NOUVEAUTES DANS LE TRAITEMENT DES CANCERS SUPERFICIELS DU RECTUM T1

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INTRODUCTION

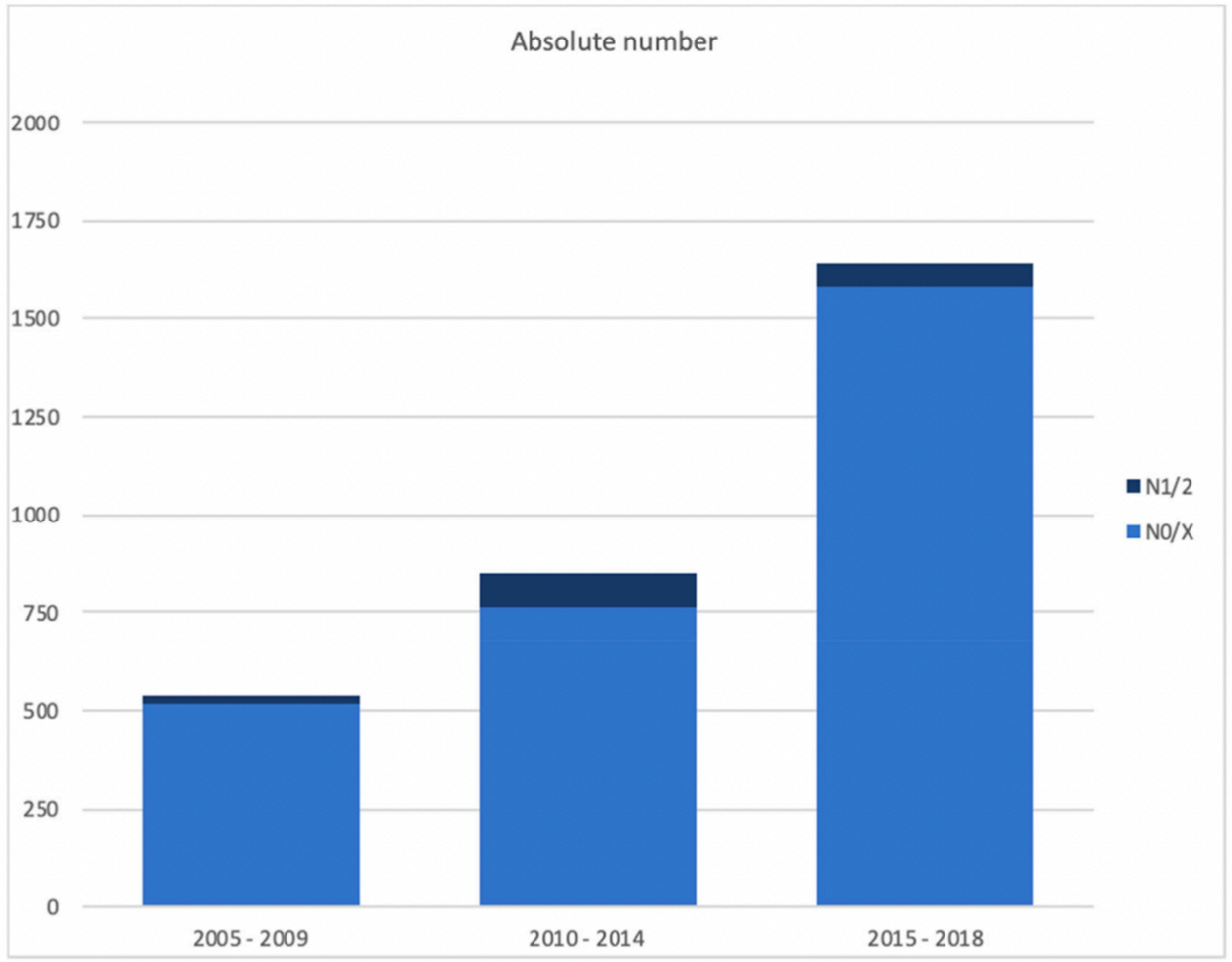
- Epidemiologie
- TNCD sur les cancer du rectum 2023
- Stratégie de conservation non chirurgicale
    - « watch and wait » après réponse tumorale par radiochimiothérapie pour des tumeurs plus avancées
    - Amélioration des traitements endoscopiques
    - Meilleure connaissance des risques de métastases ganglionnaires ou à distance

EPIDEMIOLOGIE CCR USA

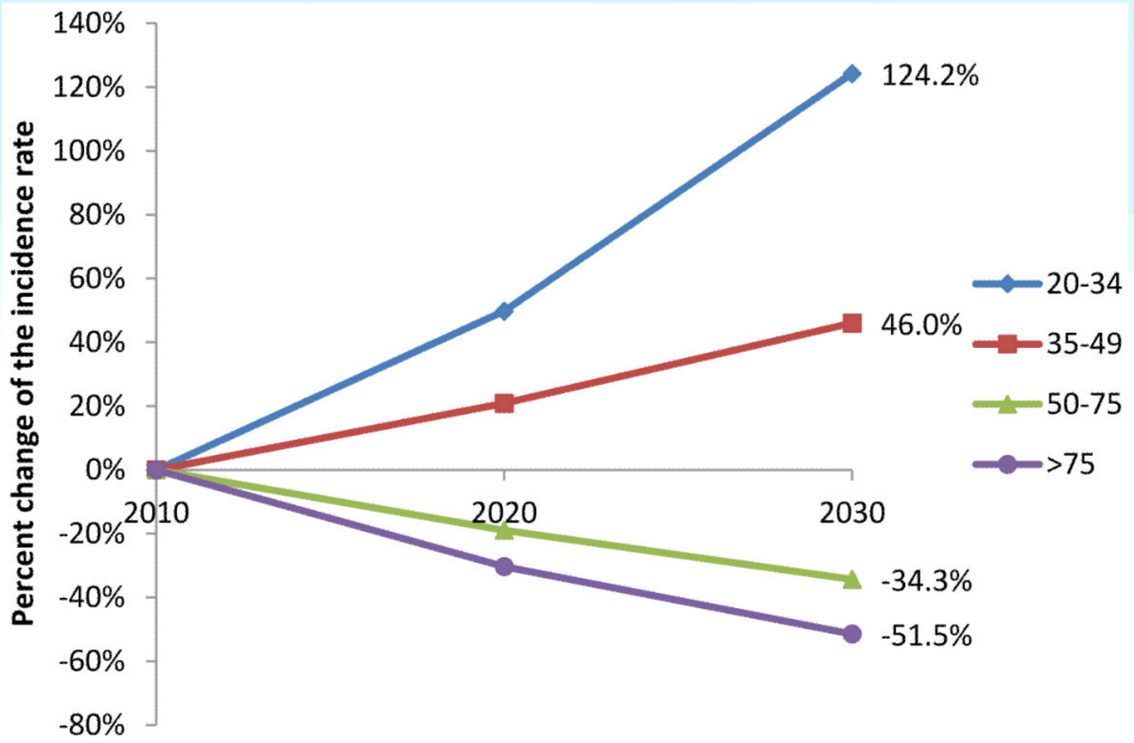
ADK RECTO-SIGMOÏDE

Treatment of clinical T1 rectal cancer in the Netherlands; a population-based overview of clinical practice

M. Verseveld [a, b, *], D. Verver [a], B.J. Noordman [a, b], S. Pouwels [c], M.A.G. Elferink [d], E.J.R. de Graaf [e], C. Verhoef [b], P.G. Doornebosch [e], J.H.W. de Wilt [f]



European Journal of Surgical Oncology 48 (2022) 1153–1160

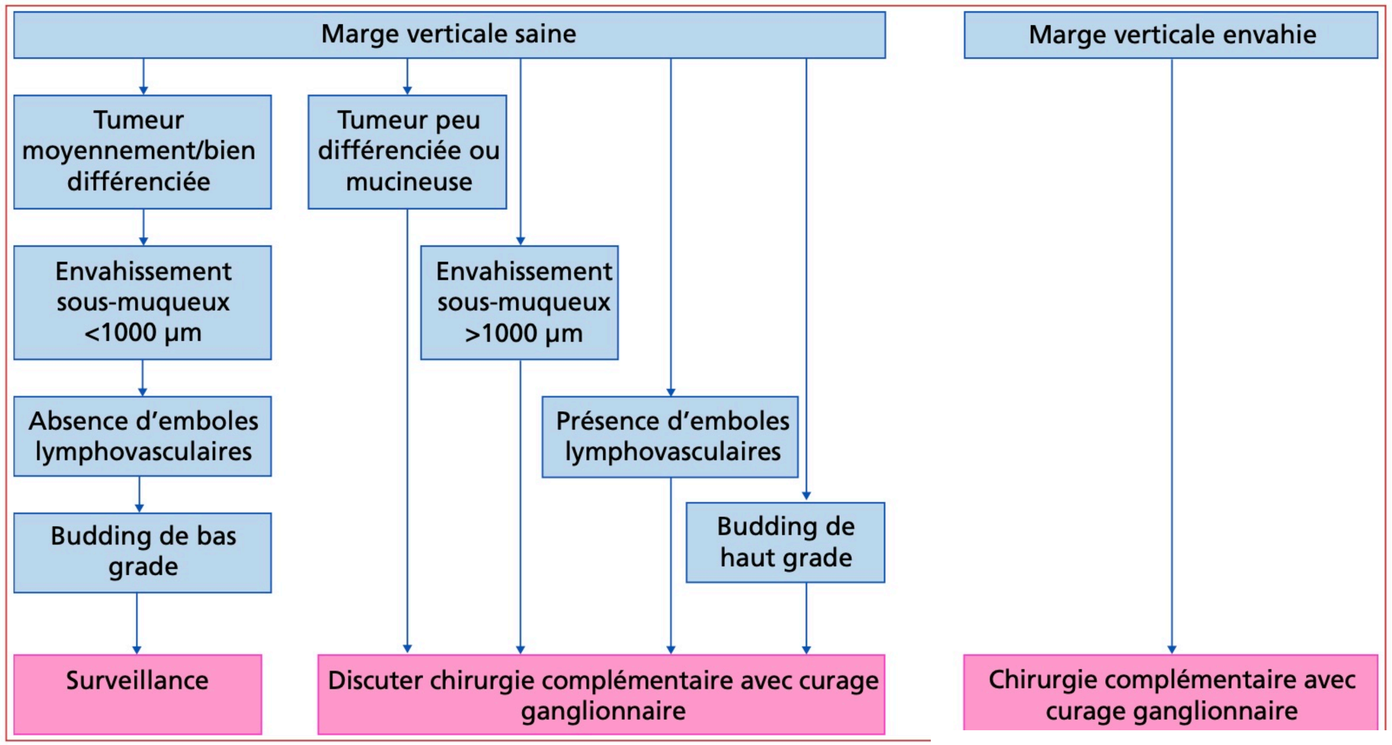


Bailey et al. Jama Surg 2015

2022

Current problems and perspectives of pathological risk factors for lymph node metastasis in T1 colorectal cancer: Systematic review

Katsuro Ichimasa,[1] Shin-ei Kudo,[1] Hideyuki Miyachi,[1] Yuta Kouyama,[1] Kenichi Mochizuki,[1] Yuki Takashina,[1] Yasuharu Maeda,[1] Yuichi Mori,[1,8] Toyoki Kudo,[1] Yuki Miyata,[1] Yoshika Akimoto,[1] Yuki Kataoka,[3,4,5,6] Takafumi Kubota,[6,7] Tetsuo Nemoto,[2] Fumio Ishida[1] and Masashi Mi



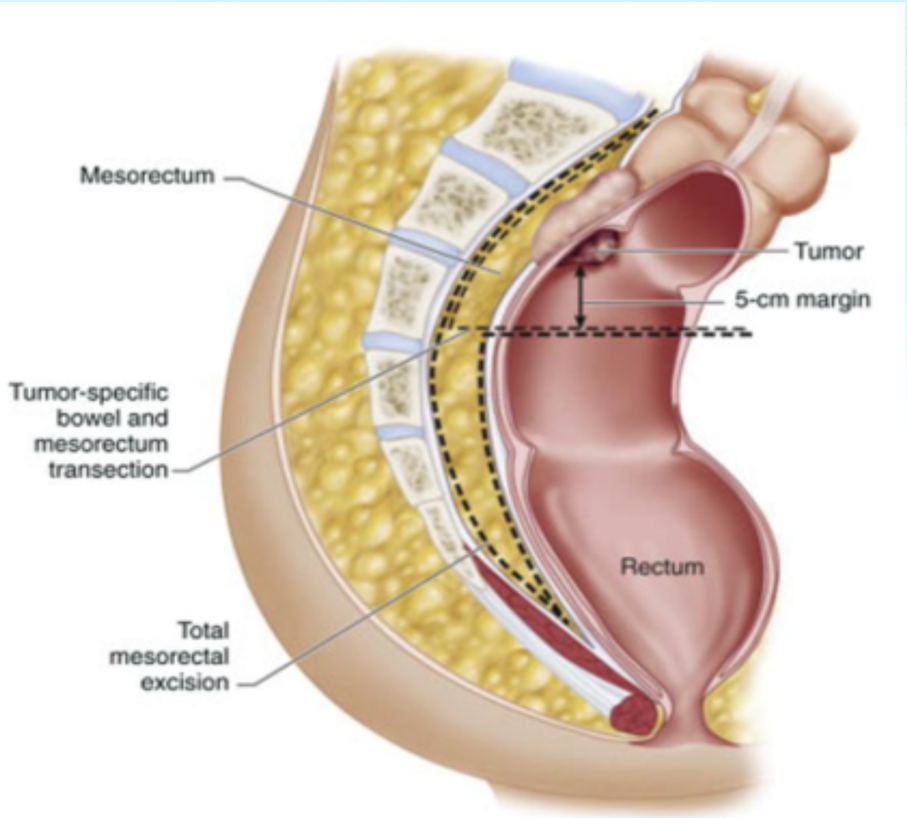
Digestive Endoscopy 2022; **34**: 901–912

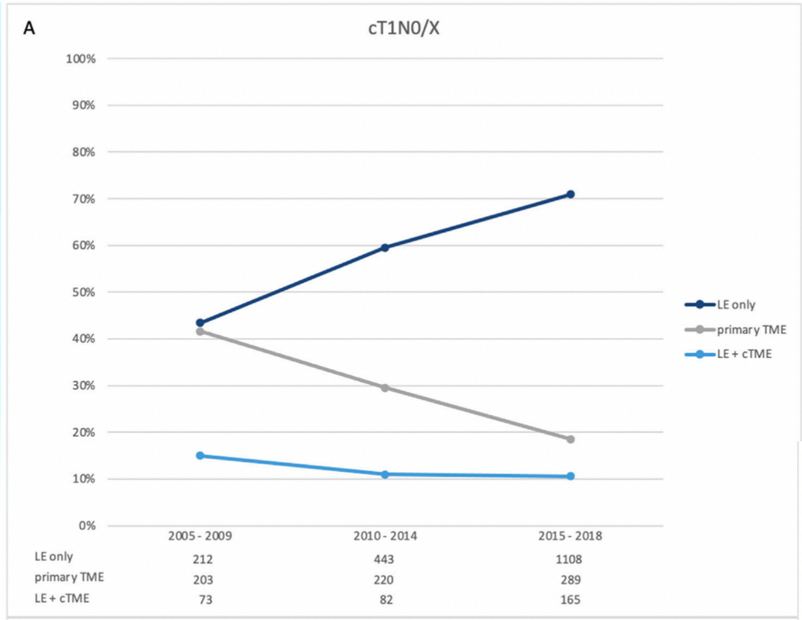
Japanese Society for Cancer of the Colon and Rectum (JSCCR) guidelines 2019 for the treatment of colorectal cancer

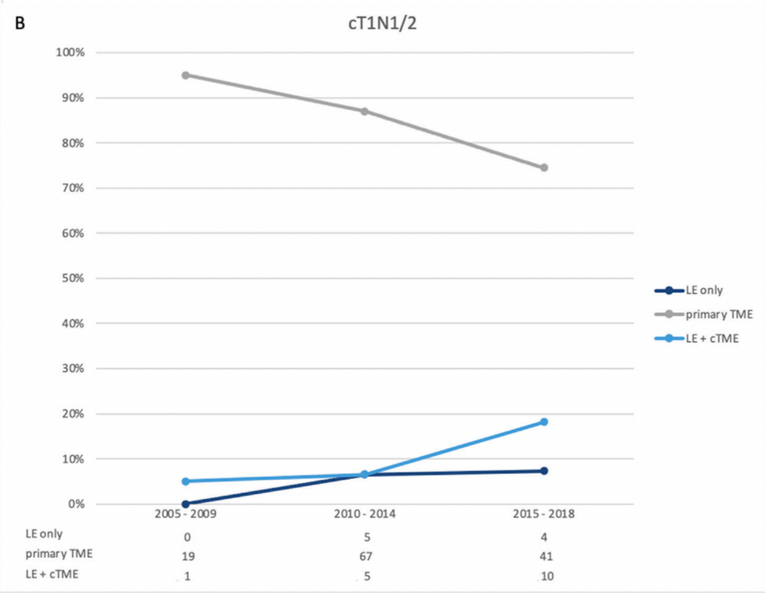
Surgery is the Standard of Care for Early Rectal Cancer

R. Hargest

2023







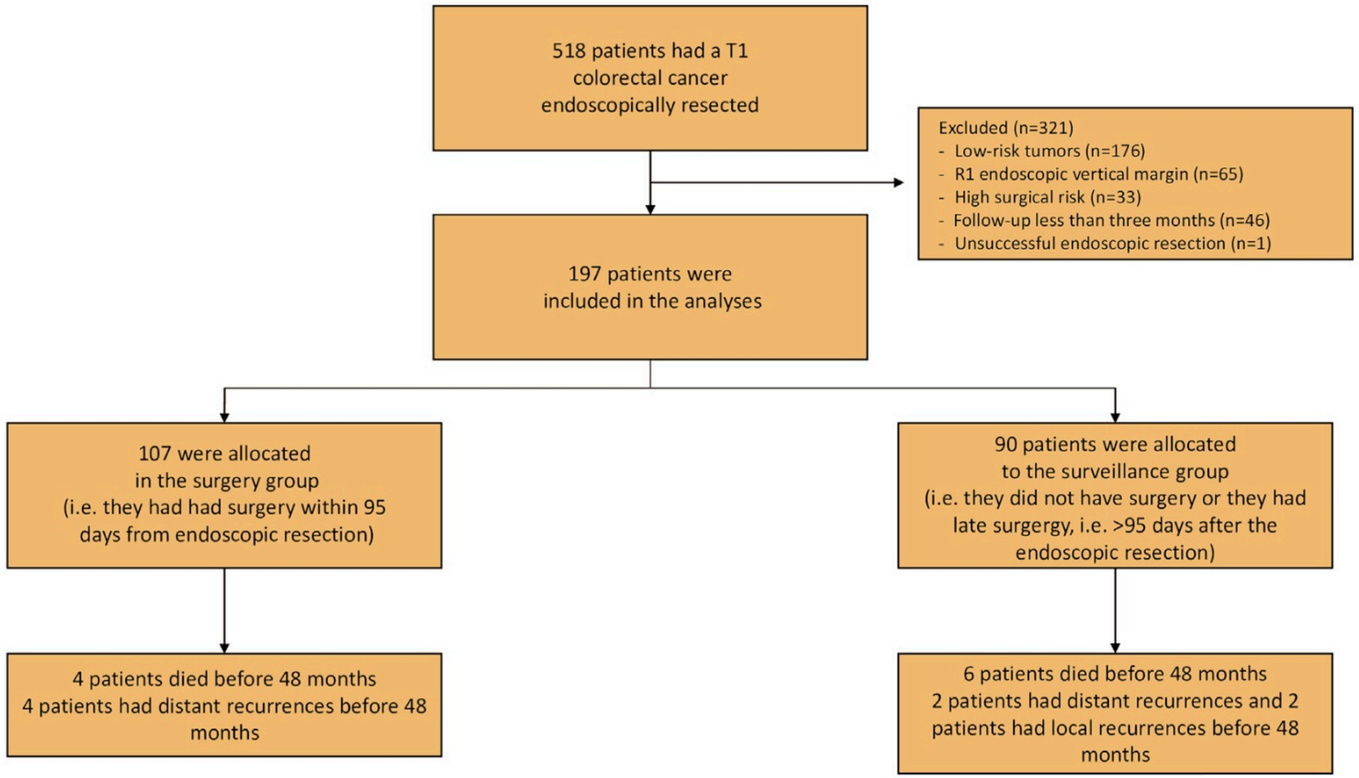
Clinical Oncology 35 (2023) 75–79

European Journal of Surgical Oncology 48 (2022) 1153–1160

Impact of surgery after endoscopically resected high-risk T1 colorectal cancer: results of an emulated target trial

2024

Félix Corre, MD, MSc,[1,2] Jérémie Albouys, MD, MSc,[3] Viet-Thi Tran, MD, PhD,[4] Vincent Lepilliez, MD,[5] Jean-Philippe Ratone, MD,[6] Emmanuel Coron, MD, PhD,[7,8] Thomas Lambin, MD, MSc,[9] Gabriel Rahmi, MD, PhD,[10] David Karsenti, MD,[11] Jean-Marc Canard, MD,[12] Edouard Chabrun, MD,[13] Marine Camus, MD, PhD,[14] Timothée Wallenhorst, MD,[15] Jean-Baptiste Chevaux, MD,[16] Marion Schaefer, MD, MSc,[16] Romain Gerard, MD,[17] Alexandre Rouquette, MD,[2,18] Benoit Terris, MD, PhD,[2,18] Romain Coriat, MD, PhD,[1,2] Jérémie Jacques, MD, PhD,[3] Maximilien Barret, MD, PhD,[1,2] Mathieu Pioche, MD, PhD,[9] Stanislas Chaussade, MD, PhD,[1,2]



(Gastrointest Endosc 2024;99:408-16.)

Impact of surgery after endoscopically resected high-risk T1 colorectal cancer: results of an emulated target trial

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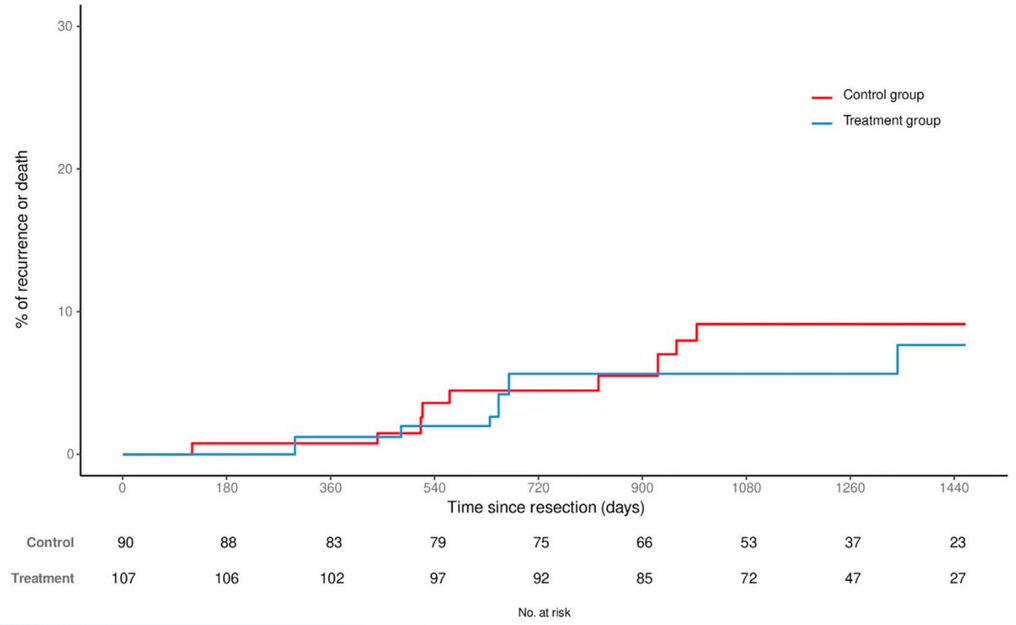

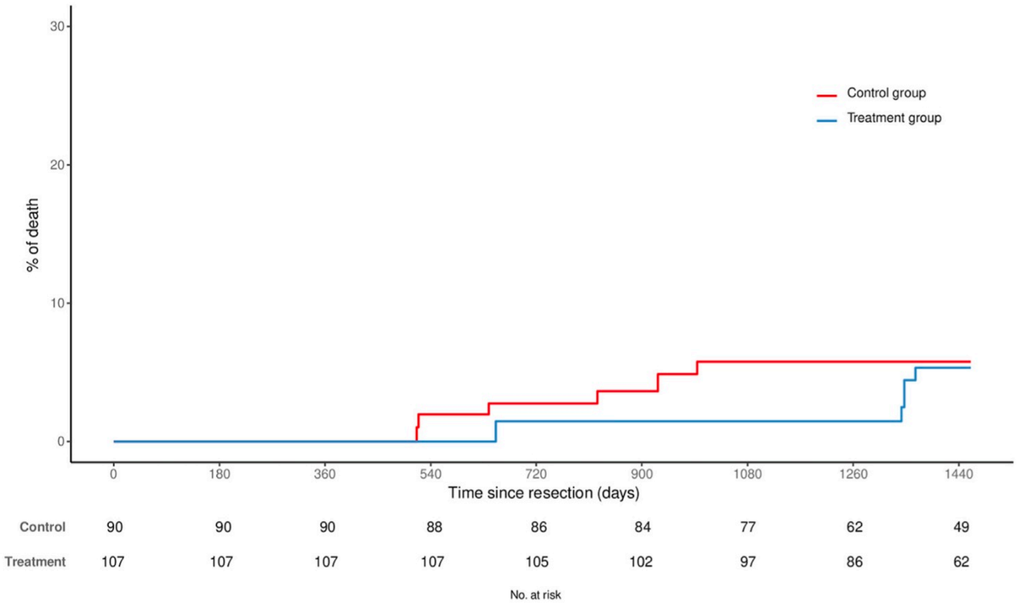

Figure 3. Death rate of patients in the treatment and control groups after balancing the baseline covariates by inverse probability of treatn (weighted hazard ratio, 1.19; 95% confidence interval, .49-2.88).

(Gastrointest Endosc 2024;99:408-16.)

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Pas d'impact de la Chirurgie : pourquoi ?

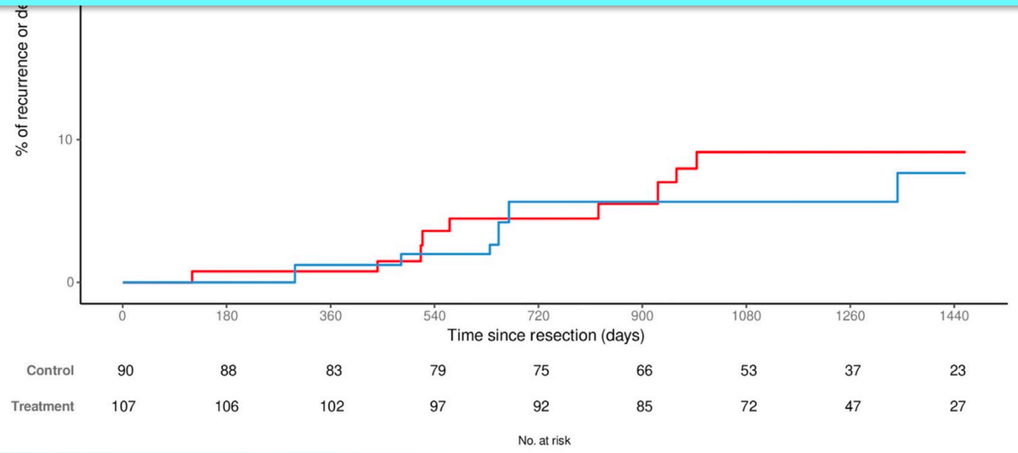


Figure 3. Death rate of patients in the treatment and control groups after balancing the baseline covariates by inverse probability of treatment weighting (weighted hazard ratio, 1.19; 95% confidence interval, .49-2.88).

(Gastrointest Endosc 2024;99:408-16.)

RESULTATS DE LA CHIRUGIE APRES TRAITEMENT ENDOSCOPIQUE

Tumeurs à bas risque : 30%
0 critère histopronostique péjoratif

2% N+, 2% R+

Tumeurs à haut risque 70%
> = 1 critère histopronostique péjoratif

80% des CCR T1 NE TIRE AUCUN BENEFICE DE LA CHIRURGIE

20% N+

80% pT0N0

Traitement chirurgical
5% R+ après traitement chirurgical surtout pour CCR du recto sigmoide

Ueno et al., Gastroenterology 2004
Yoda et al., Endoscopy 2013

QUE DIT LE TNCD ?

Date de cette version :
05/09/2023
Date de dernière mise à jour à vérifier sur
Date de dernière mise à jour à vérifier sur www.tncd.org ou www.snfge.org

Sur le plan carcinologique, une résection locale d'adénocarcinome rectal peut être considérée curative lorsque la résection est R0) et qu'elle présente les critères suivants :

- **Adénocarcinomes intra-muqueux** purs (T1a)
- **Adénocarcinomes à envahissement sous-muqueux superficiel (sm1)** lorsque l'invasion sous- muqueuse est inférieure à 1000 microns et qu'aucun embol vasculonerveux ni *Budding* de grade ≥2 ni composantes indifférenciées n'est détecté par l'anatomo-pathologiste.
- **Adénocarcinomes à envahissement sous-muqueux profond (> sm1)** lorsque l'invasion sous-muqueuse est supérieure à 1000 microns et qu'aucun embol vasculonerveux ni *Budding* de grade ≥2 ni composantes indifférenciées n'est détecté par l'anatomo-pathologiste.

STRATEGIE DE CONSERVATION D'ORGANE

- Amélioration R0
- Discussion des paramétriques histologiques
- Autres critères et nomogramme
- Traitement complémentaire non chirurgical : radiochimiothérapie.

Deep submucosal invasion is not an independent risk factor for lymph node metastasis in T1 colorectal cancer: a meta-analysis

Gastroenterology (2022), (

2022

Liselotte W. Zwager, Barbara A.J. Bastiaansen, Nahid S.M. Montazeri, Roel Hompes, Valeria Barresi, Katsuro Ichimasa, Hiroshi Kawachi, Isidro Machado, Tadahiko Masaki, Weiqi Sheng, Shinji Tanaka, Kazutomo Togashi, Chihiro Yasue, Paul Fockens, Leon M.G. Moons, Evelien Dekker

Deep submucosal invasion is not an independent risk factor for lymph node metastasis in T1 colorectal cancer: a meta-analysis

DSI in relation to LNM in univariable analysis

67 studies

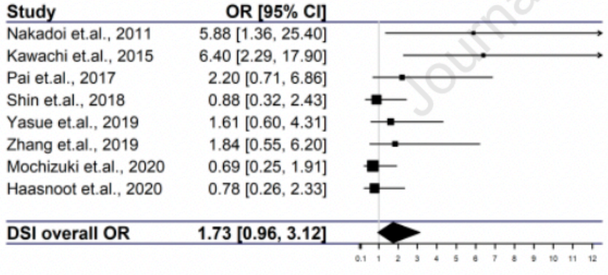
21,238 patients

Overall LNM-rate: 11.2%

OR 2.58 (95% CI 2.10-3.18)

DSI in relation to histological high-risk* factors in multivariable analysis

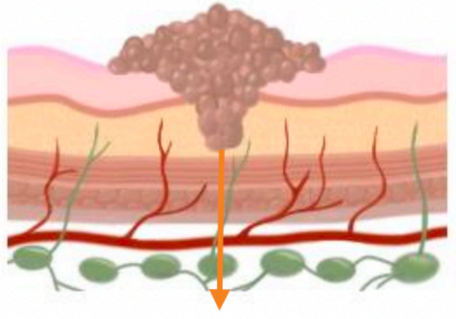
8 studies, 3621



OR 1.73 (95% CI 0.96-3.12)

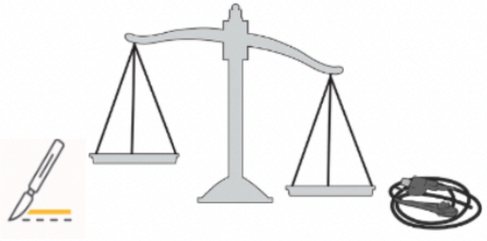
DSI as solitary risk factor for LNM

8 studies,1146



Absolute risk: 2.6%

DSI should be reconsidered as *strong* indicator for oncologic surgery



DSI (deep submucosal invasion); LNM (lymph node metastasis); OR (odds ratio).
*poor differentiation grade, lymphovascular invasion and high-grade tumor budding

Gastroenterology

A risk stratification for nodal metastasis in T1 colorectal cancer after successful therapeutic endoscopy

2022

		T1b colorectal cancer		T1a colorectal cancer	
Authors of the study	Number of cases	Any other risk factors		Any other risk factors	
		Positive	Negative	Positive	Negative
Oishi *et al.* [3*]	225				
		19/114 16.7%	2/70 2.9%	0/17 0%	0/24 0%
Kawachi *et al.* [4]	806				
		79/367 21.5%	14/236 5.9%	3/82 3.7%	1/121 0.8%
Ajioka *et al.* [5]	2057				
		191/800 23.9%	41/875 4.7%	1/39 2.6%	1/343 0.3%

2022

Lymphovascular Infiltration, Not Depth of Invasion, is the Critical Risk Factor of Metastases in Early Colorectal Cancer

Retrospective Population-based Cohort Study on Prospectively Collected Data, Including Validation

Carl-Fredrik Rönnow, MD, PhD, Victoria Arthursson, MD,* Ervin Toth, MD, PhD,† Peter-Martin Krarup, MD, PhD,‡ Ingvar Syk, MD, PhD,* and Henrik Thorlacius, MD, PhD**✉

TABLE 2. Risk of Lymph Node Metastases With 1 Risk Factor Only

	Sm1	Sm2	Sm3	Total
Submucosal invasion, only	17/336 (5.1%)	21/240 (8.8%)	36/424 (8.5%)	74/1000 (7.4%)
LVI*, only	7/21 (33.3%)	5/11 (45.5%)	16/40 (40%)	28/72 (38.9%)
Perineural invasion, only	1/1 (100%)	1/2 (50%)	2/4 (50%)	4/7 (57.1%)
Mucinous subtype, only	1/16 (6.3%)	2/10 (20%)	5/30 (16.7%)	8/56 (14.3%)
High-grade, only	1/17 (5.9%)	0/11 (0%)	2/25 (8%)	3/53 (5.7%)

(*Ann Surg* 2022;275:e148–e154)

Risk analysis of submucosal invasive rectal carcinomas for lymph node metastasis to expand indication criteria for endoscopic resection

Shiro Oka,[1] Shinji Tanaka,[1] Koichi Nakadoi,[2] Hiroyuki Kanao[1] and Kazuaki Chayama[2]

Depth of SM invasion (μm)	No. cases	Incidence of LN metastasis (%)	95% CI	No. of Limited cases	Limited cases[‡] of LN metastasis (%)	95% CI
<1000	29	1 (3.5)	0.09–17.8	14	0 (0)	0.00–19.3
<2000	54	3 (5.6)	1.16–15.4	22	0 (0)	0.00–12.7
<3000	74	7 (9.5)	3.89–18.5	29	1 (3.5)	0.09–17.2
<4000	90	10 (11.1)	5.46–19.5	37	1 (2.7)	0.07–14.2
<5000	103	11 (10.7)	5.45–18.3	40	1 (2.5)	0.06–12.9
Total	118	13 (11.0)	6.00–18.1	46	1 (2.2)	0.06–11.5

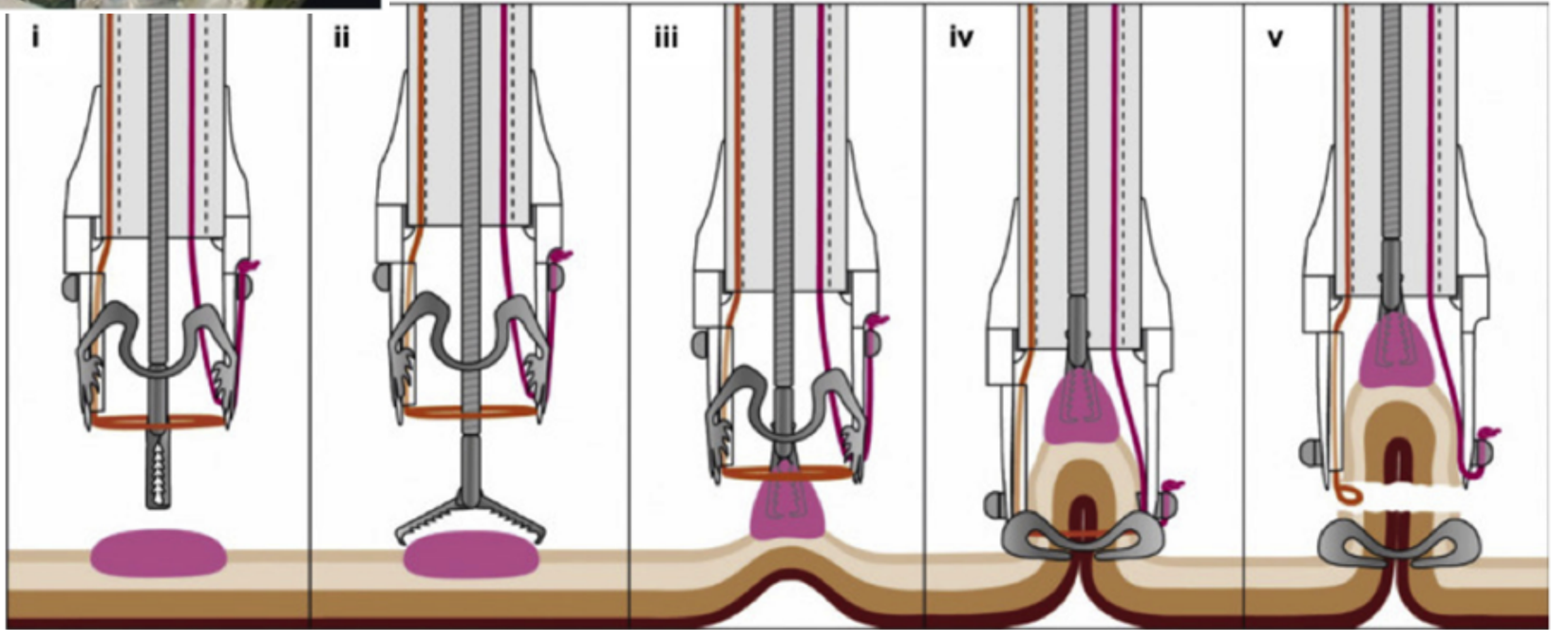
[†]$n = 118$.
[‡]Limited submucosal invasive carcinomas that were well-/moderately differentiated/papillary adenocarcinoma, with no vascular invasion and only grade 1 tumor budding.

Digestive Endoscopy 2013; **25** (Suppl. 2): 21–25

OBTENTION D'UNE MARGE PROFONDE R0 quelque soit l'infiltration dans la sous muqueuse ++++ :

- ***Amélioration du taux de résection RO***
  - **Dissection endoscopie > Mucosectomie** quelque soit la taille +++
    - 50% des cancers T1 ont un diamètre < 20 mm
  - Etude Hollandaise sur **FTRD** en 1e intention des cancers T1 ont un diamètre < 20 mm
  - **Dissection intermusculaire**
  - **Résection endoscopique transpariétale** (TEM endoscopique)
- ***Rattrapage d'une Marge R1 (FTRD)***

Relevance of polyp size for primary endoscopic full-thickness resection of suspected T1 colorectal cancers



(VideoGIE 2019;4:535-8.)

2022

Relevance of polyp size for primary endoscopic full-thickness resection of suspected T1 colorectal cancers

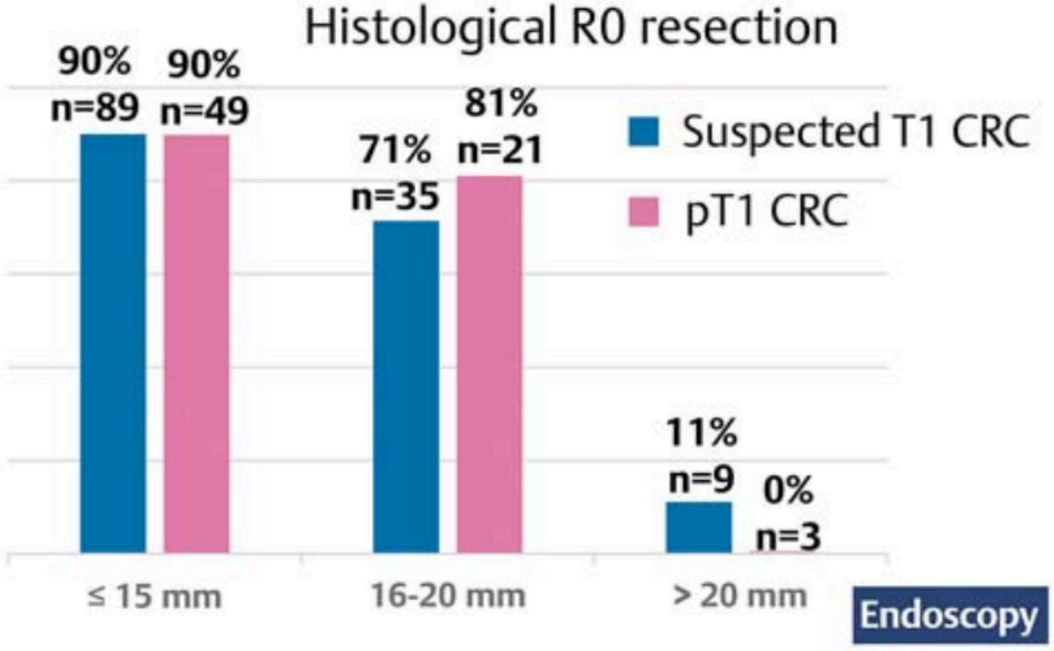
Endoscopic full-thickness resection for suspected T1 CRC

Retrospective multi-center cohort study

- 136 suspected T1 CRCs
- Median size 15 mm
- Included 75 pT1 CRCs

Technical success: 88%

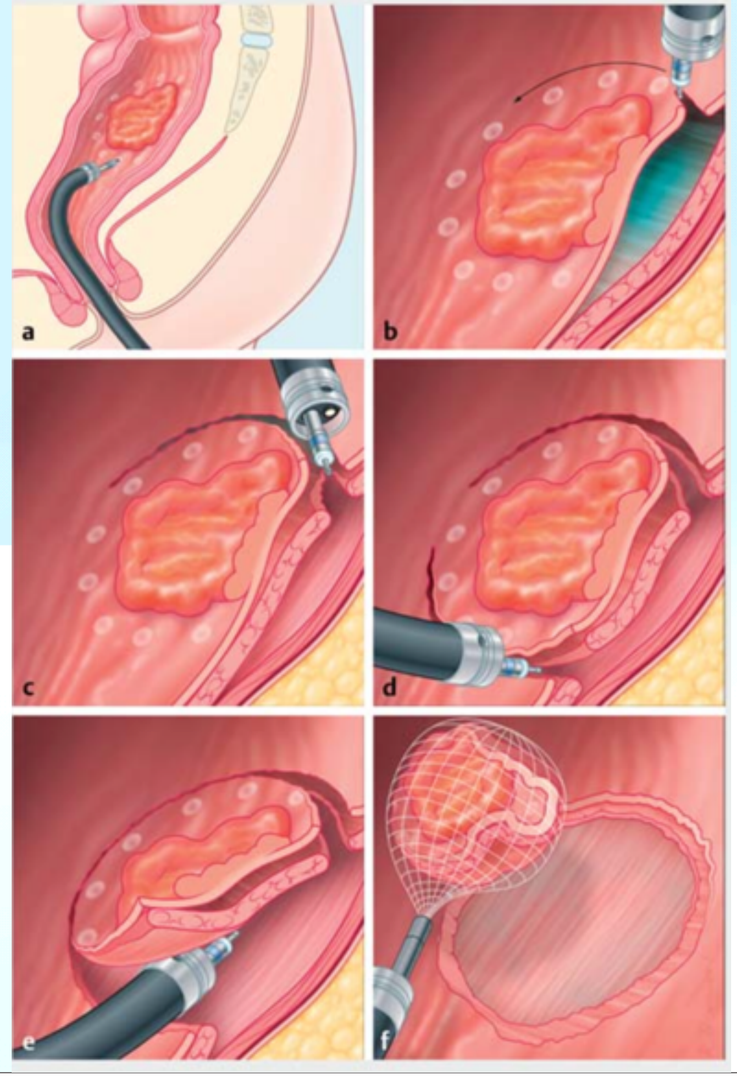
Histological R0 resection: 80%

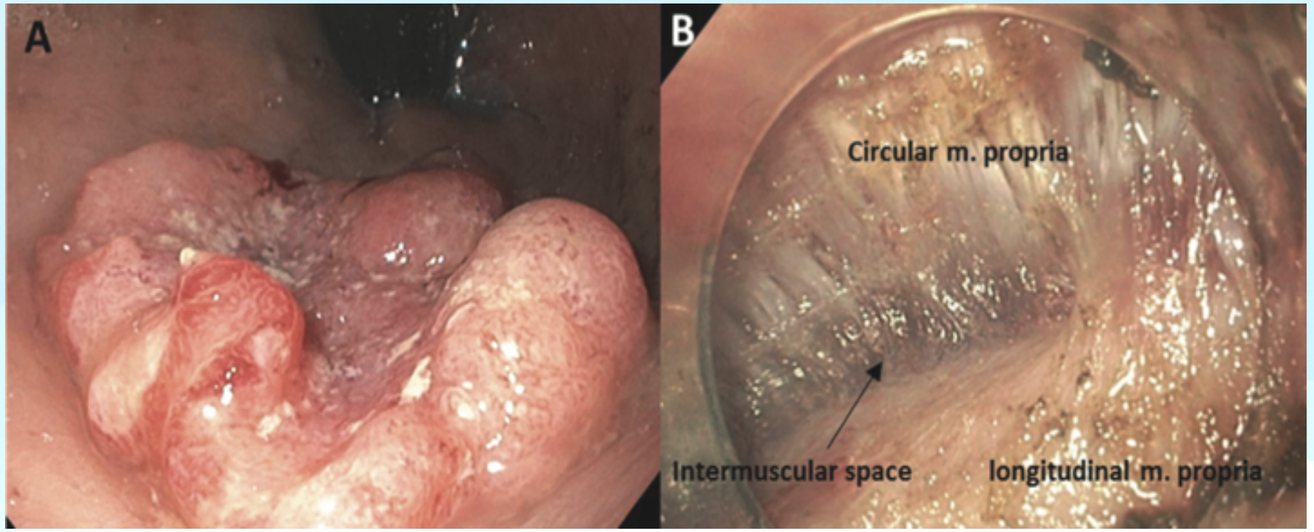


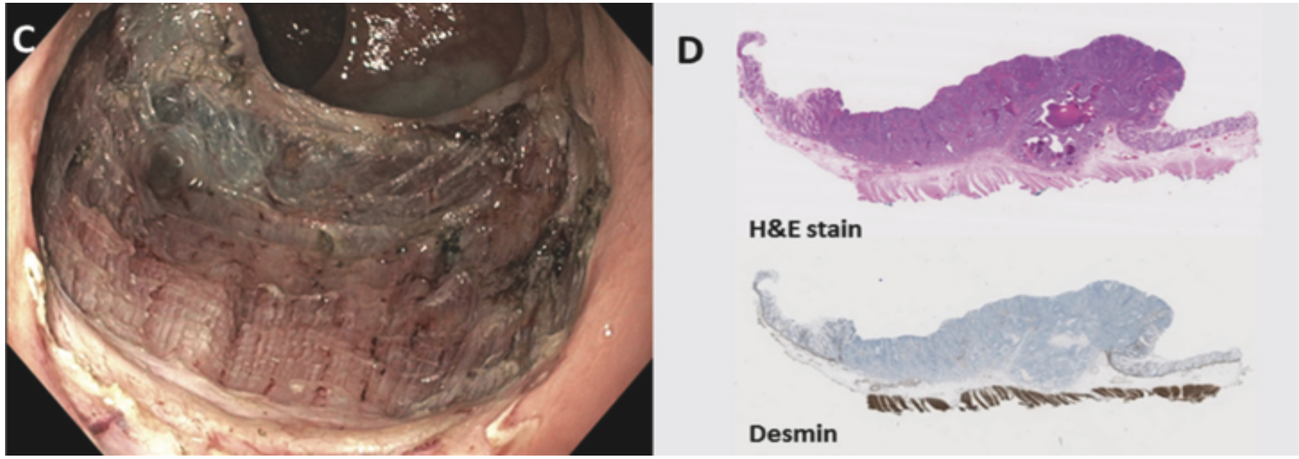
Didden Paul et al. Relevance of polyp … Endoscopy 2022; 54: 1062–1070 |

2022

DISSECTION INTER MUSCULAIRE







Endoscopic intermuscular dissection for deep submucosal invasive cancer in the rectum: a new endoscopic approach

Moons Leon MG et al. Endoscopic intermuscular dissection … Endoscopy 2022; 54: 993–998 |

2022

DISSECTION INTER MUSCULAIRE

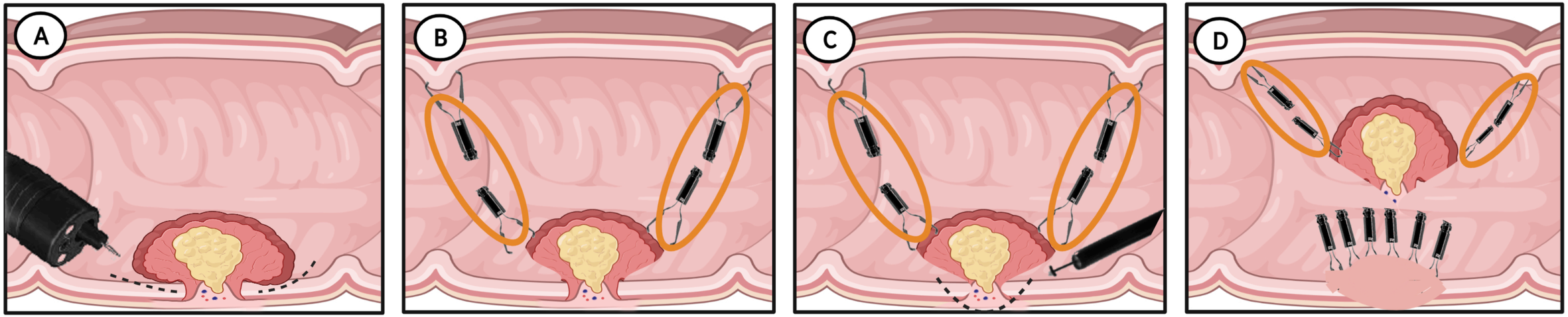
Technical success		
▪ Overall	64/67 (96 %)	89 %–99 %
▪ pT1	44/45 (98 %)	90 %–100 %
▪ pT1 with deep submucosal invasion	39/40 (98 %)	89 %–100 %
R0 rate		
▪ Overall	54/67 (81 %)	70 %–89 %
▪ Technically successful cases	54/64 (84 %)	74 %–92 %
▪ pT1	41/45 (91 %)	80 %–97 %
▪ pT1 with deep submucosal invasion	36/40 (90 %)	78 %–97 %
Curative resection rate		
▪ Overall	30/67 (45 %)	33 %–57 %
▪ Technically successful cases	30/64 (47 %)	35 %–59 %
▪ pT1	22/45 (49 %)	35 %–63 %
▪ pT1 with deep submucosal invasion	18/40 (45 %)	30 %–60 %

Moons Leon MG et al. Endoscopic intermuscular dissection … Endoscopy 2022; 54: 993–998 |

RESECTION TRANSPARIETALE ou « FLEXIBLE TEM »

2023

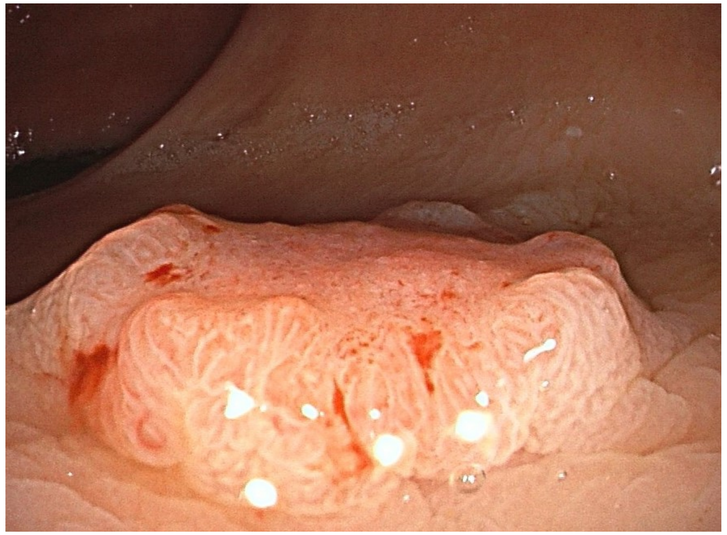
Graphical representation of flexible endoscope Transanal Endoscopic Microsurgery



Chaussade S , Flavius S et al 2023 Surg End

Guillaumot Marie-Anne et al. Endoscopic full-thickness resection … Endoscopy International Open 2020; 08: E611–E616

RESECTION TRANSPARIETALE ou FLEXIBLE TEM



Chaussade S , Flavius S et al 2023 Surg End

Current problems and perspectives of pathological risk factors for lymph node metastasis in T1 colorectal cancer: Systematic review

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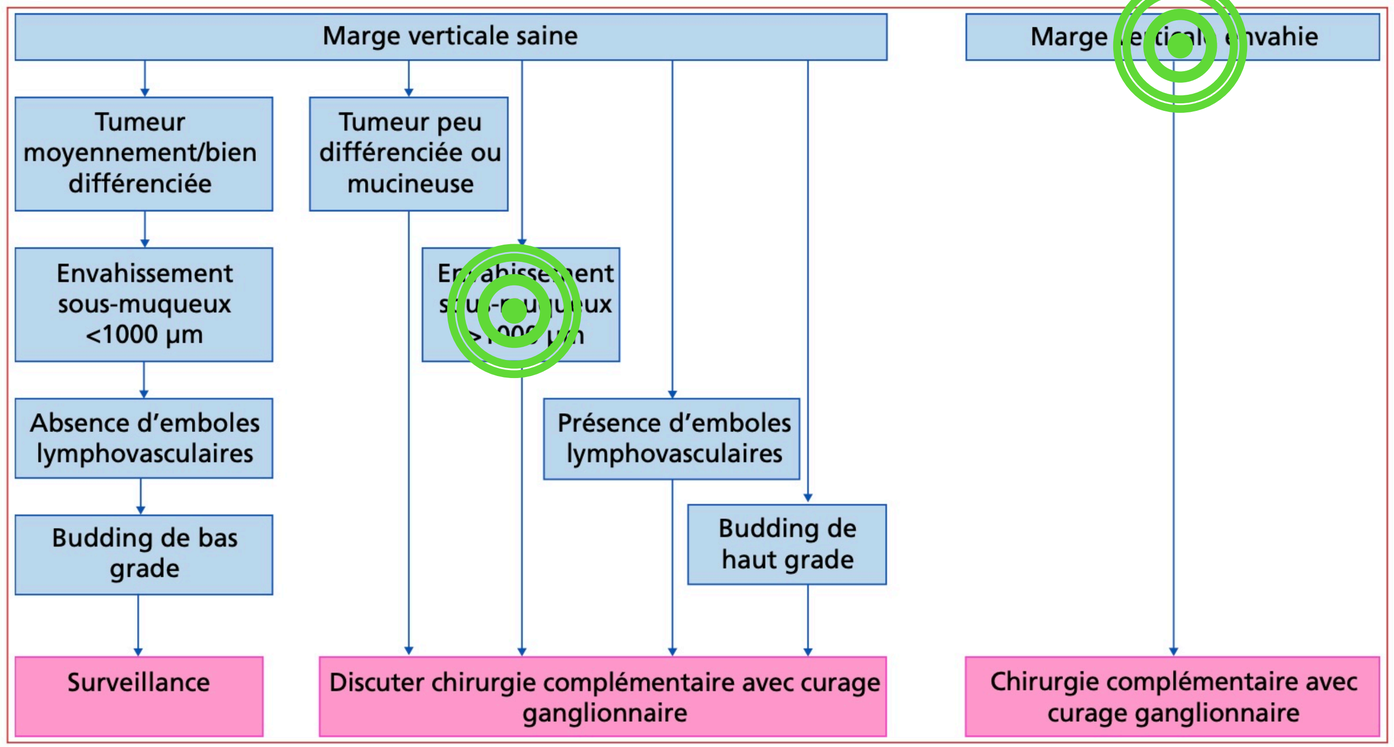

AUTRES FACTEURS : ?

Digestive Endoscopy 2022; **34**: 901–912

Left-sided location is a risk factor for lymph node metastasis of T1 colorectal cancer: a single-center retrospective study

Kenichi Mochizuki[1] · Shin-ei Kudo[1] · Katsuro Ichimasa[1] · Yuta Kouyama[1] · Shingo Matsudaira[1] · Yuki Takashina[1] · Yasuharu Maeda[1] · Tomoyuki Ishigaki[1] · Hiroki Nakamura[1] · Naoya Toyoshima[1] · Yuichi Mori[1] · Masashi Misawa[1] · Noriyuki Ogata[1] · Toyoki Kudo[1] · Takemasa Hayashi[1] · Kunihiko Wakamura[1] · Naruhiko Sawada[1] · Fumio Ishida[1] · Hideyuki Miyachi[1]

SIEGE DE LA TUMEUR

	C ($n=61$)	A ($n=168$)	T ($n=137$)	D ($n=49$)	S ($n=516$)	R ($n=211$)
Age (years)	68.8 ± 11.2	68.7 ± 11.5	68.6 ± 11.9	68.6 ± 12.9	64.9 ± 11.2	63.9 ± 11.5
Sex (male)	32 (52.5)	108 (64.3)	92 (67.2)	35 (71.4)	322 (62.4)	134 (63.5)
Tumor size (mm)	26.3 ± 11.4	22.8 ± 14.0	20.6 ± 11.0	20.0 ± 9.8	19.0 ± 10.8	26.2 ± 19.8
Morphology						
Flat type	32 (52.5)	88 (52.4)	74 (54.0)	26 (53.1)	108 (20.9)	80 (37.9)
Protruded type	17 (27.9)	34 (20.2)	24 (17.5)	18 (36.7)	302 (58.5)	77 (36.5)
Depressed type	12 (19.7)	46 (27.4)	39 (28.5)	5 (10.2)	106 (20.5)	54 (25.6)
Initial treatment (endoscopic resection)	38 (62.3)	101 (60.1)	86 (62.8)	34 (69.4)	352 (68.2)	124 (58.8)
Treatment (surgical resection[a])	38 (62.3)	104 (61.9)	76 (55.5)	23 (46.9)	363 (70.3)	141 (66.8)
Depth of invasion (T1b)	43 (70.5)	119 (70.8)	88 (64.2)	29 (59.2)	401 (77.7)	178 (84.4)
Histological grade (Por or Muc[b])	12 (19.7)	22 (13.1)	25 (18.2)	2 (4.1)	63 (12.2)	25 (11.8)
Vascular invasion (+)	13 (21.3)	43 (25.6)	33 (24.1)	5 (10.2)	129 (25.0)	82 (38.9)
Lymphatic invasion (+)	14 (23.0)	38 (22.6)	33 (24.1)	8 (16.3)	169 (32.8)	77 (36.5)
Tumor budding (BD 2 or 3)	10 (16.4)	32 (19.0)	23 (16.8)	7 (14.3)	114 (22.1)	50 (23.7)
Lymph node metastasis (+)[c]	2/38 (5.3)	4/104 (3.8)	6/76 (7.9)	1/23 (4.3)	45/363 (12.4)	17/141 (12.1)
Local lymph node recurrence (+)[d]	0/23 (0)	0/64 (0)	0/61 (0)	0/26 (0)	1/153 (0.7)	4/70 (5.7)

Int J Colorectal Dis (2020) 35:1911–1919

Lymphovascular Infiltration, Not Depth of Invasion, is the Critical Risk Factor of Metastases in Early Colorectal Cancer

Retrospective Population-based Cohort Study on Prospectively Collected Data, Including Validation

Carl-Fredrik Rönnow, MD, PhD, Victoria Arthursson, MD,* Ervin Toth, MD, PhD,† Peter-Martin Krarup, MD, PhD,‡ Ingvar Syk, MD, PhD,* and Henrik Thorlacius, MD, PhD**✉

AGE

2022

TABLE 4. Risk of Lymph Node Metastases in the Absence of Any Statistically Significant Risk Factors According to the Multivariate Analysis*

	Lymph Node Metastases
No significant risk factors*	77/1053 (7.3%)
Adjusted for age	
<50 yr	8/48 (16.7%)
50–59 yr	18/123 (14.6%)
60–69 yr	15/264 (5.7%)
70–79 yr	22/391 (5.6%)
≥80 yr	14/227 (6.2%)

*Lymphovascular invasion, perineural invasion, mucinous subtype, and age.

(*Ann Surg* 2022;275:e148–e154)

Clinical Implications of Microsatellite Instability in T1 Colorectal Cancer

Jeonghyun Kang, Hak Woo Lee, Im-kyung Kim, Nam Kyu Kim,
Seung-Kook Sohn, and Kang Young Lee

STATUT MSI/MSS
4-6% des CCR T1
DU RECTUM

Table 3. Factors Associated with Lymph Node Metastasis in T1 Colorectal Carcinoma

	Univariate	
	(%)	*p* value
Microsatellite status		
MSI-H	0 /10 (0)	0.213*
MSI-L & MSS	22/123 (17.9)	

Systematic review

BJS 2020; **107**: 1719–1730

Local recurrence after local excision of early rectal cancer: a meta-analysis of completion TME, adjuvant (chemo)radiation, or no additional treatment

S. E. van Oostendorp[1], L. J. H. Smits[1], Y. Vroom[1], R. Detering[2], M. W. Heymans[3], L. M. G. Moons[4], P. J. Tanis[2], E. J. R. de Graaf[5], C. Cunningham[6], Q. Denost[7], M. Kusters[1] and J. B. Tuynman[1]

Table 1 Weighted average local recurrence rates

	Local recurrence					
	NAT		cTME		aCRT	
	Proportion of patients	Weighted average (%)	Proportion of patients	Weighted average (%)	Proportion of patients	Weighted average (%)
pT1	268 of 3050	8·1 (6·6, 9·9)	5 of 180	2·8 (1·2, 6·5)	24 of 385	4·8 (2·3, 9·8)
Low risk	75 of 1019	6·7 (4·8, 9·3)	0 of 28*	0	0 of 1*	0
High risk	44 of 282	13·6 (8·0, 22·0)	5 of 123	4·1 (1·7, 9·4)	10 of 254	3·9 (2·0, 7·5)
pT2	136 of 545	28·9 (22·3, 36·4)	3 of 70	4 (1, 13)	66 of 444	14·7 (11·2, 19·0)

Values in parentheses are 95 per cent confidence intervals. *Results from a single study. NAT, no additional treatment; cTME, completion total mesorectal excision; aCRT, adjuvant (chemo)radiotherapy.

CONCLUSION

- Augmentation de l’incidence des CCR T1
- Aucun examen fiable pour apprécier la profondeur de l’atteinte dans la sous muqueuse
- Nécessite d’une resection R0 avec des techniques endoscopiques avancées
- Importance de la qualité de l’examen histologique
- RCP Tumeurs superficielles

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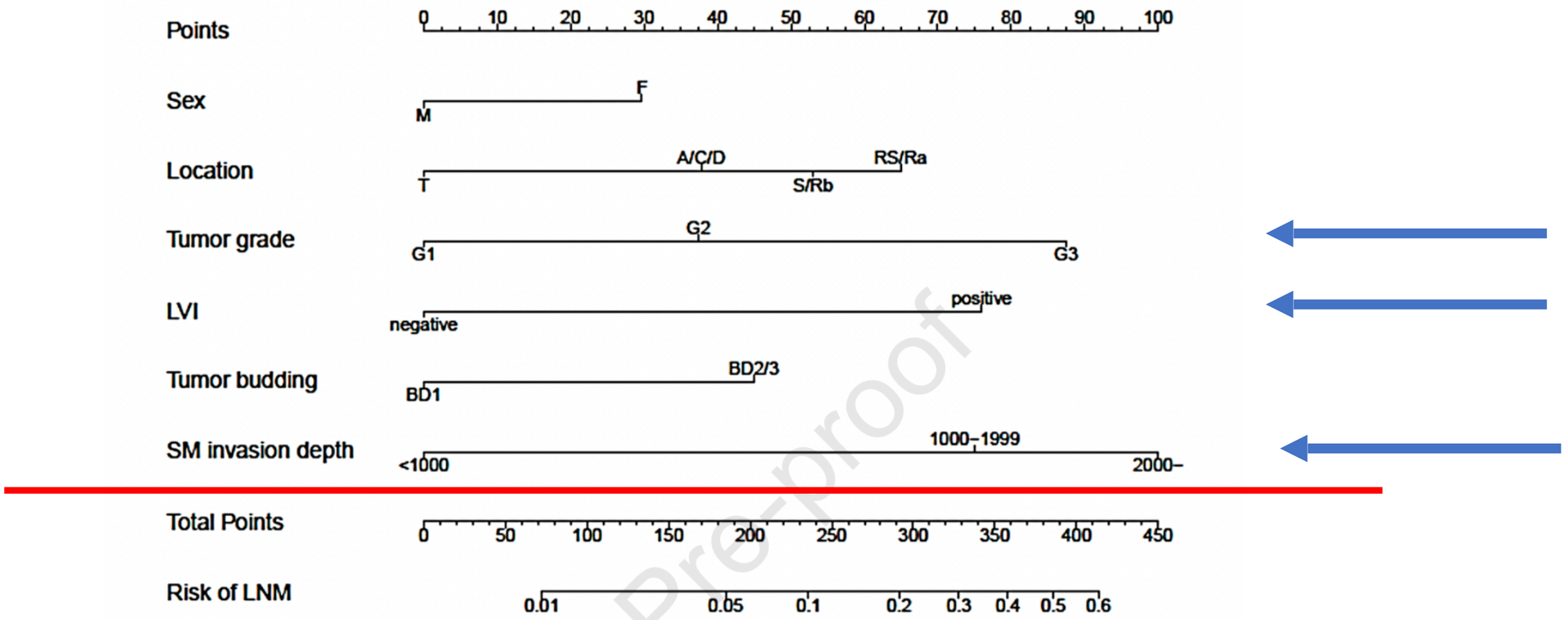

M, male; F, female; C, cecum; A: ascending colon, T: transverse colon, D: descending colon, S: sigmoid colon, R: rectum (including rectosigmoid), RS, rectosigmoid; Ra, upper rectum; Rb, lower rectum; LVI: lymphovascular invasion; LNM, lymph node metastasis

BJS 2020; 107: 1719–1730

Systematic review

Local recurrence after local excision of early rectal cancer: a meta-analysis of completion TME, adjuvant (chemo)radiation, or no additional treatment

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Table 2 Weighted average distant recurrence rates

	Distant recurrence					
	NAT		cTME		aCRT	
	Proportion of patients	Weighted average (%)	Proportion of patients	Weighted average (%)	Proportion of patients	Weighted average (%)
pT1	101 of 2658	3·4 (2·5, 4·6)	8 of 165	4·9 (2·4, 9·4)	14 of 280	5·0 (3·0, 8·3)
Low risk	25 of 783	3·2 (2·2, 4·7)	1 of 28*	4	0 of 1*	0
High risk	20 of 233	7·2 (3·6, 13·9)	6 of 108	5·6 (2·5, 11·8)	8 of 208	3·9 (1·9, 7·5)
pT2	28 of 398	6·2 (2·8, 13·0)	4 of 55	7 (3, 18)	17 of 254	5·8 (2·7, 11·9)

Values in parentheses are 95 per cent confidence intervals. *Results from a single study. NAT, no additional treatment; cTME, completion total mesorectal excision; aCRT, adjuvant (chemo)radiotherapy.