



RECONSTRUCTION APRÈS PROCTECTOMIE ET ANASTOMOSE BASSE

Zeynal ANIL
NANTES Janvier 2012

INTRODUCTION

Recommandations TNCD

La marge de sécurité distale doit être égale ou supérieure à 1 cm.

Distance mesurée sur une pièce non fixée et sans traction



Shirouzu K, Isomoto H, Kakegawa T. Distal spread of rectal cancer and optimal distal margin of resection for sphincter-preserving surgery. *Cancer* 1995; 76:388-92.

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Diminution des indications de l'AAP

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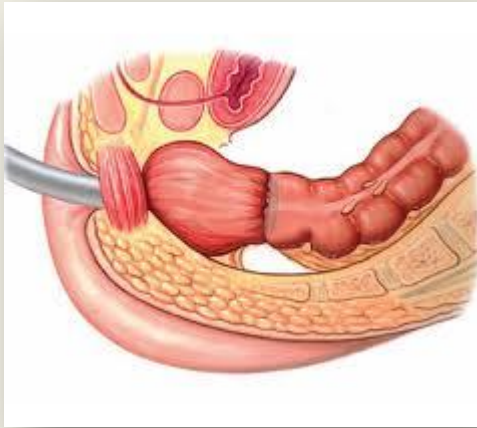
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- ➡ Diminution des indications de l'AAP
- ➡ Plus de conservation sphinctérienne

INTRODUCTION

Anastomose termino-terminale

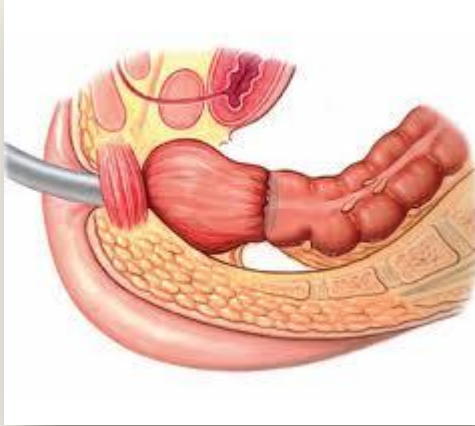


Anastomose colorectal basse



Anastomose colo anale

INTRODUCTION



Anastomose colorectal basse



Anastomose colo anale

Anastomose termino-terminale

Syndrôme de résection rectale :

- Augmentation de la fréquence des selles
- Fractionnement épisodique des selles
- Impériosité
- Incontinence anale

Le réservoir colique après exérèse rectale pour cancer : justifications et données récentes

Eric Rullier, Frank Zerbib. Hépatogastro - 1999

INTRODUCTION

Long-term functional results after sphincter-saving resection for rectal cancer

Frédéric BRETAGNOL (1), Hervé TROUBAT (1), Christophe LAURENT (1), Frank ZERBIB (2), Jean SARIC (1), Eric RULLIER (1)

	Good functional result		P
	n	%	
Age, years, mean (range)	64 (32-85)		0.32
Gender			0.50
— Male	45/85	53	
— Female	36/60	60	
Anastomotic height			0.001
— < 3 cm	10/29	35	
— 3-6 cm	39/74	53	
— > 6 cm	32/42	76	

Lewis WG, Holdsworth PJ, Stephenson BM, Finan PJ, Johnston D. Role of the rectum in the physiological and clinical results of coloanal and colorectal anastomosis after anterior resection for rectal carcinoma. *Br J Surg* 1992;79:1082-6.

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Pour un meilleur résultat fonctionnel



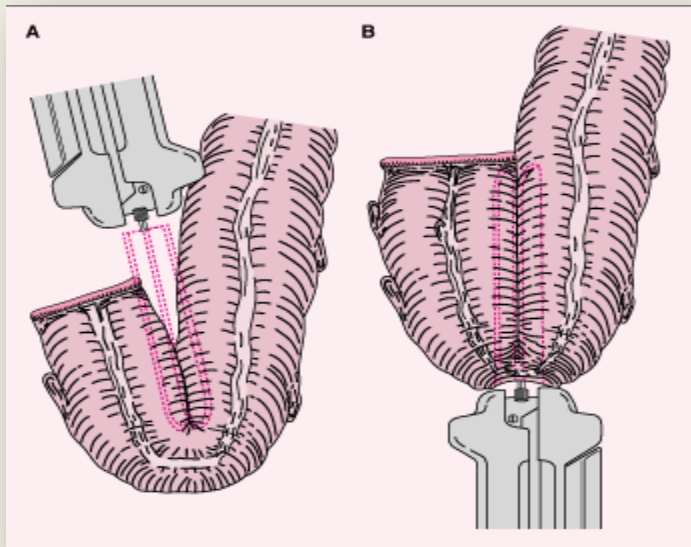
Une anastomose à plus de 6cm de la MA

Lewis WG, Holdsworth PJ, Stephenson BM, Finan PJ, Johnston D. Role of the rectum in the physiological and clinical results of coloanal and colorectal anastomosis after anterior resection for rectal carcinoma. Br J Surg 1992;79:1082-6.

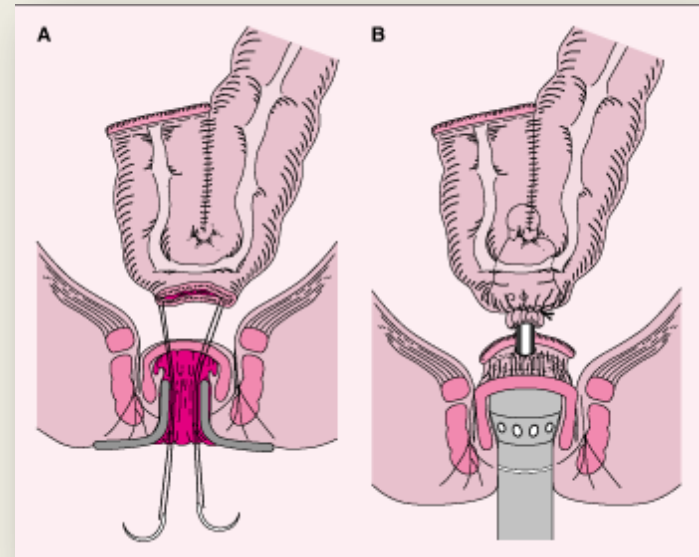


Au moins 4 cm de moignon rectal

RÉSERVOIR COLIQUÉ EN J



Confection du réservoir



Anastomose colorectale basse ou coloanale

RÉSERVOIR COLIQUÉ EN J

Tableau 2

Analyse statistique des résultats des études randomisées comparant anastomose colo-anale avec réservoir colique (ACA-R) et anastomose colo-anale directe (ACA-D)

Premier auteur	Année	Recul (mois)	ACA-R n	ACA-D n	Fréquence de colles	Impériosité	Confinen- ce
Seow-Choen [29]	1995	12	19	20	< 0,05	NS	0,01
Ortiz [30]	1995	12	15	15	< 0,05	NS	NS
Hallböök [31]	1995	12	42	47	< 0,001	< 0,001	0,002
Lazorthes [32]	1997	24	13	12	< 0,01	NS ^a	NS

^a Seuls 3 mois.

RÉSERVOIR COLIQUÉ EN J

Hallböök and Others

Randomized Comparison of Straight and Colonic J Pouch Anastomosis After Low Anterior Resection

Ann. Surg. • July 1996

Table 6. POSTOPERATIVE FUNCTIONAL OUTCOME

	Two Months			One Year		
	Straight (n = 50)	Pouch (n = 43)	p	Straight (n = 47)	Pouch (n = 42)	p
Frequency of bowel movements 24 hr [median (interquartile range)]	6.4 (4.5–8.1)	2 (1.5–2.5)	<0.001*	3.5 (2.4–4.5)	2 (1.3–2.3)	<0.001*
Nocturnal bowel movements	31 (62%)	13 (30%)	0.0019†	11 (24%)	3 (7%)	0.042†
Ability to defer defecation > 30 min (%)			<0.001*			<0.001*
Always	8	44		15	49	
Often	22	35		40	44	
Sometimes	36	21		30	5	
Never	34	0		15	2	
Composite score of incontinence, 0–18 [median (interquartile range)]	7 (2.8–13)	1.5 (0–5)	<0.001*	5 (2–9)	2 (0–5.3)	0.0018*
Unable to differentiate gas from stool	22 (44%)	5 (12%)	<0.001†	8 (17%)	4 (10%)	0.36†
Regular use of retarding medication	21 (42%)	3 (7%)	<0.001†	19 (40%)	1 (2%)	<0.001†

RÉSERVOIR COLIQUÉ EN J

Hallböök and Others

Randomized Comparison of Straight and Colonic J Pouch Anastomosis After Low Anterior Resection

Ann. Surg. • July 1996

Table 7. POSTOPERATIVE FUNCTIONAL OUTCOME WITH REGARD TO EVACUATION

	Two Months			One Year		
	Straight (n = 50)	Pouch (n = 43)	p	Straight (n = 47)	Pouch (n = 42)	p
<u>Ability to evacuate the bowel < 15 min (%)</u>			0.54*			0.073*
Always	50	56		55	34	
Often	28	23		26	39	
Sometimes	14	21		15	20	
Never	8	0		4	7	
<u>Sensation of incomplete evacuation (%)</u>			0.033*			0.10*
Never	13	32		9	22	
Sometimes	29	39		52	50	
Often	40	21		32	23	
Always	18	8		7	5	
<u>Regular use of enema or suppository to evacuate the bowel [no. (%)]</u>	0	3 (7)	0.095†	0	4 (10)	0.046†

RÉSERVOIR COLIQUÉ EN J

Defining Causes of Evacuation Difficulty

Jin-ichi Hida, M.D.

Dis Colon Rectum, December 1999

Clinical Assessment

	10-J Group		5-J Group		<i>P</i>
	n	Percent	n	Percent	
Evacuation difficulty (≥ 15 min spent on toilet), yes/total	4/19	21	0/27	0	0.0126
Incomplete evacuation, yes/total	5/19	26	1/27	4	0.0249
No. of times to attain complete evacuation, ≥ 3 /total	5/19	26	1/27	4	0.0249

10-J = 10-cm J-pouch; 5-J = 5-cm J pouch.

RÉSERVOIR COLIQUÉ EN J

Defining Causes of Evacuation Difficulty

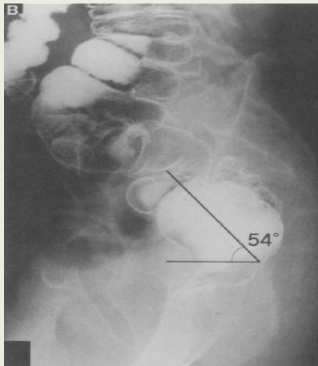
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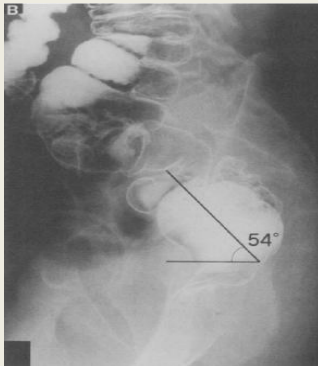
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10-J = 10-cm J-pouch; 5-J = 5-cm J pouch.



Time After Operation	Pouch-Horizontal Angle* (Degrees)		P
	10-J Group	5-J Group	
Three months	52.6 \pm 6 (44-64), n = 10	67.5 \pm 7.4 (57-85), n = 27	<.0001
One year	36.7 \pm 8.5 (21-50), n = 19	55.4 \pm 12.2 (35-72), n = 27	<.0001
Two years	35.6 \pm 2.5 (21-47), n = 26	53.7 \pm 11.9 (33-72), n = 26	<.0001

RÉSERVOIR COLIQUÉ EN J

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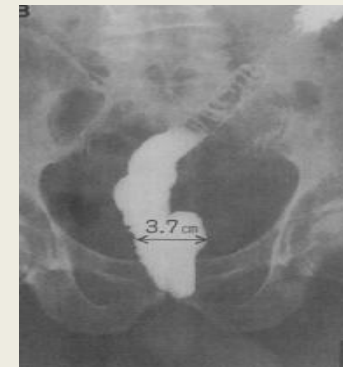
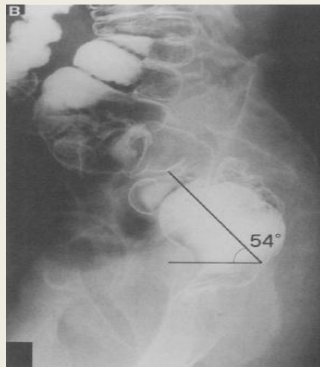
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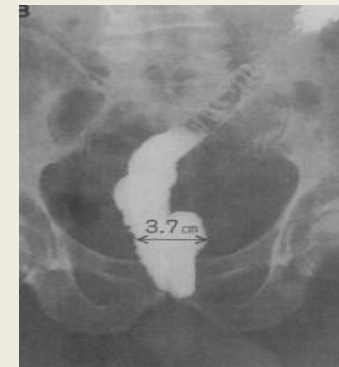
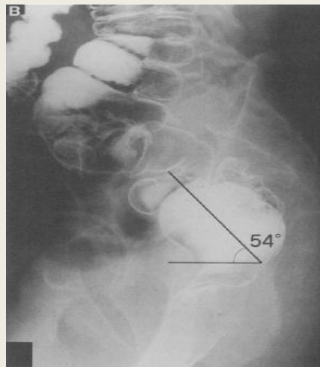
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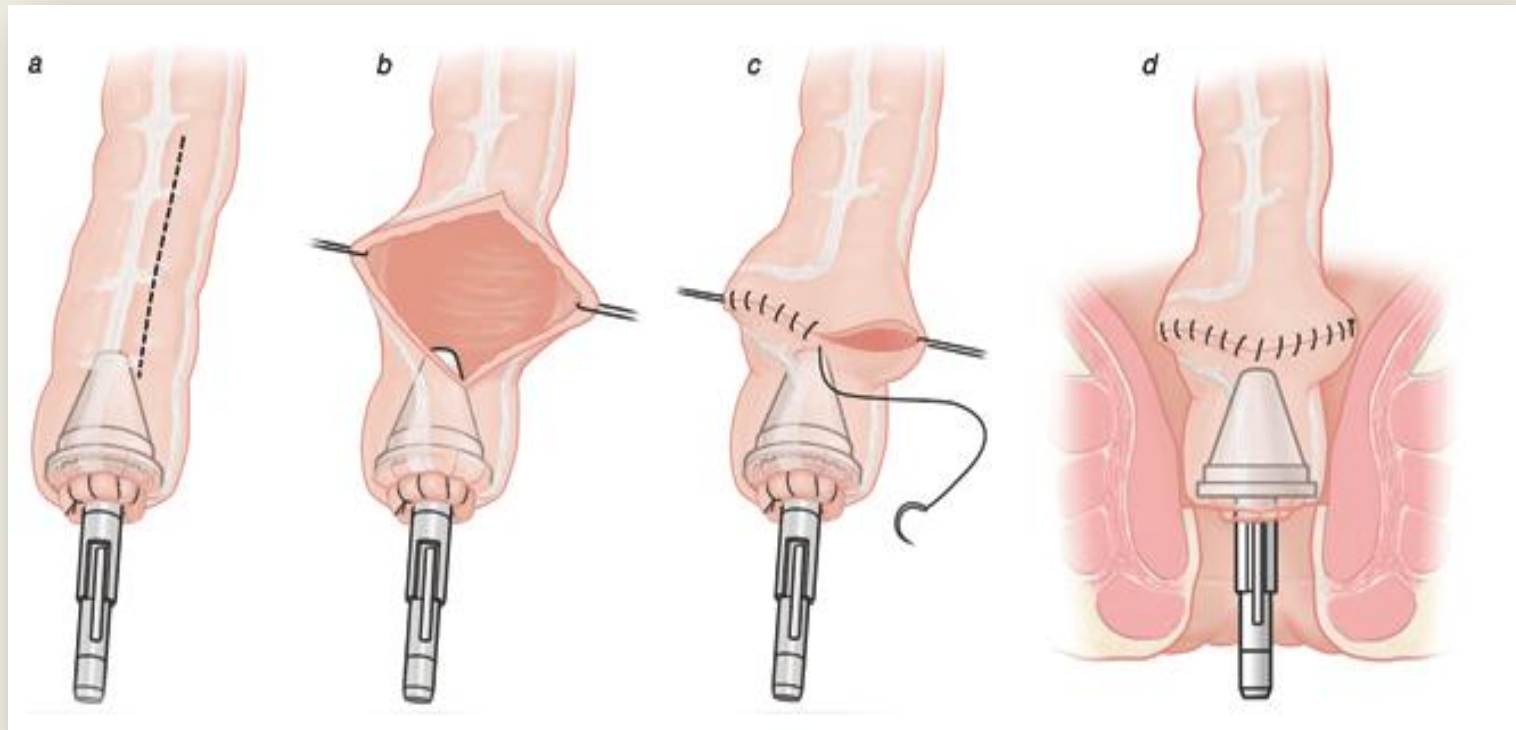
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Time After Operation	Change in the Greatest Width of the Pouch Over		
	The Greatest Width (cm)		
	10-J Group	5-J Group	P Value
Three months	4.9 \pm 0.6 (n = 10) (4.2-6.2)	4 \pm 0.7 (n = 27) (2.7-5.3)	0.0011
One year	9 \pm 1.4 (n = 19) (5-11.5)	5.6 \pm 0.6 (n = 27) (4.8-6.8)	<.00001
Two years	9.2 \pm 1.2 (n = 26) (5.2-11.5)	5.8 \pm 0.5 (n = 26) (4.9-6.8)	<.00001

RÉSERVOIR COLIQUÉ EN J

- Lorsque le moignon rectal < 4cm
- Meilleurs résultats fonctionnels/T-T
- Avec une hauteur de 5cm
- Difficultés techniques :
 - Bassin étroit
 - Méso épais
 - Longueur de colon insuffisante

COLOPLASTIE TRANSVERSALE

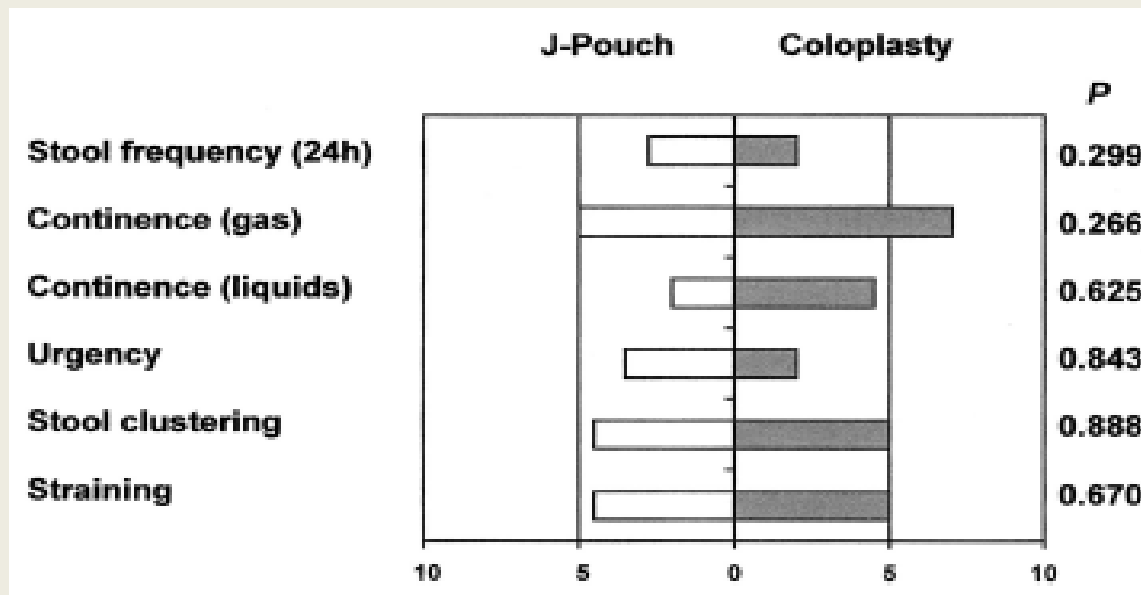


COLOPLASTIE TRANSVERSALE

Colonic J-Pouch *vs.* Coloplasty
Following Resection of Distal
Rectal Cancer

Alois Fürst, M.D.

Dis Colon Rectum, September 2003



➡ Résultats fonctionnels identiques au réservoir en j

COLOPLASTIE TRANSVERSALE

Comparison of J-Pouch and Coloplasty Pouch for Low Rectal Cancers

A Randomized, Controlled Trial Investigating Functional Results and Comparative Anastomotic Leak Rates

Table 2. POSTOPERATIVE COMPLICATIONS

	Colonic J-Pouch (n = 44)	Coloplasty Pouch (n = 44)	P Value
<u>Anastomotic leak (including subclinical)</u>	0	7 (15.9%)	<u>.0121</u>
Chest infection	2 (4.5%)	3 (6.8%)	1
Wound infection	2 (4.5%)	3 (6.8%)	1
Rectovaginal fistula	0	1 (2.3%)	1
Total	4 (9.1%)	14 (31.8%)	.0287

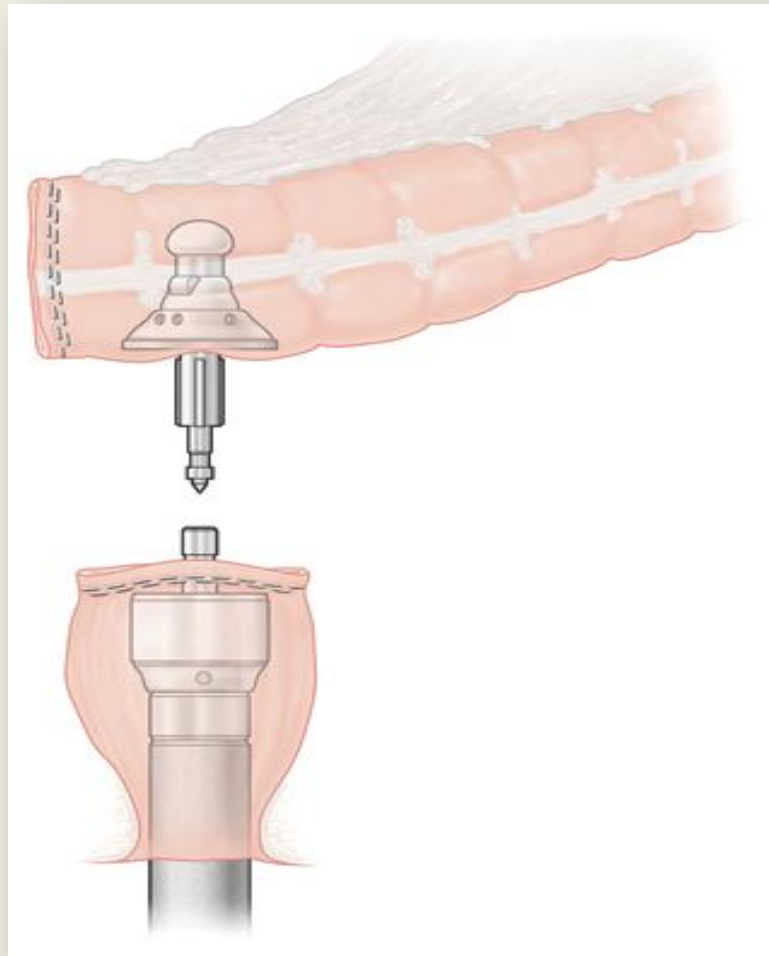
Fisher exact test used for statistical analysis.

Ho and Others

Ann. Surg. • July 2002

➡ Plus de fistule/ réservoir colique en J

ANASTOMOSE LATERO-TERMINALE



ANASTOMOSE LATERO-TERMINALE

A meta-analysis comparing side to end with colonic J-pouch formation after anterior resection for rectal cancer

M. R. S. Siddiqui

Tech Coloproctol (2010) 14:113–123

Table 3 Number of patients in trials

Trial	Year	Type	<i>N</i>
Jiang et al. [17]	2005	J-Pouch	24
		STE	24
Machado et al. [12, 16]	2005&2003	J-Pouch	50
		STE	50
Prete et al. [19]	2000	J-Pouch	35
		STE	31
Huber et al.	1998	J-Pouch	29
		STE	30

ANASTOMOSE LATERO-TERMINALE

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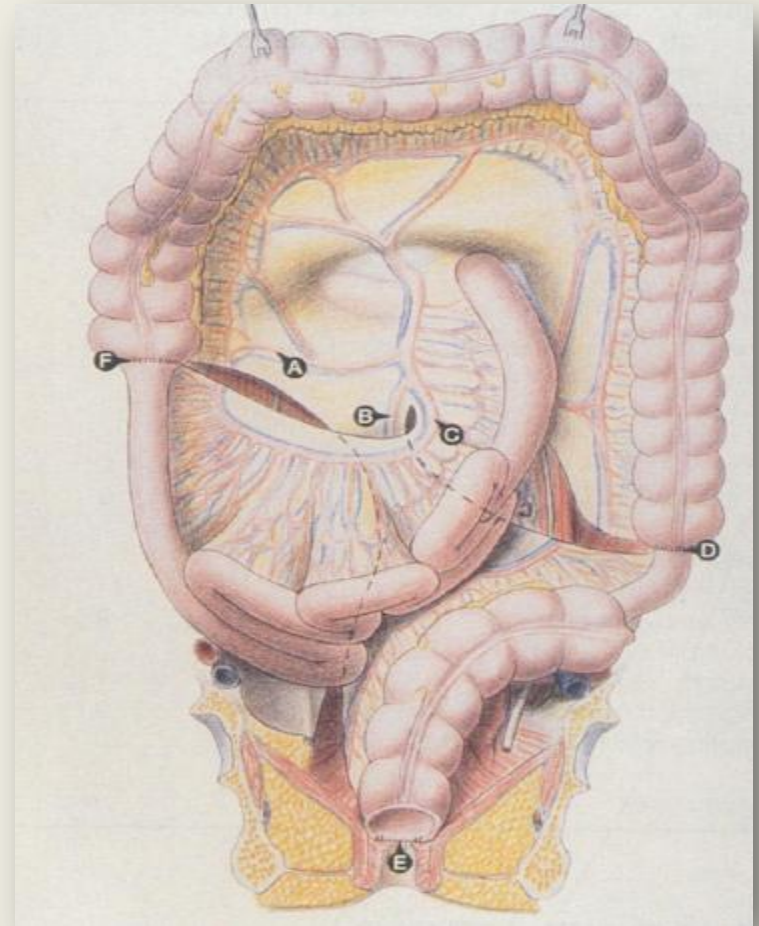
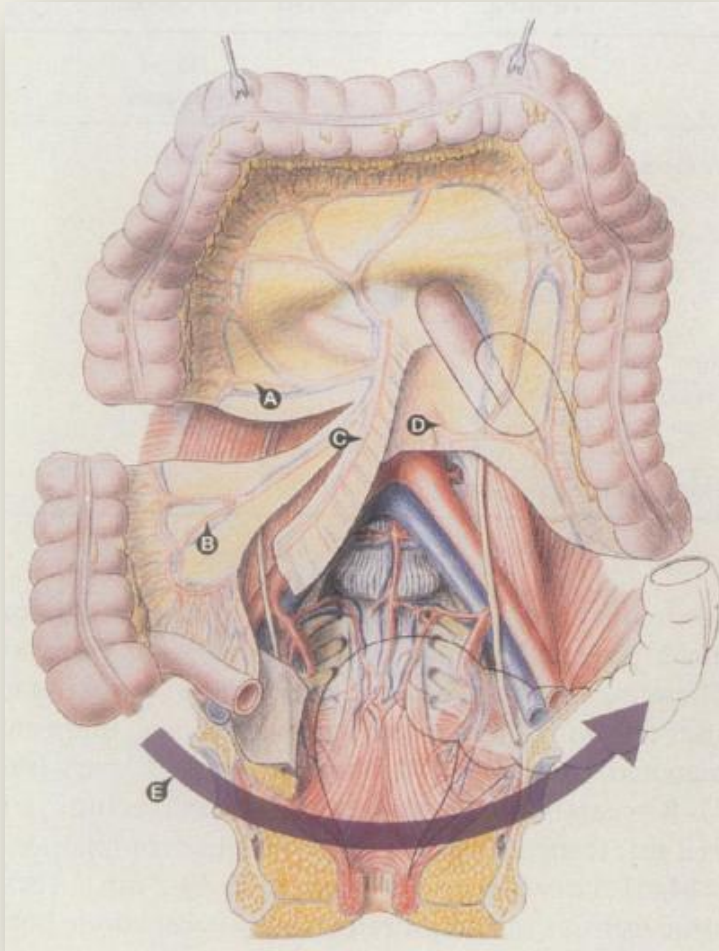
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		STE	50
Prete et al. [19]	2000	J-Pouch	35
		STE	31
Huber et al.	1998	J-Pouch	29
		STE	30

After AR for rectal cancer, J-pouch or STEA is both acceptable and safe options. Either approach may be considered according to surgeon choice.

ANASTOMOSE LATERO-TERMINALE

- Alternative au réservoir colique en J
- Résultats fonctionnels comparables
- Réalisation plus facile

RÉSERVOIR ILÉO-CAECAL



RÉSERVOIR ILÉO-CAECAL

Ileocecal Reservoir Reconstruction with Physiologic Function After Total Mesorectal Cancer Excision

Table 3. DEFEICATION QUALITY

Functional Score	Criteria	No. of Patients
1. <u>Excellent</u>	Normal continence Frequency: 1 to 2 movements per day No imperative urge Good evacuation	16
2. <u>Good</u>	Incontinence for gas + liquid stool (at night) Frequency: 3 to 4 movements per day Occasional imperative urge Occasional incomplete evacuation	4
3. Fair	Incontinence for liquid stool (at day) Frequency: 5 to 6 movements per day Frequent imperative urge Frequent incomplete evacuation	0
4. Poor	Significant leak (incontinence for solid stool) Frequency: >6 movements per day Frequent imperative urge Enema dependent	0

Tech Coloproctol (2010) 14:113-123

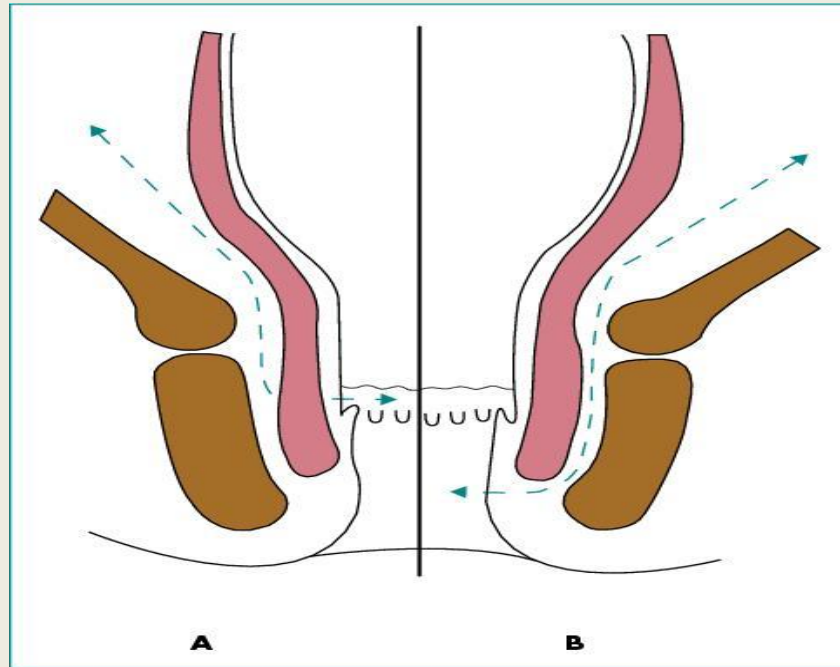
Markus O. von Flüe, M.D.,

Modified from Paty et al.²

RÉSERVOIR ILÉO-CAECAL

- Bons résultats fonctionnels
- Technique difficile
- Multiplie les anastomoses
- Non comparée aux autres

RÉSECTION INTER SPHINCTÉRIENNE



**Résection intersphinctérienne
partielle**

Résection intersphinctérienne totale

RÉSECTION INTER SPHINCTÉRIENNE

Comparison of Functional Results and Quality of Life Between Intersphincteric Resection and Conventional Coloanal Anastomosis for Low Rectal Cancer

Functional Results After ISR and CAA for Low Rectal Cancer

	ISR Group (n = 40)	CAA Group (n = 37)	P Value
Stool frequency per 24 hr	2.8 ± 2.1	2.3 ± 1.3	0.22
Urgency	15 (37)	14 (38)	1
Stool fragmentation	25 (62)	24 (64)	1
Dyschesia	16 (40)	12 (32)	0.64
Feces-flatus discrimination	25 (62)	27 (73)	0.34
<u>Continence Wexner score</u>	10.8 ± 5.2	6.9 ± 4.2	<u><0.001</u>
Antidiarrheal medications	24 (60)	13 (35)	0.04
Alimentary restriction	8 (20)	11 (30)	0.43
<u>Continence Kirwan classification</u>			<u><0.01^a</u>
I Perfect	6 (15)	12 (32)	
II Incontinence of flatus	15 (38)	18 (49)	
III Occasional minor soiling	14 (35)	7 (19)	
IV Frequent major soiling	5 (12)	0	
V Incontinent (required colostomy)	0	0	

ISR = intersphincteric resection; CAA = conventional coloanal anastomosis.

Frédéric Bretagnol, M.D.,¹ Eric Rullier,

Dis Colon Rectum, June 2004

RÉSECTION INTER SPHINCTÉRIENNE

Functional outcome after intersphincteric resection of the rectum with coloanal anastomosis in low rectal cancer

European Journal of Surgical Oncology

April 2004

B. Bittorf, U. Stadelmaier

- La résection inter sphinctérienne est suivi d'une incontinence majorée
- Les résultats fonctionnels sont améliorés par un réservoir en J/ Anastomose directe
- Score de Wexner 9,9 +/- 4,5 vs 13,4 +/- 4 P < 0,05

RÉSECTION INTER SPHINCTÉRIENNE

- Repousse les limites de la conservation Sphinctérienne
- Résultats oncologiques satisfaisants
- Risque d'incontinence majorée
- A associer au réservoir en J

ANASTOMOSE COLO-ANALE DIFFÉRÉE

J0



J6



Technique sans réservoir

ANASTOMOSE COLO-ANALE DIFFÉRÉE

Delayed colo-anal anastomosis is an alternative to prophylactic diverting stoma after total mesorectal excision for middle and low rectal carcinomas

Étude prospective de 100 patients

J. Jarry et al./EJSO 37 (2011) 127–133

Morbidity in direct colo-anal anastomosis studies.

Authors	Preventive diverting stoma	Anastomotic leak (%)	Pelvic abscess (%)
Baulieux et al ¹¹	100%	7.9	10.5
Lazorthes et al ²²	100%	4.6	4.6
Hautefeuille et al ²	100%	20	–
Benchimol et al ²³	100%	8.5	–
Berger et al ²⁴	100%	3	1.23
Rullier et al ²⁵	100%	10	3
Our series of ACAD	0%	3	6

ANASTOMOSE COLO-ANALE DIFFÉRÉE

Functional Results of Delayed Coloanal Anastomosis after Preoperative Radiotherapy for Lower Third Rectal Cancer

Eric Olagne, MD, Jacques Baulieux,

J Am Coll Surg

Vol. 191, No. 6, December 2000

Étude rétrospective. 35 patients

Table 6. Functional Outcomes at 1 Year after Direct Coloanal Anastomosis and J Pouch Reservoir

Functional outcomes	Berger ¹³ J (%)	Benchimol ¹² DCAA (%)	Halbøok ²⁸ J (%)	Ho ²⁹ J (%)	Paty ²⁰ DCAA (%)	Our series DCAA (%)
< 3 stools per day	88	100	60	50	78	97
No stool at night	95	—	76	—	—	86
Control > 15 min	96	90	15	—	75	96
No pad	71	—	—	93	68	38
Discrimination stool/gas	96	96	83	—	—	90
No soiling	—	79	—	—	77	52
<u>Continence of stool</u>	78	96	60	94	51	59
<u>Continence of gas</u>	87	—	65	—	51	79
No treatment	75	75	39	—	83	72
<u>Normal social life</u>	—	—	—	87	—	100
<u>Personal satisfaction</u>	—	—	—	—	—	100
<u>Defecation > 30 min</u>	21	79	45	68	68	0
Regular diet	—	—	—	—	44	100

DCAA, direct coloanal anastomosis; J, J pouch reservoir.

CONCLUSION

- Après proctectomie un moignon rectal < 4cm doit faire réaliser un réservoir
- Le réservoir colique en J de 5cm reste la référence
- L'anastomose latéro terminale est la meilleure alternative
- La RIS doit être associé au réservoir en J