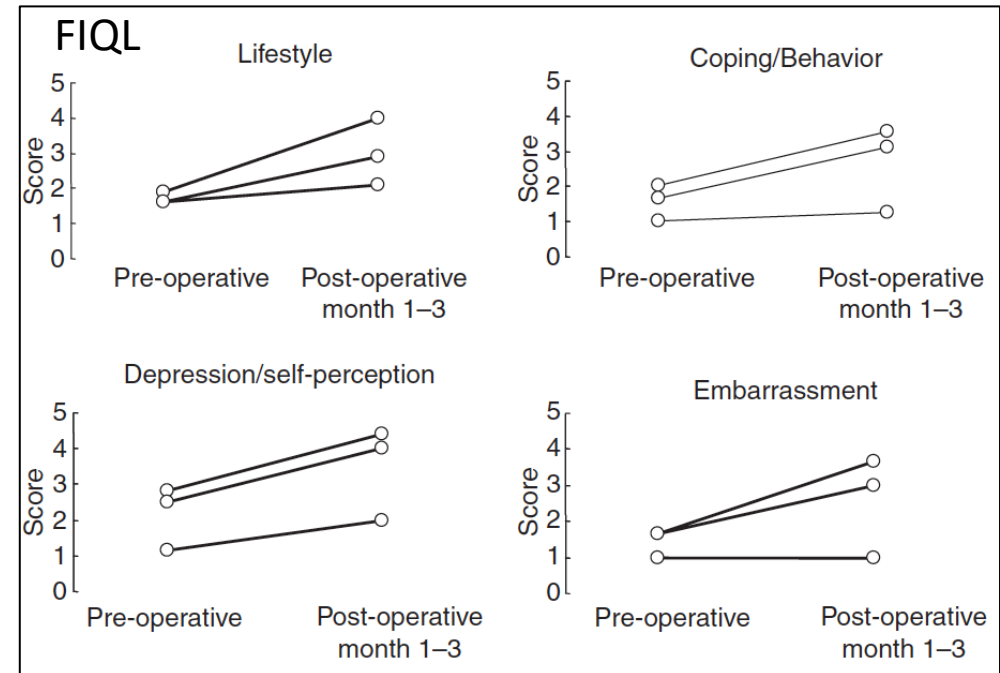
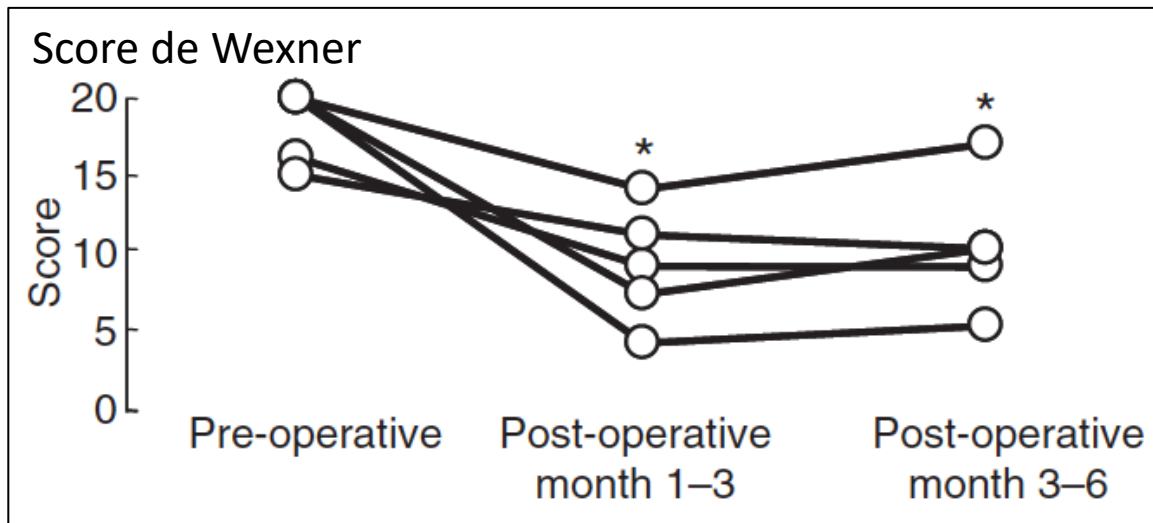
4- Injection de toxine botulique



Botulinum A toxin as a treatment for overactive rectum with associated faecal incontinence

V. Bridoux*, G. Gourcerol†, B. Kianifard*, J.-Y. Touchais†, P. Ducrotte†, A.-M. Leroi†, F. Michot* and J.-J. Tuech*

Colorectal Disease © 2011



Botulinum toxin: an endoscopic approach for treating fecal incontinence

Guillaume Gourcerol¹, Coralie Bénard¹, Chloé Melchior¹, Jean-Yves Touchais², Phillipe Ducrotte², Jean-François Menard³, Valerie Bridoux⁴, Anne-Marie Leroi¹

Endoscopy. 2016 May;48(5):484-8.



5- Stimulation tibiale postérieure (TENS)

- Diminution de l'activité électromyographique du colon
- Augmentation du SAI

- 2 électrodes sur le trajet du nerf tibial postérieur (cheville) reliées à un stimulateur externe
- Stimulation de 30 min



5- Stimulation tibiale postérieure (TENS)



Short-term outcome of percutaneous tibial nerve stimulation for low anterior resection syndrome: results of a pilot study

Colorectal Dis. 2017 Sep;19(9):851-856.

D F Altomare¹, A Picciariello¹, C Ferrara¹, R Digennaro¹, Y Ribas², M De Fazio¹

n. of patients	21
Mean age (years)	66±5.8
Male/female sex ratio	0.47
Cancer stage	10 Stage I, 6 stage IIA 5 Stage IIIB
Obstetric history	Negative
Previous pelvic surgery	Negative
Baseline symptoms	
Urge faecal incontinence	16 (76%)
passive faecal incontinence	4 (19%)
fragmented and incomplete defecation	21 (100%)
impaired defecatory sensation	8 (35%)
Urinary incontinence	6 (29%)

SCORE	Range	before PTNS*	<i>IQ ranges</i>	after PTNS*	<i>IQ ranges</i>	<i>p</i>
St. Mark Faecal incontinence Score	0-24	18	11-19	13	11-18	0.04
Obstructed Defaecation Syndrome (ODS) score	0-31	9	7-11	8	6.5-10	0.34
International Consultation on Incontinence Questionnaire Short Form (ICIQ-SF)	0-21	0	0-8	0	0-0	N.S.
Low Anterior Resection Syndrome (LARS)	0-42	32	30-38	27	17-37	0.009
Three Axial Perineal Evaluation (TAPE)	0-100	55	49-64	58	51-70	0.004

Irrigation colique rétrograde ou stimulation tibiale?

A randomized trial comparing transanal irrigation and percutaneous tibial nerve stimulation in the management of low anterior resection syndrome

Colorectal Disease © 2019

J. M. Enriquez-Navascues*, I. Labaka-Arteaga†, I. Aguirre-Allende* , M. Artola-Etxeberria†, Y. Saralegui-Ansorena*, G. Elorza-Echaniz*, N. Borda-Arrizabalaga* and C. Placer-Galan*



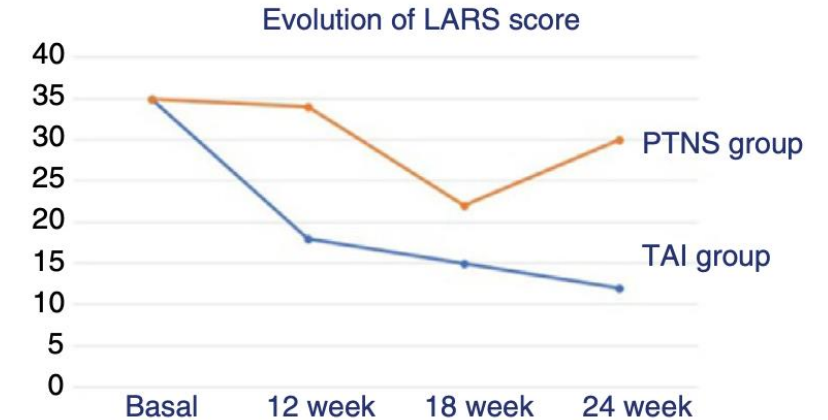
	Irrigation trans-anale TAI group (<i>n</i> = 13)	TENS PTNS group (<i>n</i> = 14)	<i>P</i> -value
Male sex	9 (69%)	8 (57%)	0.944
Mean age (years) (range)	68 (48–71)	68 (56–76)	0.219
No neoadjuvant CRT	7 (53%)	7 (50%)	0.825
Median anastomosis height (cm) (range)	4 (1.5–7)	4.5 (2–7)	0.904
Type of anastomosis (hand-sewn/stapled)	3/10	4/10	0.825
R–R/T–T/L–T anastomosis	2/4/7	1/6/7	0.933
Derivative ileostomy	11/13 (85%)	13/14 (92%)	0.853
Anastomotic complications*	2/13 (15%)	2/14 (14%)	0.818
Urinary complications†	4/13 (30%)	4/14 (28%)	0.821
Median duration of ARS (months) (range)	30 (13–84)	24 (14–60)	0.450
Astringent medication (fibre/laxatives)‡	4/13 (30%)	5/14 (35%)	0.847

Irrigation colique rétrograde ou stimulation tibiale?

A randomized trial comparing transanal irrigation and percutaneous tibial nerve stimulation in the management of low anterior resection syndrome

Colorectal Disease © 2019

J. M. Enriquez-Navascues*, I. Labaka-Arteaga†, I. Aguirre-Allende* , M. Artola-Etxeberria†, Y. Saralegui-Ansorena*, G. Elorza-Echaniz*, N. Borda-Arrizabalaga* and C. Placer-Galan*



Irrigation trans-anale

TENS

	Range	TAI group (n = 10)			PTNS group (n = 13)		
		Basal	6 months	P-value	Basal	6 months	P-value
Score							
LARS score	0–42	35 (IQR 32–39)	12 (IQR 12–26)	0.021	35 (IQR 34–37)	30 (IQR 25–33)	0.045
FI score (Vaizey)	0–24	15 (IQR 11–18)	6 (IQR 4–7)	0.037	14,5 (IQR 13–17)	9 (IQR 7–10)	0.007
ODS score (Altomare)	0–31	10 (IQR 7–14)	8 (IQR 6–9)	0.083	9 (IQR 7–12)	8 (IQR 4–9)	0.554
EORTC QLQ-C30							
Global health status	2–14	8 (IQR 8–9)	12 (IQR 9–12)	0.020	9 (IQR 7–10)	12 (IQR 9–12)	0.45
Physical functioning	21–84	35 (IQR 28–43)	28 (IQR 26–34)	0.071	33 (IQR 27–40)	28 (IQR 23–31)	0.092
Role functioning	7–14	8 (IQR 7–8)	7 (IQR 7–7)	0.058	7 (IQR 7–8)	7 (IQR 7–8)	0.179
VAS	0–10	2 (IQR 0–3)	7.5 (IQR 6–9)	0.008	3 (IQR 0.5–4)	7 (IQR 6–8)	0.003

6- Neuromodulation des racines sacrées



Références	n	Indication	Terrain	Résultats
Mege et al, 2017	16	Cancer du rectum (n=5) PAF, RCH, autres..	RTCT + proctectomie + ACA	- ⚡IA, LARS; ⚡QdV - Infection n=1
Schwandner et al, 2013	9	Cancer du rectum	RTCT + proctectomie + ACA	- ⚡IA, LARS; ⚡QdV 9/9 - Section électrode n=1
Moya et al, 2012	4	Cancer du rectum	RTCT + proctectomie + ACA	- ⚡IA, IU 4/4
de Miguel et al, 2009	14	Cancer du rectum	RTCT + proctectomie + ACR	- ⚡IA; ⚡QdV 7/14 - Echec du test n=7
Holzer et al, 2008	7	Cancer du rectum (n=6) Maladie de Crohn (n=1)	(RTCT +) proctectomie + ACA	- ⚡IA; ⚡QdV 6/7 - Infection n=1, hématome n=1; Echec n=1
Melenhorst et al, 2007	3	Cancer du rectum?		Echec du test n=3
Jarrett et al, 2005	2	Cancer du rectum	Proctectomie (+RTCT) + ACR/ACA	- ⚡IA; ⚡QdV 2/3 - Echec du test n=1
Ratto et al, 2005	4	Cancer du rectum	RTCT + proctectomie + ACR	- ⚡IA, IU; ⚡QdV 4/4
Matzel et al, 2002	1	Cancer du rectum	Proctectomie + ACR	- ⚡IA

6- Neuromodulation des racines sacrées



Sacral nerve stimulation can alleviate symptoms of bowel dysfunction after colorectal resections

D. Mege*, G. Meurette†, V. Vitton‡, A.-M. Leroi§, V. Bridoux¶, P. Zerbib**, I. Sielezneff* and Club NEMO

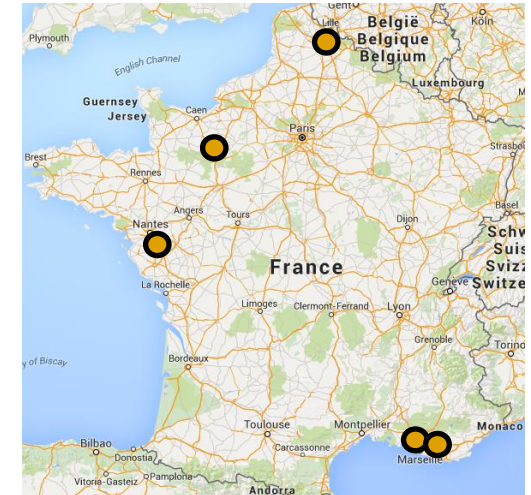
Colorectal Disease © 2017

n = 16 malades
(femmes = 56%; 53 [22-78] ans)

AIA
n = 7 (44%)

Proctectomie ou colectomie gauche

- Anastomose coloanale **n = 6 (37%)**
- Anastomose colorectale **n = 3 (19%)**



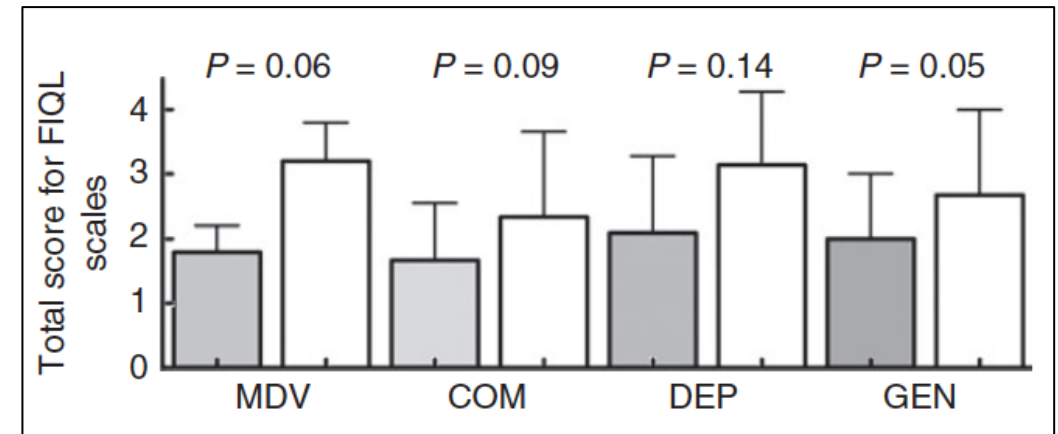
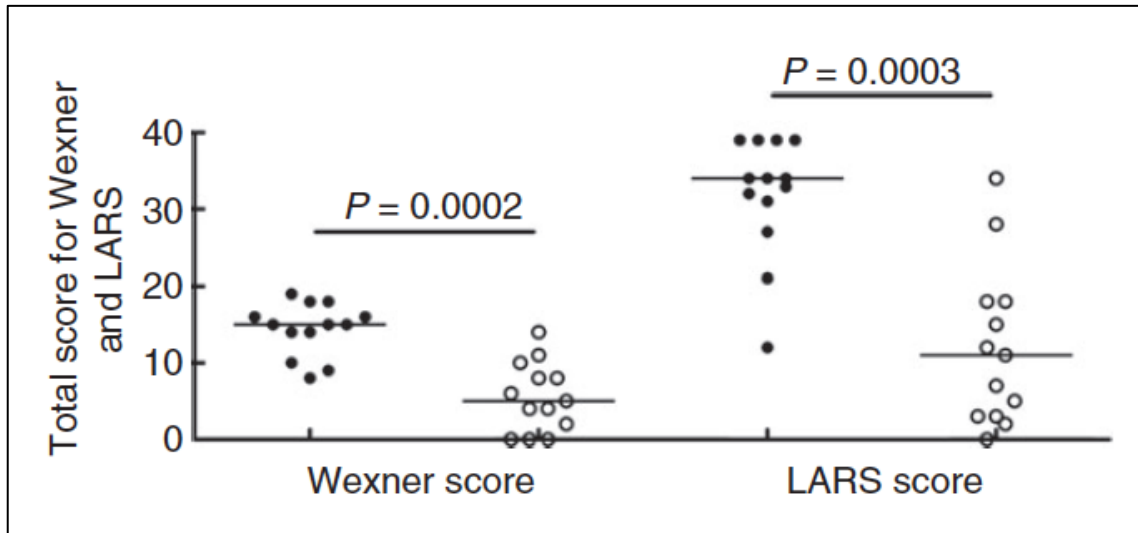
6- Neuromodulation des racines sacrées



Sacral nerve stimulation can alleviate symptoms of bowel dysfunction after colorectal resections

D. Mege*, G. Meurette†, V. Vitton‡, A.-M. Leroi§, V. Bridoux¶, P. Zerbib**, I. Sielezneff* and Club NEMO

Colorectal Disease © 2017

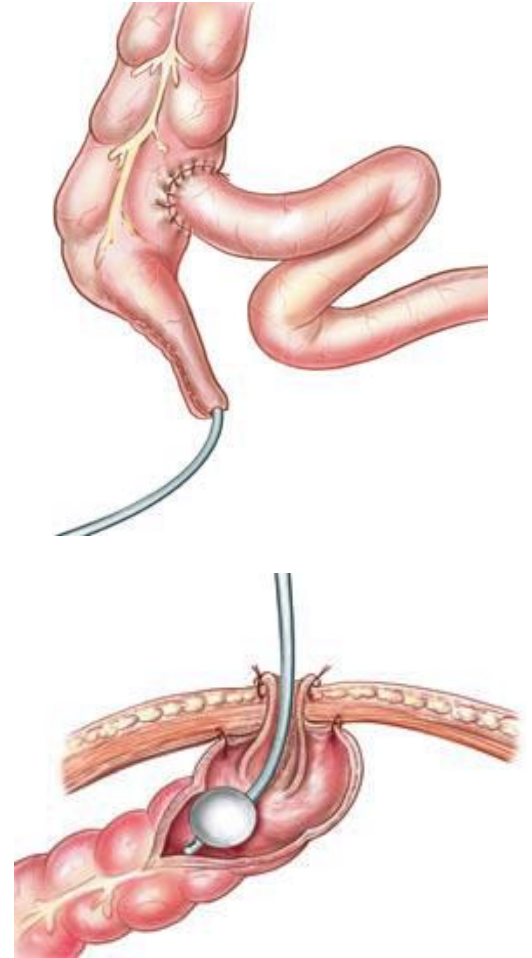


Quelle est la meilleure Stimulation?

Name	ID	Type of modulation	Site	Patients
SANLARS Trial	NCT03598231	SNS	Hospital Vall d'Hebron, Barcelona, Spain	36
RESTORE Trial	NCT04066894	SNS	MD Anderson Cancer Center, Houston, USA	60
Tibial stimulation in LARS ^a	NCT02177084	PTNS	St Orsola Hospital, Bologna, Italy	12
PTNS in LARS patients ^a	NCT02517853	PTNS	Hospital Vall d'Hebron, Barcelona, Spain	41

7- Irrigation colique antérograde (Malone)

- Antireflux avec la valvule iléo-caecale
- Irrigation 1.5L toutes 24-48h par autosondage
- **Succès 50-91%**

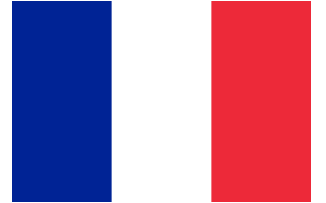


7- Irrigation colique antérograde (Malone)

Antegrade colonic enema for faecal incontinence in adults:
long-term results of 75 patients

Colorectal Disease © 2011

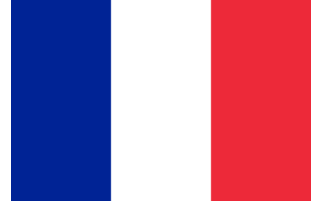
N. Chéreau, J. H. Lefèvre, C. Shields, N. Chafai, M. Lefrancois, E. Tiret and Y. Parc



- N=75 → n=21 postopératoire
- **48 mois: 91% utilisé et 86% efficacité**
- Amélioration significative du score de Wexner

	Overall population
Hospital stay (days)	9.2 ± 3.5
Early complications	4 (5%)
Local infection	3 (4%)
Haematoma	1 (1%)
Late complications	12 (16%)
Stenosis	6 (8%)
Reflux	6 (8%)
Late bowel obstruction	5 (7%)
secondary to faecal impaction	
Stoma prolapse	1 (1%)

7- Irrigation colique antérograde (Malone)




Antegrade Enema After Total Mesorectal Excision for Rectal Cancer: The Last Chance to Avoid Definitive Colostomy for Refractory Low Anterior Resection Syndrome and Fecal Incontinence

Romain Didailler, M.D.^{1,2} • Quentin Denost, M.D., Ph.D.^{1,2} • Paula Loughlin, M.D.^{1,2}
Edouard Chabrun, M.D.^{3,4} • Julie Ricard, M.D.^{3,4} • Flor Picard, M.D.^{1,2}
Frank Zerbib, M.D., Ph.D.^{3,4} • Eric Rullier, M.D.^{1,2}

Dis Colon Rectum 2018; 61: 00–00

- 74-88% efficacité
- 1/3 complications (douleurs, suintements)

Anterograde colonic irrigations by percutaneous endoscopic caecostomy in refractory colorectal functional disorders

Julie Ricard¹ • Lucille Quénéhervé^{2,3}  • Chloé Lefevre³ • Marc Le Rhun² • Edouard Chabrun¹ •
Emilie Duchalais-Dassonneville^{2,3} • Guillaume Meurette² • Yann Touchefeu^{2,3} • Stanislas Bruley des Varannes^{2,3} •
Frank Zerbib¹ • Emmanuel Coron^{2,3}

Int J Colorectal Dis. 2019 Jan;34(1):169-175.

8- Stomie définitive

(Colostomie iliaque gauche ± terminalisée)

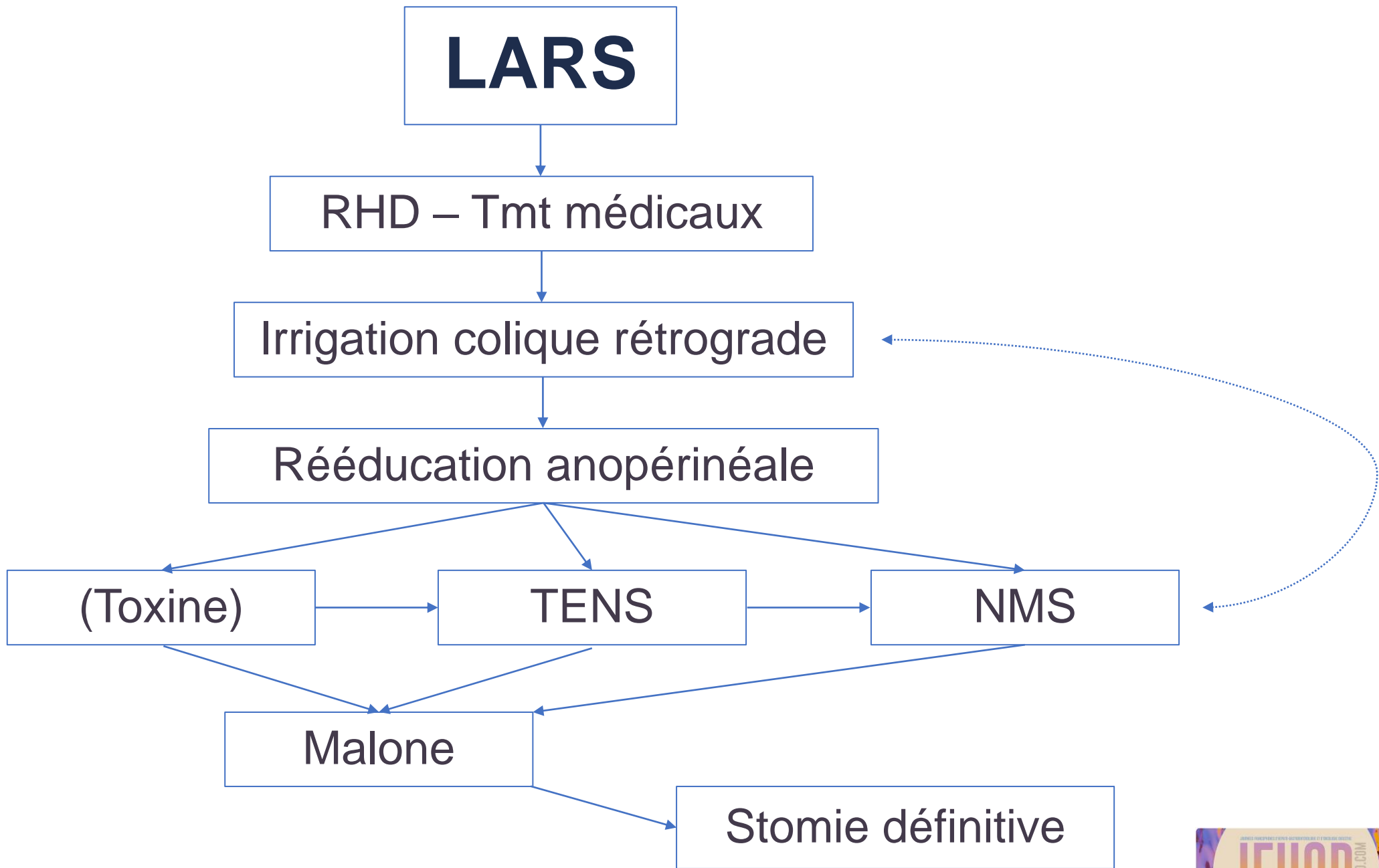
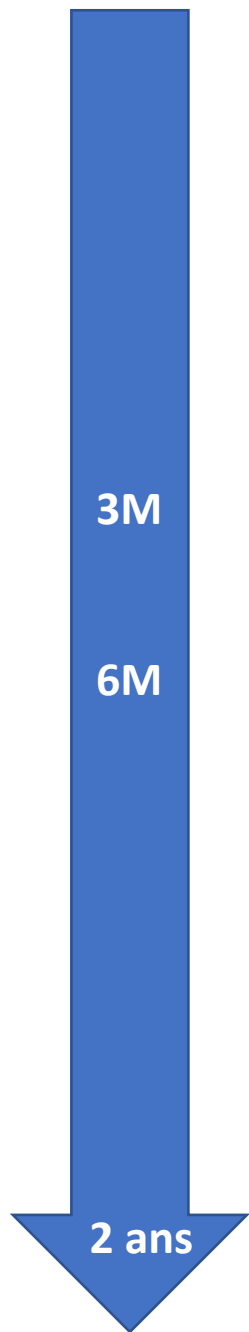


[Cochrane Database Syst Rev. 2012 Dec 12;12:CD004323. doi: 10.1002/14651858.CD004323.pub4.](#)

Quality of life after rectal resection for cancer, with or without permanent colostomy.

[Pachler J¹](#), [Wille-Jørgensen P.](#)

AUTHORS' CONCLUSIONS: The studies included in this review do not allow firm conclusions as to the question of whether the **quality of life** of people **after** anterior **resection** is superior to that of people **after** abdominoperineal excision/Hartmann's operation. The included studies challenges the assumption that anterior **resection** patients fare better. Larger, better designed and executed prospective studies are needed to answer this question.



POINTS FORTS

1. Le syndrome de résection rectale est observé dans **50 % des cas** après proctectomie réalisée pour cancer.
2. En cas de syndrome de résection rectale, il faut toujours éliminer une **récidive tumorale**.
3. Les facteurs de risque sont **multiples**, liés au patient, à la tumeur, au traitement néoadjuvant et au geste chirurgical.
3. Une **amélioration** de la symptomatologie est possible au cours du temps.
3. La prise en charge repose sur le **traitement médical** (lavements et laxatifs) associé à une **rééducation anopérinéale** et en cas d'échec sur certaines **techniques chirurgicales** (neuromodulation des racines sacrées, caecostomie pour irrigations antérogrades, colostomie).



Syndrome de résection rectale : comment améliorer la qualité de vie des patients ?

Diane MEGE

Service de Chirurgie Digestive
hôpital Timone, Marseille



Faculté des sciences
médicales et paramédicales
Aix-Marseille Université

Hôpitaux
Universitaires
de Marseille | ap.
hm