



Ospedale Classificato Equiparato
Sacro Cuore - Don Calabria
Presidio Ospedaliero Accreditato - Regione Veneto
U.O.C. Chirurgia Generale
Direttore: Dott. G. Ruffo

4° CORSO DI TECNICA CHIRURGICA LAPAROSCOPICA DEL COLON E DEL RETTO

Direttori del corso:
CA. SARTORI - G. RUFFO

14-15-16 maggio 2014

NEGRAR - VERONA



4° CORSO DI TECNICA CHIRURGICA LAPAROSCOPICA DEL COLON-RETTO

DEL COGOM-BELLO

Strategie terapeutiche nel
paziente con carcinoma del retto
extraperitoneale

GIULIANO BARUGOLA



Chirurgia Laparoscopica

WWW.CHIRURGIALAPAROSCOPICA.EU

Team Multidisciplinare e risultati...

Il controllo della qualità del lavoro

Rilettura critica dell'esame istologico

Follow up oncologico a distanza

Follow up funzionale a distanza

le fonti...

LINEE GUIDA TUMORI DEL COLON RETTO



Come leggere le raccomandazioni LG Colon Retto 2013

- I. Raccomandazioni prodotte valutando i livelli di evidenza con la scala suggerita dallo Scottish Intercollegiate Guidelines network (SIGN**)

National Cancer Institute

at the National Institutes of Health

We Can Answer Your Questions

1-800-4-CANCER

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Rectal Cancer Treatment (PDQ®)



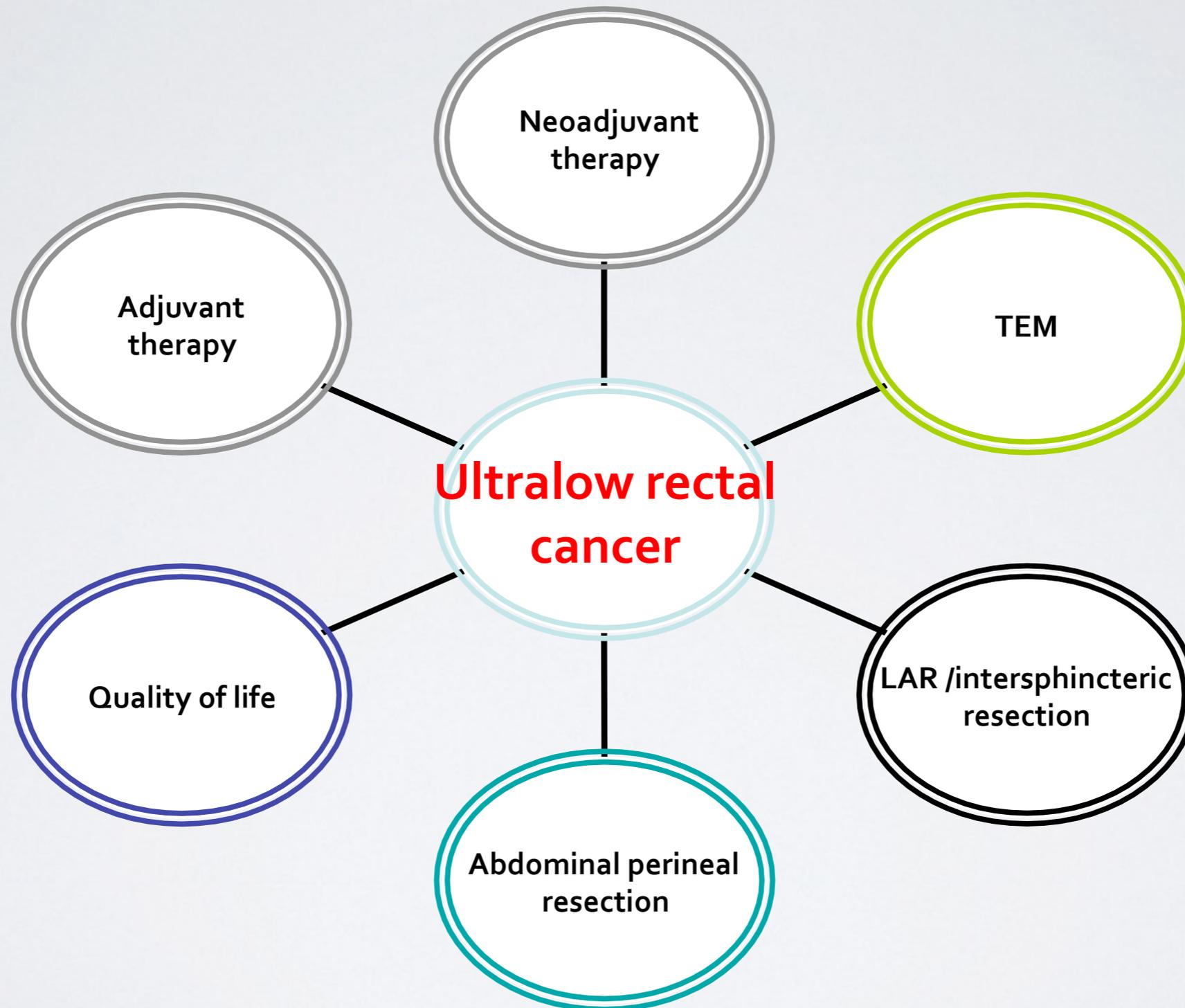
Patient Version

Health Professional Version

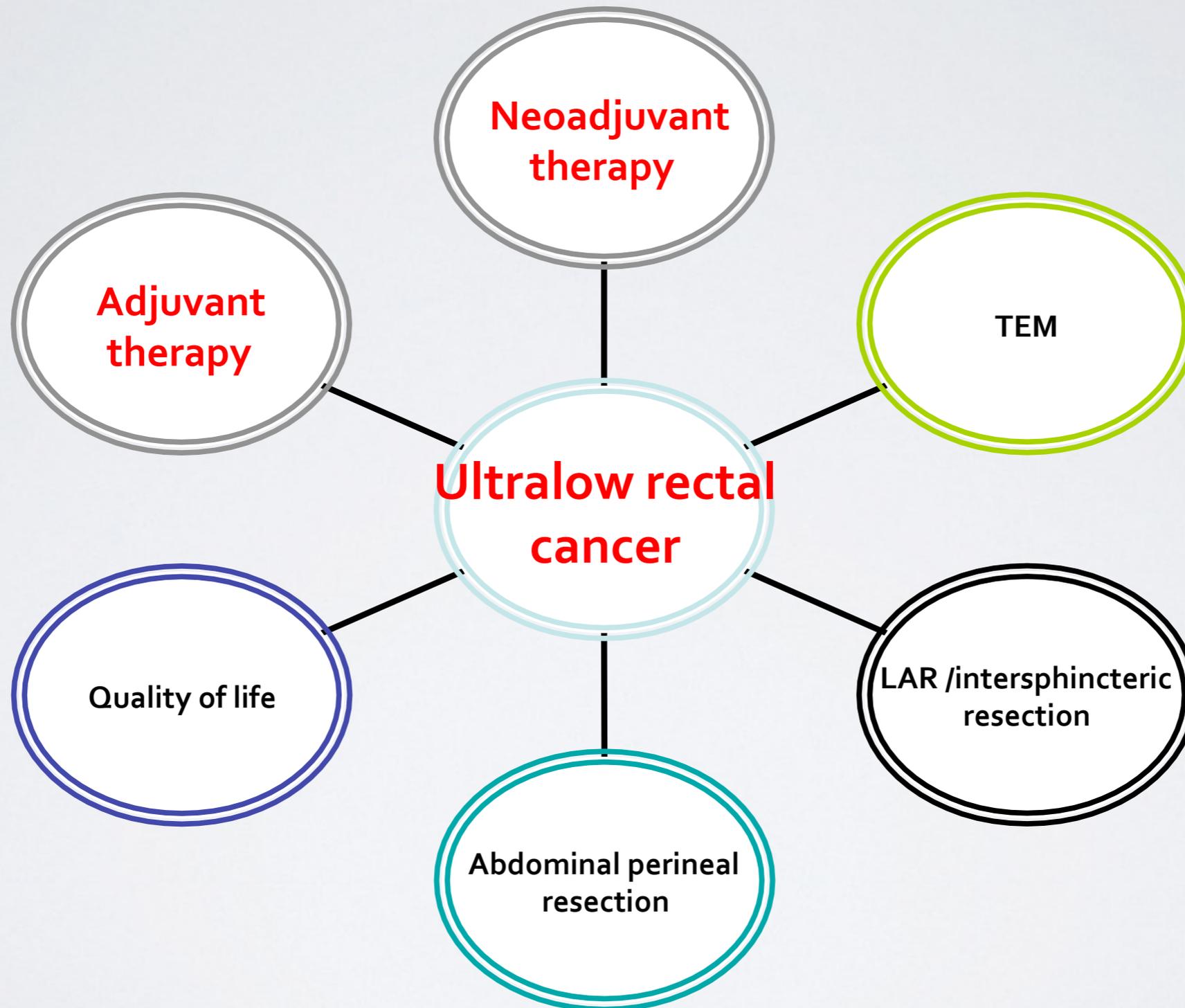
En español

Last Modified: 02/08/2013

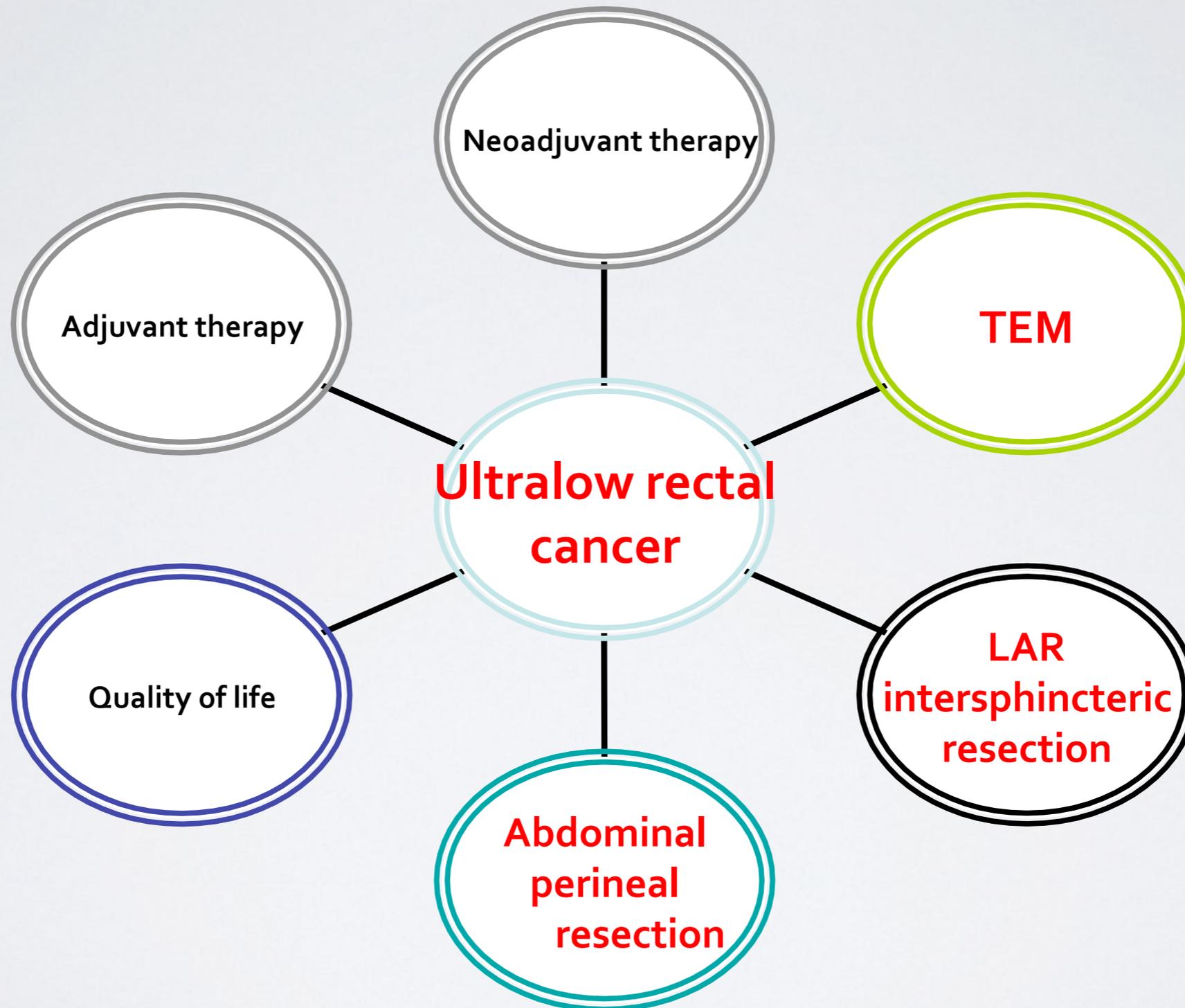
Punti di discussione



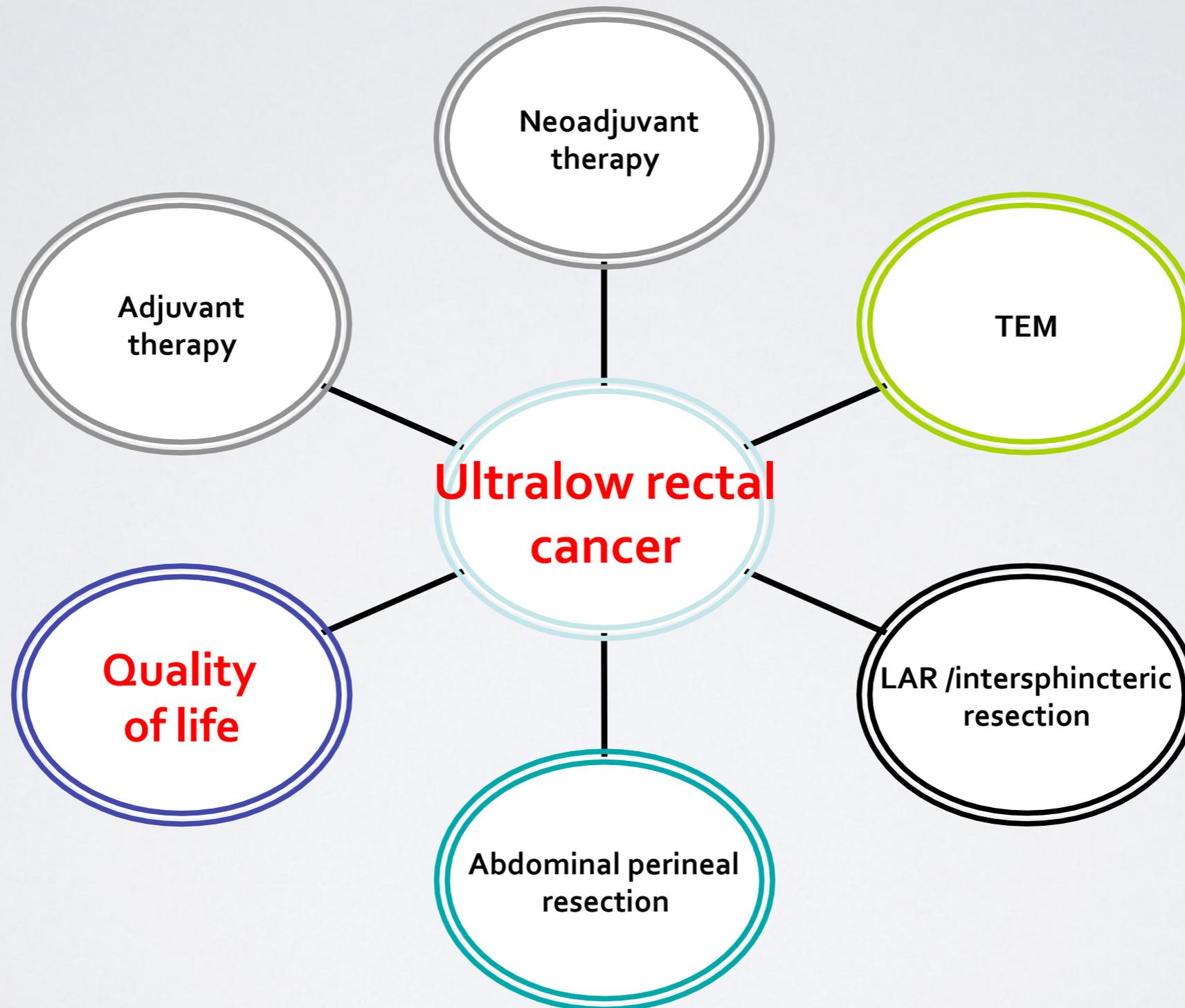
Punti di discussione



Punti di discussione



Punti di discussione



Come migliorare i risultati

Overall
Survival

Disease
free
Survival

Quality
of life

Neoadjuvant therapy

Select right surgery

Quality of surgery

Adjuvant therapy

Come migliorare i risultati

...il ruolo del chirurgo

Neoadjuvant therapy

1-

SELEZIONE

2-

TECNICA

Adjuvant therapy

I-SELEZIONE - Definizione

- Selezione del tipo corretto di procedura
- Selezione del paziente
- Selezione del corretto timing

I-SELEZIONE

Perché è così importante?

1. La chirurgia demolitiva del retto extra-peritoneale ha importanti sequele funzionali anche quando ben fatta
2. La recidiva locale condiziona severe sequele
3. La tecnologia amplia la scelta terapeutica

TNM classification

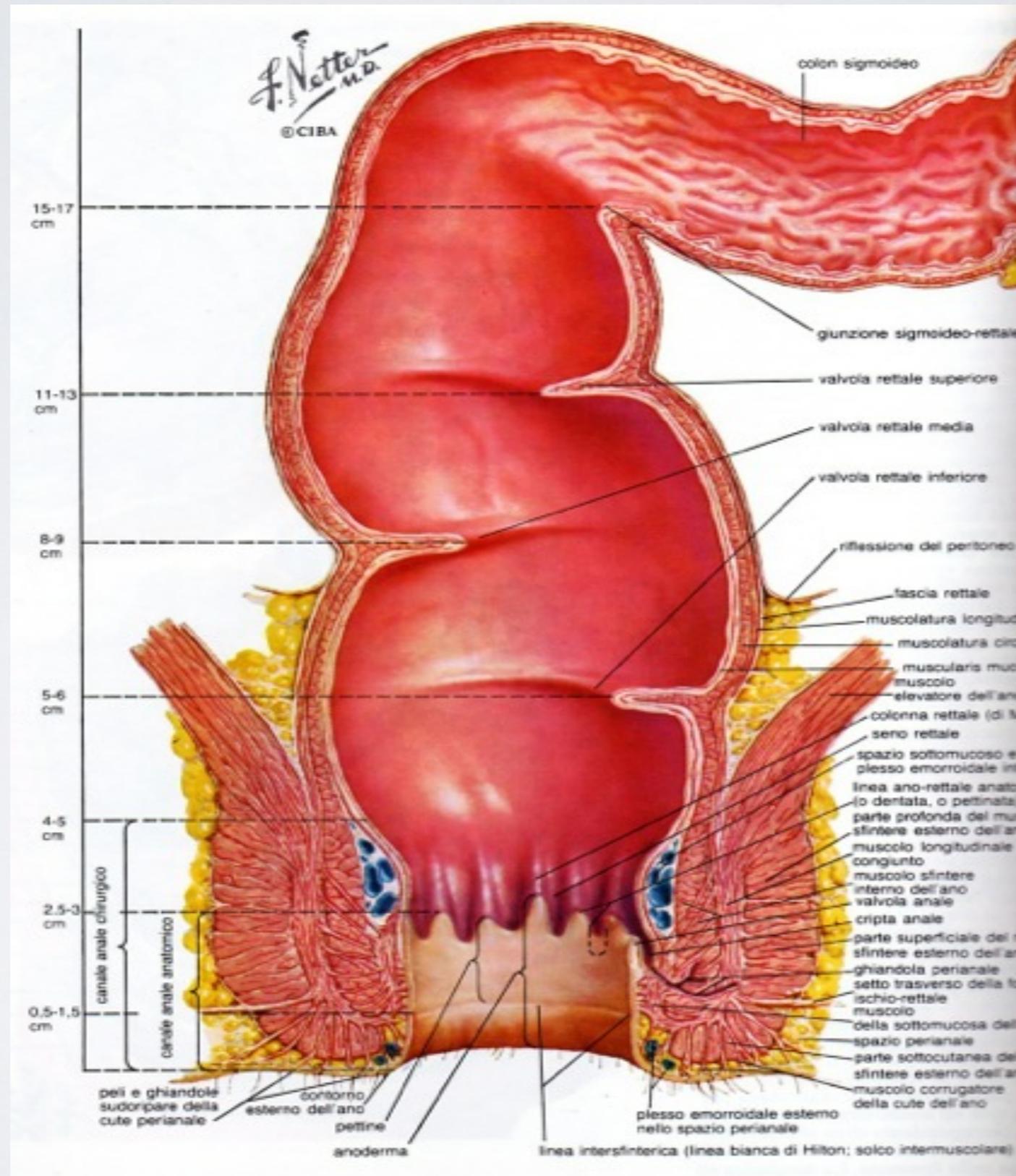
Rectal cancer: ESMO Guidelines Ann Oncol 2010

TNM	Stage	Extension to
Tis N0 M0	0	Carcinoma <i>in situ</i> : intraepithelial or invasion of lamina propria
T1 N0 M0	I	Submucosa
T2 N0 M0	I	Muscularis propria
T3 N0 M0	IIA	Subserosa/perirectal tissue
	Substaging ^a	T3a <1 mm
		T3b 1–5 mm
		T3c 5–15 mm
		T3d 15+ mm
T4 N0 M0	IIB	Perforation into visceral peritoneum (b) or invasion to other organs (a) ^b
T1–2 N1 M0	IIIA	1–3 regional nodes involved
T3–4 N1 M0	IIIB	1–3 regional nodes involved
T1–4 N2 M0	IIIC	≥4 regional nodes involved
T1–4 N1–2 M1	IV	Distant metastases

^aThis subclassification based upon an evaluation using MRI before treatment decision is clinically valuable, and used in these recommendations. It can be used also in the histopathological classification but is not validated and not incorporated in any of the TNM versions (5–7).

^bThis is the subclassification in TNM 5. It has been reversed in TNM 6 and 7.

Classificazione topografica



e nella pratica?

o un'attività



MALATTIA

TERAPIA

Stadiazione nella pratica clinica

Stadiazione nella pratica clinica



Very early (some cT1)

Early (cT1, cT2, some cT3)

More advanced (some cT2, cT3, some cT4, N+)

Disseminated disease

Stadiazione nella pratica clinica

Stadiazione nella pratica clinica



Very early (some cT1)

Early (cT1, cT2, some cT3)

More advanced (some cT2, cT3, some cT4, N+)

Disseminated disease

Very early

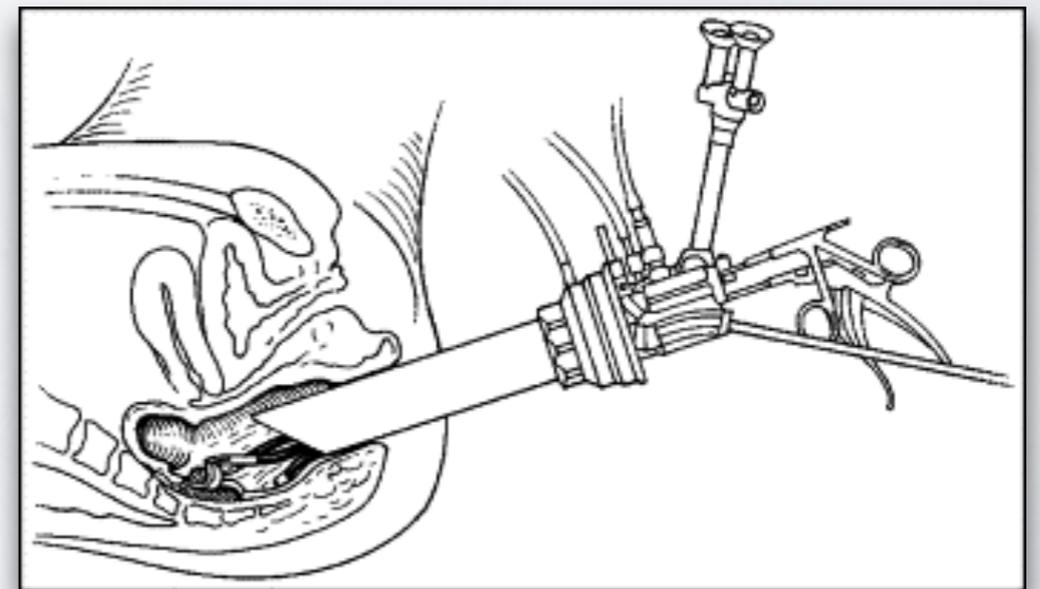
Risk-adapted treatment

- **TI Haggitt 1-3 sm1 (-2)**
- **No**

Rischio meta linfonodali <2%

Local procedure

TEM vs TAE



The T1 submucosal classification

N +	Sm1	Sm2	Sm3
Kikuchi et al	0%	10%	25 %
Asaku et al	0 %	T1 sm3 = T2 22 %	
Mayo clinic	2 %		23 %

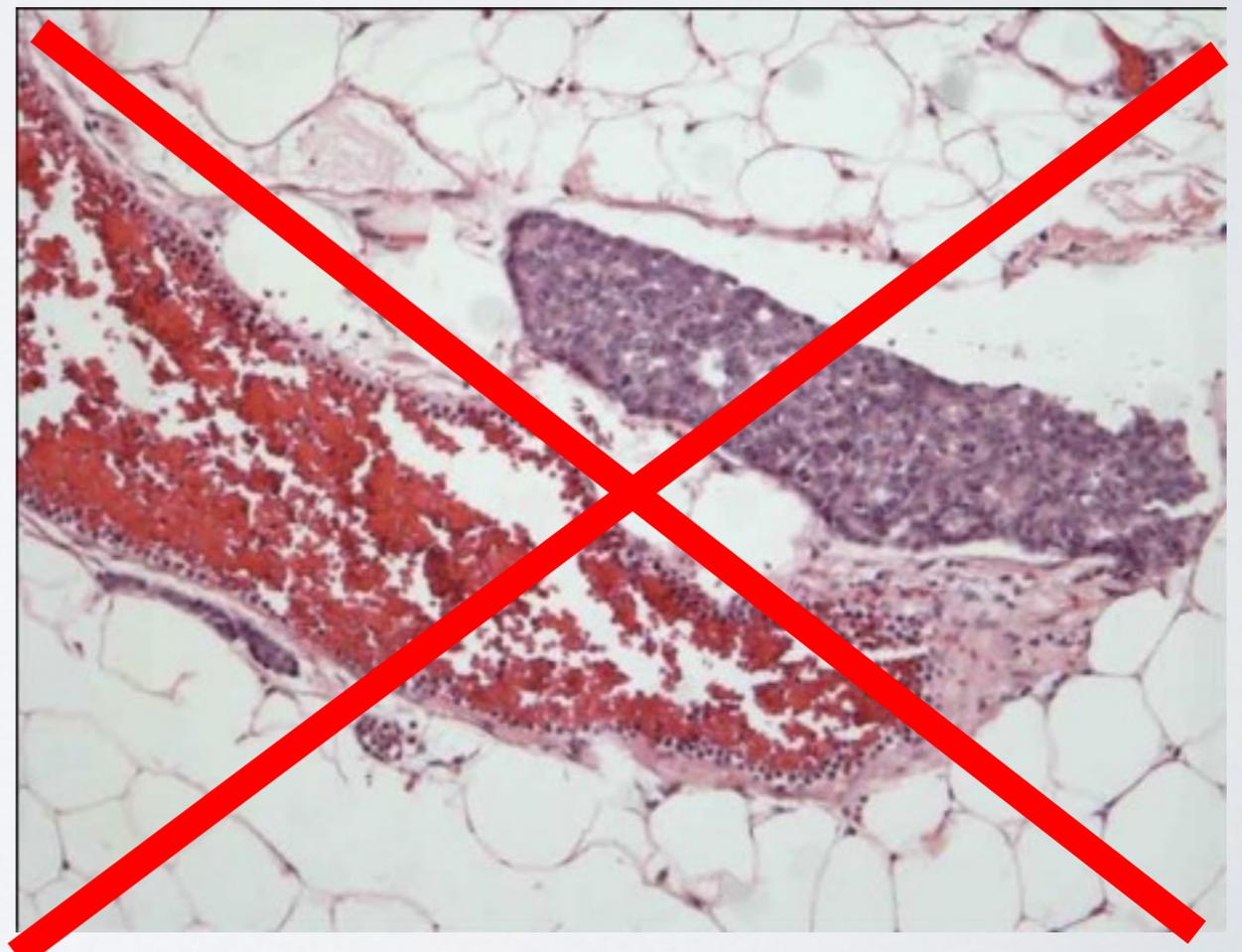
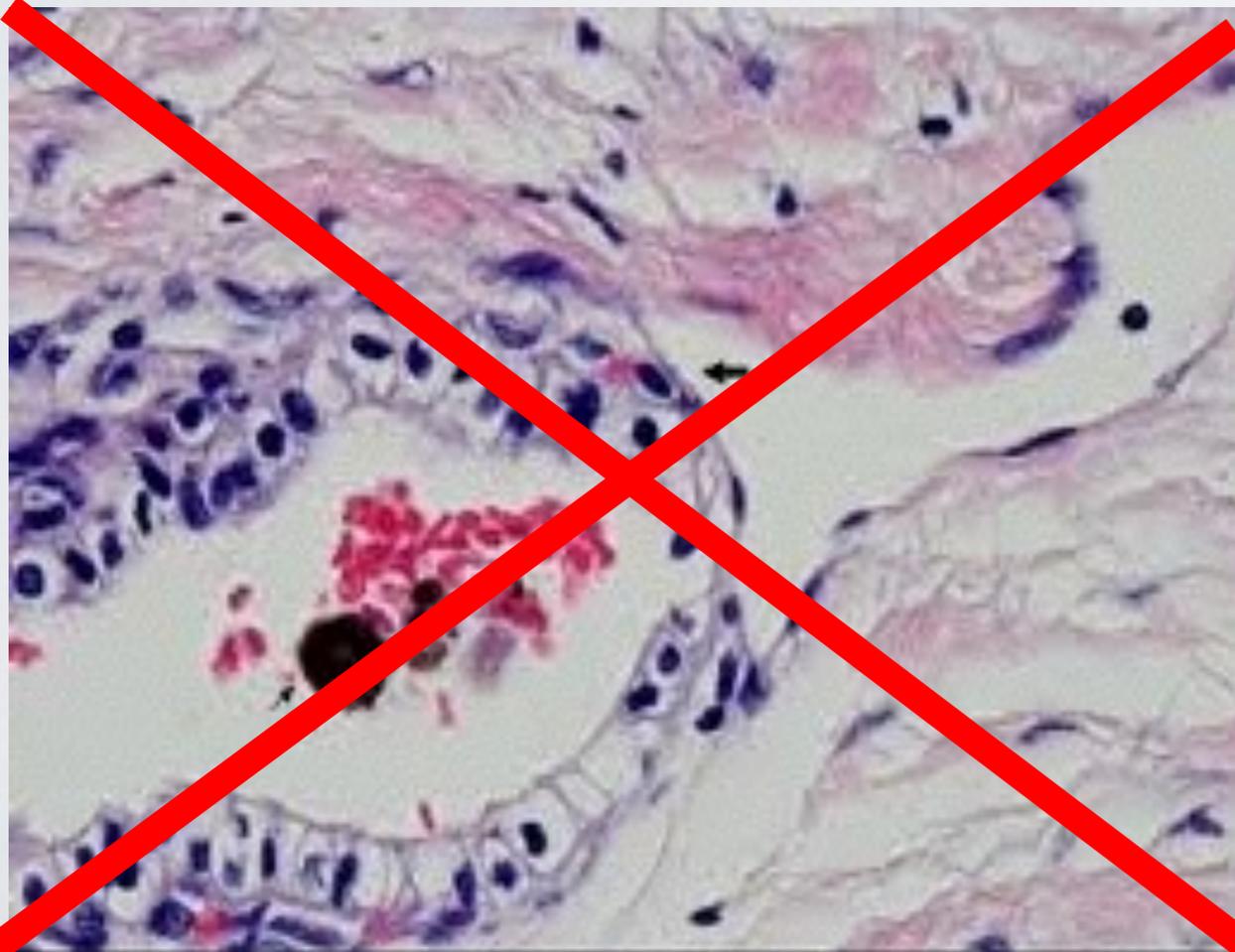
Very early

Microangiopathy

MA

Risk-adapted treatment

La resezione deve essere RADICALE e non ci deve essere invasione microvascolare o alto grading



Very early

TEM procedure

< 3 CM

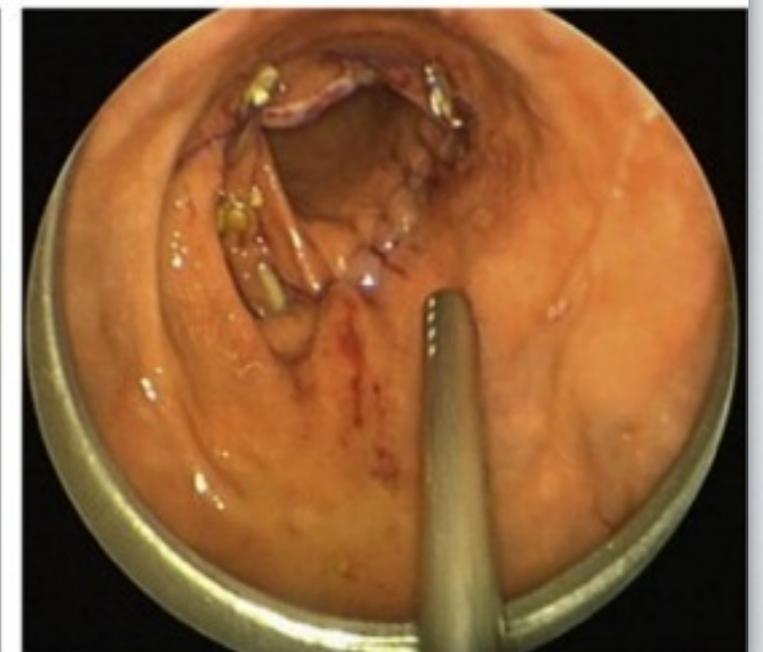
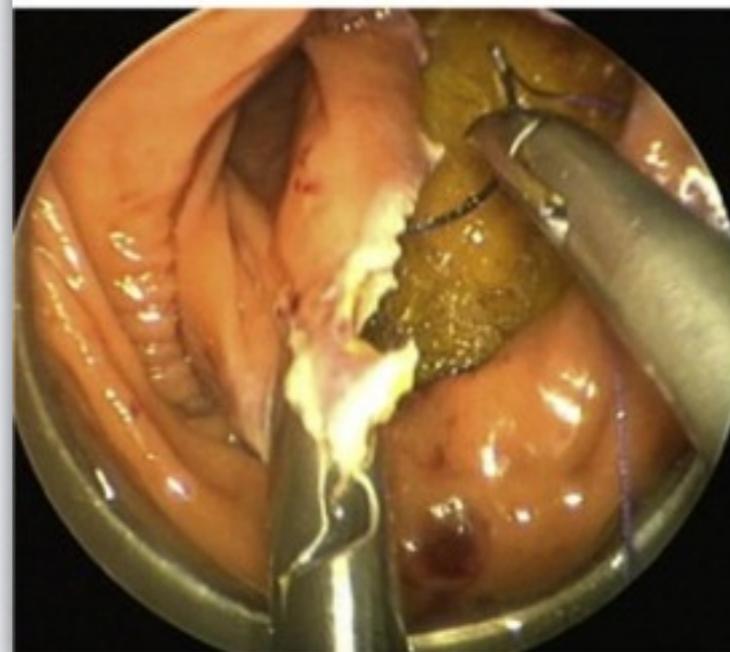
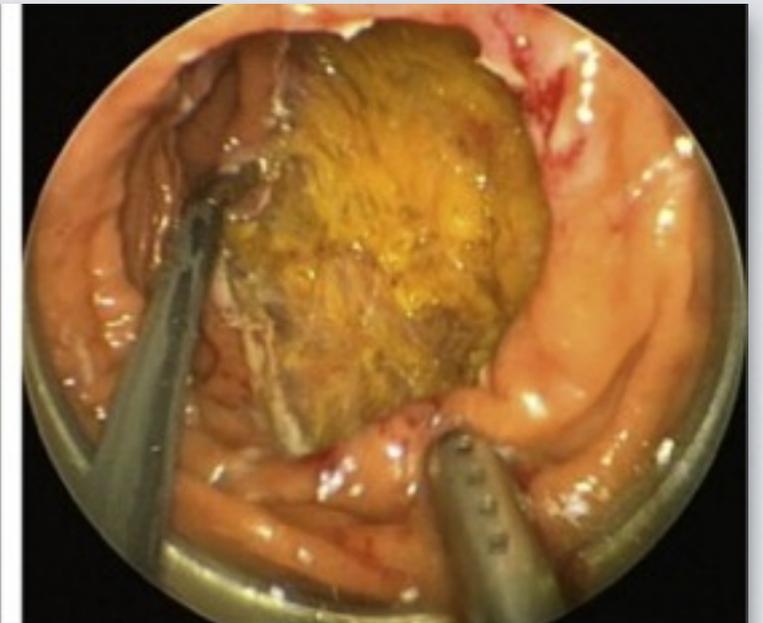
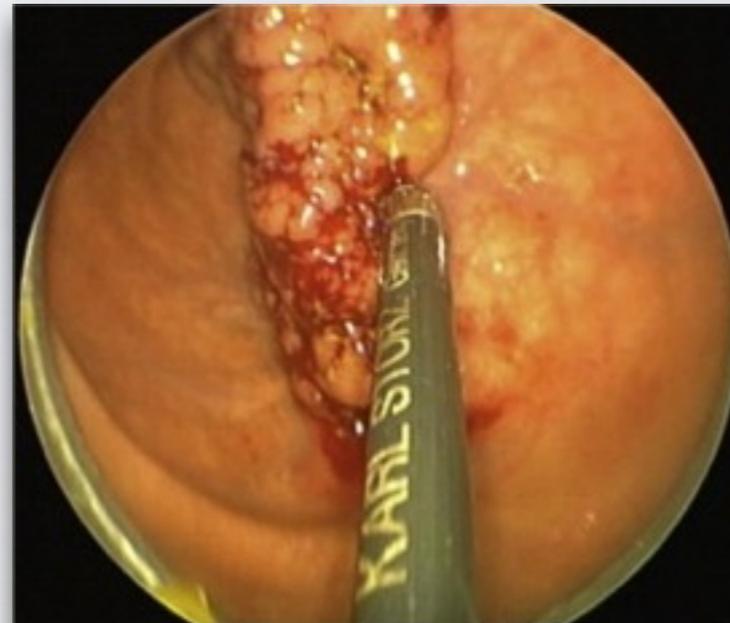
G 1-2

< 1/3

CIRCONFERENZA

FINO AL GRASSO

PERIRETTALE



Very early

TAE vs TEM

*Meta-analisi pT1

		RL
TAE	959 pz	14%
TEM	616 pz	5,5%

p<0,05

^Revisione pT1-2

TAE	89 pz	27%
TEM	82 pz	5%

p<0,05

*Cataldo, Buess et al. Transanal Endoscopic Microsurgery Principles and Techniques. Springer 2009;

^Moore et Cataldo; Dis Colon Rectum 171 pts 2008

Stadiazione nella pratica clinica

Stadiazione nella pratica clinica



Very early (some cT1)

Early (cT1, cT2, some cT3)

More advanced (some cT2, cT3, some cT4, N+)

Disseminated disease

- **T1 Haggitt 4 sm 3 (-2)**
- **T2**
- **good T3 (cCRM-) sopra gli elevatori**
- **N0**

rischio meta linfonodali > 10%

Chirurgia radicale e CRT postoperatoria

RESEZIONE ULTRABASSA e anastomosi coloanale
RESEZIONE INTERSFINTERICA e anastomosi coloanale
TME

Early

TEM procedure

IN CONSIDERAZIONE DEL
“PESO DELLA CHIRURGIA ”
SI STANNO VALUTANDO STRADE
ALTERNATIVE

Long term results in patients with T2-3 N0 distal rectal cancer undergoing radiotherapy before transanal endoscopic microsurgery

Br.J.Surg.2005;92(12):1546-52

Lezoche et al

La sopravvivenza libera da malattia ad un f-up di 90 mesi fu dell'89 % e la sopravvivenza complessiva del 79%. Miles di salvataggio in 3 pz.

Stadiazione nella pratica clinica

CLASSIFICAZIONE UICHA PER I CARCINOMI



Very early (some cT1)

Early (cT1, cT2, some cT3)

More advanced (some cT2, cT3, some cT4, N+)

Disseminated disease

More advanced

Risk-adapted treatment

- **T3**
- **T4** infiltrazione organi vicini e non resecabili upfront
- **Bad T2 (cCRM+)** tumori < 5 cm dove la distanza dalla fascia mesorettale potrebbe essere < 1mm Level III
- **Any T N +**

CRT preoperatoria e chirurgia radicale

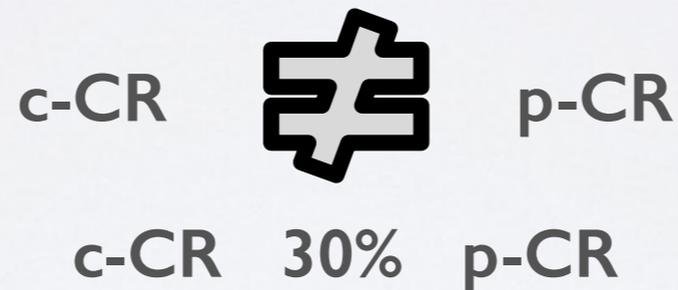
RESEZIONE ULTRABASSA e anastomosi coloanale
RESEZIONE INTERSFINTERICA e anastomosi coloanale
AMPUTAZIONE ADDOMINO PERINEALE
TME technique

Il “problema” dei cCR dopo CRT

Risk-adapted treatment

Post CRT neoadiuvante si assiste ad una risposta patologica completa di circa 15-20%

p-CR miglior prognosi



La sfida è come prevedere clinicamente una p-CR

Il “problema” dei cCR dopo CRT - Definizione di cCR

Risk-adapted treatment

[Dis Colon Rectum](#), 2010 Dec;53(12):1692-8. doi: 10.1007/DCR.0b013e3181f42b89.

Complete clinical response after neoadjuvant chemoradiation therapy for distal rectal cancer: characterization of clinical and endoscopic findings for standardization.

[Habr-Gama A](#)¹, [Perez RO](#), [Wynn G](#), [Marks J](#), [Kessler H](#), [Gama-Rodrigues J](#).

Una cCR prevede al massimo

**Sbiancamento della mucosa, teleangiectasie
con mucosa integra**

Ulcerazioni, irregolarità del visceri e noduli devono essere valutati per
un approccio chirurgico

Il “problema” dei cCR dopo CRT - Il trattamento dei cCR

Risk-adapted treatment

1-TME

2-ESCISSIONE LOCALE

3-WATCH & WAIT

Clinical COMPLETE RESPONSE

RESEZIONE CHIRURGICA TME o ESCISSIONI LOCALI (LE/TEM)



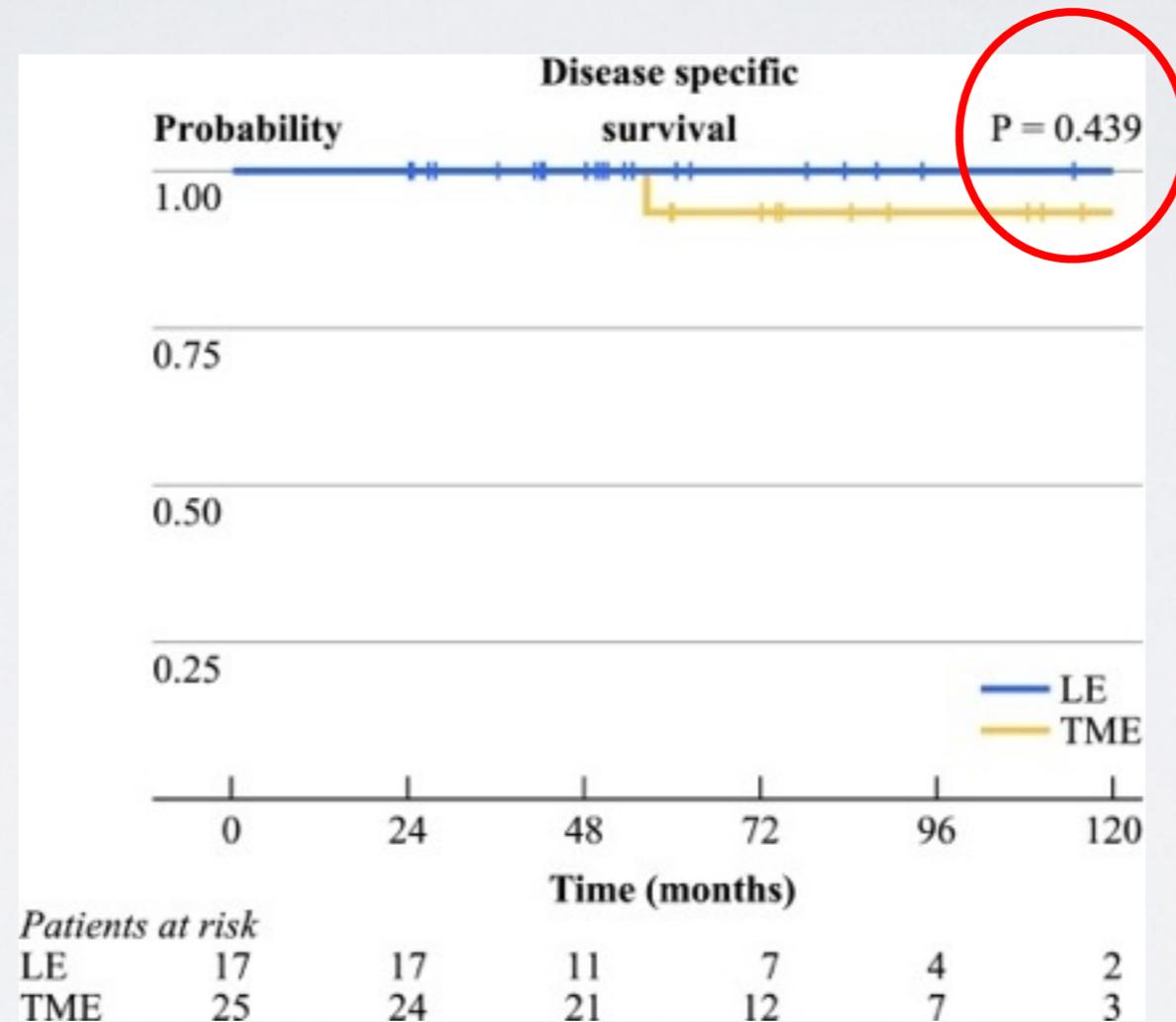
Pochi studi CONFRONTABILI con c-CR

Opinioni e casi isolati nel contesto di casistiche storiche (Liv. III)

Risultati oncologici della TME in p-CR >> ai non p-CR

Clinical COMPLETE RESPONSE

RESEZIONE CHIRURGICA TME o ESCISSIONI LOCALI (LE/TEM)



[total mesorectal excision (TME) surgery vs. full-thickness local excision (LE)]
in 42 cT3 rectal cancer patients with complete pathologic response (ypCR) to neoadjuvant chemoradiation

Clinical COMPLETE RESPONSE

WATCH AND WAIT

Complete Response (CR)
NON ALTRA TERAPIA
STRETTO MONITORAGGIO PER I PRIMI 5 ANNI



IPOTESI

METASTASI LINFONODALI SIANO STATE ERADICATE
PARALLELAMAMENTE AL TUMORE

Leading article

Non-operative management of rectal cancer after neoadjuvant chemoradiation

A. Habr-Gama¹ and R. O. Perez²

¹Emeritus Professor, University of São Paulo School of Medicine, São Paulo, Brazil, ²Department of Gastroenterology, University of São Paulo School of Medicine, São Paulo, Brazil, ^{1,2}Joaquim & Angelita Research Institute, Hospital Alemão Oswaldo Cruz, Sao Paulo, Brazil
(e-mail: gamange@uol.com.br)

Published online in Wiley InterScience (www.bjs.co.uk). DOI: 10.1002/bjs.6470

Operative Versus Nonoperative Treatment for Stage 0 Distal Rectal Cancer Following Chemoradiation Therapy *Long-term Results*

Angelita Habr-Gama, MD, Rodrigo Oliva Perez, MD,* Wladimir Nadalin, MD,†
Jorge Sabbaga, MD,† Ulysses Ribeiro Jr, MD,‡ Afonso Henrique Silva e Sousa Jr, MD,*
Fábio Guilherme Campos, MD,* Desidério Roberto Kiss, MD,* and Joaquim Gama-Rodrigues, MD,‡*

Original article

Assessment and management of the complete clinical response of rectal cancer to chemoradiotherapy

A. Habr-Gama

University of São Paulo School of Medicine, São Paulo, Brazil

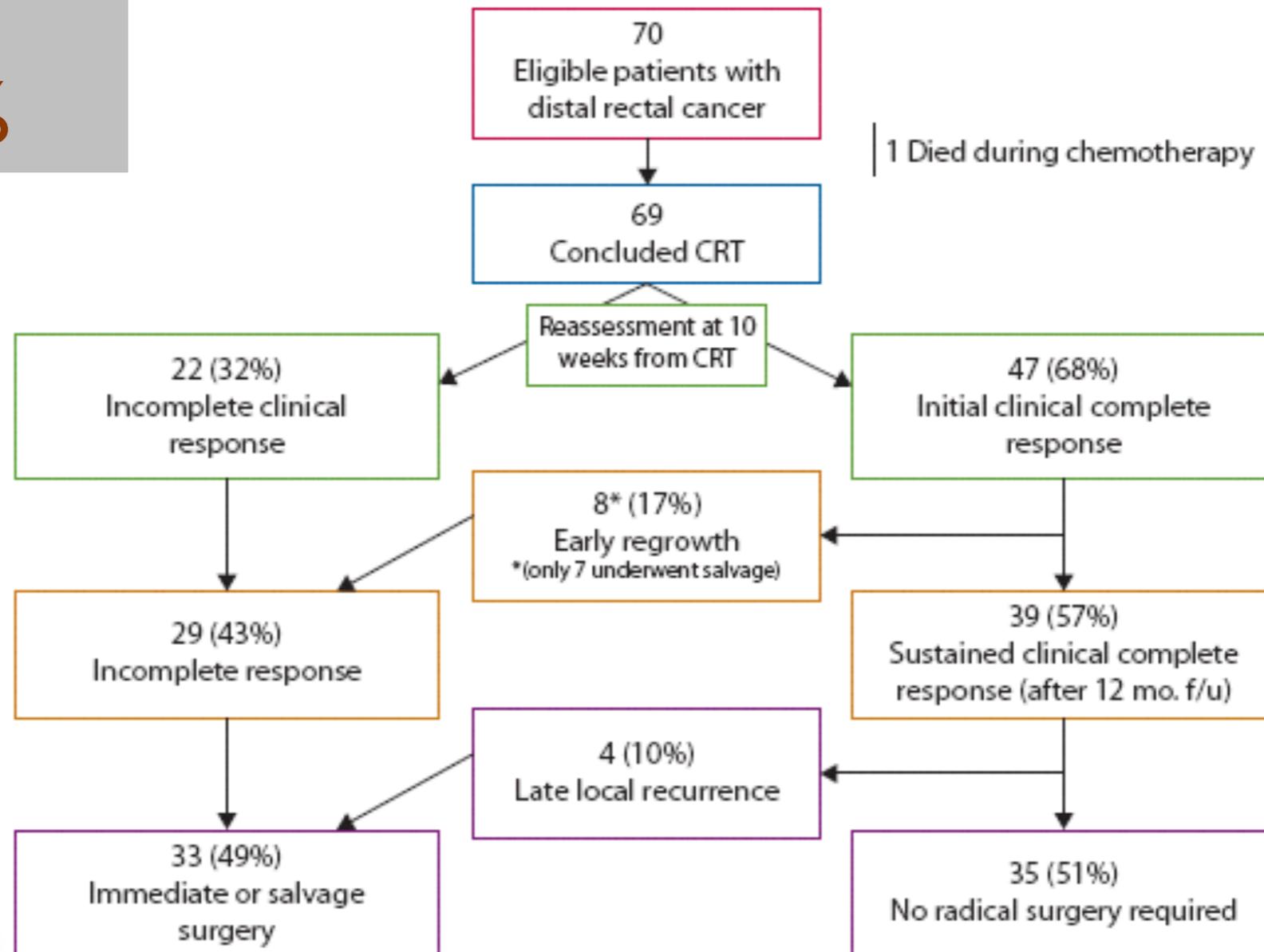
Received 10 March 2006; accepted 8 May 2006

3 - CLINICAL CR EWATCH & WAIT

Ccr 3 YRS

Os 90%

Dfs 72%



Come migliorare i risultati

...il ruolo del chirurgo

Neoadjuvant therapy

1-

SELEZIONE

2-

TECNICA

Adjuvant therapy

2 - TECNICA - Requisiti oncologici

-Linfoadenectomia

linfonodi origine AMI

-Gestione T4

resezione en bloc degli organi infiltrati

-Perforazione

peggior prognosi, >> recidive locali

2 - TECNICA - Requisiti oncologici

Escissione totale del mesoretto

THE LANCET

The Lancet, [Volume 327, Issue 8496](#), Pages 1479 - 1482, 28 June 1986
[doi:10.1016/S0140-6736\(86\)91510-2](#)

RECURRENCE AND SURVIVAL AFTER TOTAL MESORECTAL EXCISION FOR RECTAL CANCER

[R.J Heald](#) , [R.D.H Ryall](#)

Rectal Cancer

The Basingstoke Experience of Total Mesorectal Excision, 1978-1997

*Richard J. Heald, MChir, FRCS; Brendan J. Moran, MCh, FRCS; Roger D. H. Ryall, FRCR;
Rosemary Sexton, BSc; John K. MacFarlane, MD*

Objective: To examine the role of total mesorectal excision in the management of rectal cancer.

Design: A prospective consecutive case series.

Setting: A district hospital and referral center in Basingstoke, England.

Patients: Five hundred nineteen surgical patients with adenocarcinoma of the rectum treated for cure or palliation.

Interventions: Anterior resections (n = 465) with low stapled anastomoses (407 total mesorectal excisions), abdominoperineal resections (n = 37), Hartmann resections (n = 10), local excisions (n = 4), and laparotomy only (n = 3). Preoperative radiotherapy was used in 49 patients (7 with abdominoperineal resections, 38 with anterior resections, 3 with Hartmann resections, and 1 with laparotomy).

Main Outcome Measures: Local recurrence and cancer-specific survival.

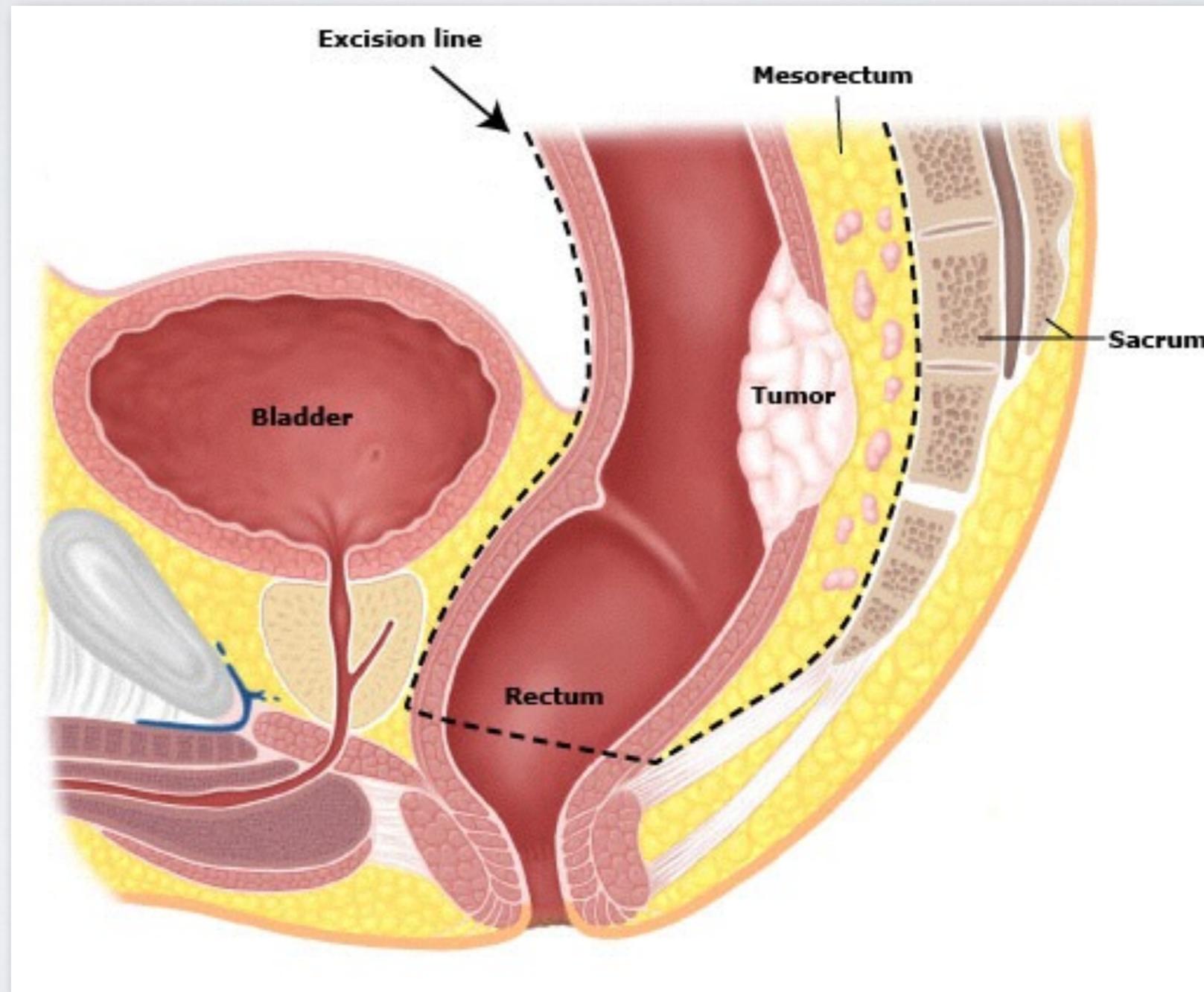
Results: Cancer-specific survival of all surgically treated patients was 68% at 5 years and 66% at 10 years. The local recurrence rate was 6% (95% confidence interval, 2%-10%) at 5 years and 8% (95% confidence interval, 2%-14%) at 10 years. In 405 "curative" resections, the local recurrence rate was 3% (95% confidence interval, 0%-5%) at 5 years and 4% (95% confidence interval, 0%-8%) at 10 years. Disease-free survival in this group was 80% at 5 years and 78% at 10 years. An analysis of histopathological risk factors for recurrence indicates only the Dukes stage, extramural vascular invasion, and tumor differentiation as variables in these results.

Conclusions: Rectal cancer can be cured by surgical therapy alone in 2 of 3 patients undergoing surgical excision in all stages and in 4 of 5 patients having curative resections. In future clinical trials of adjuvant chemotherapy and radiotherapy, strategies should incorporate total mesorectal excision as the surgical procedure of choice.

Arch Surg. 1998;133:894-899

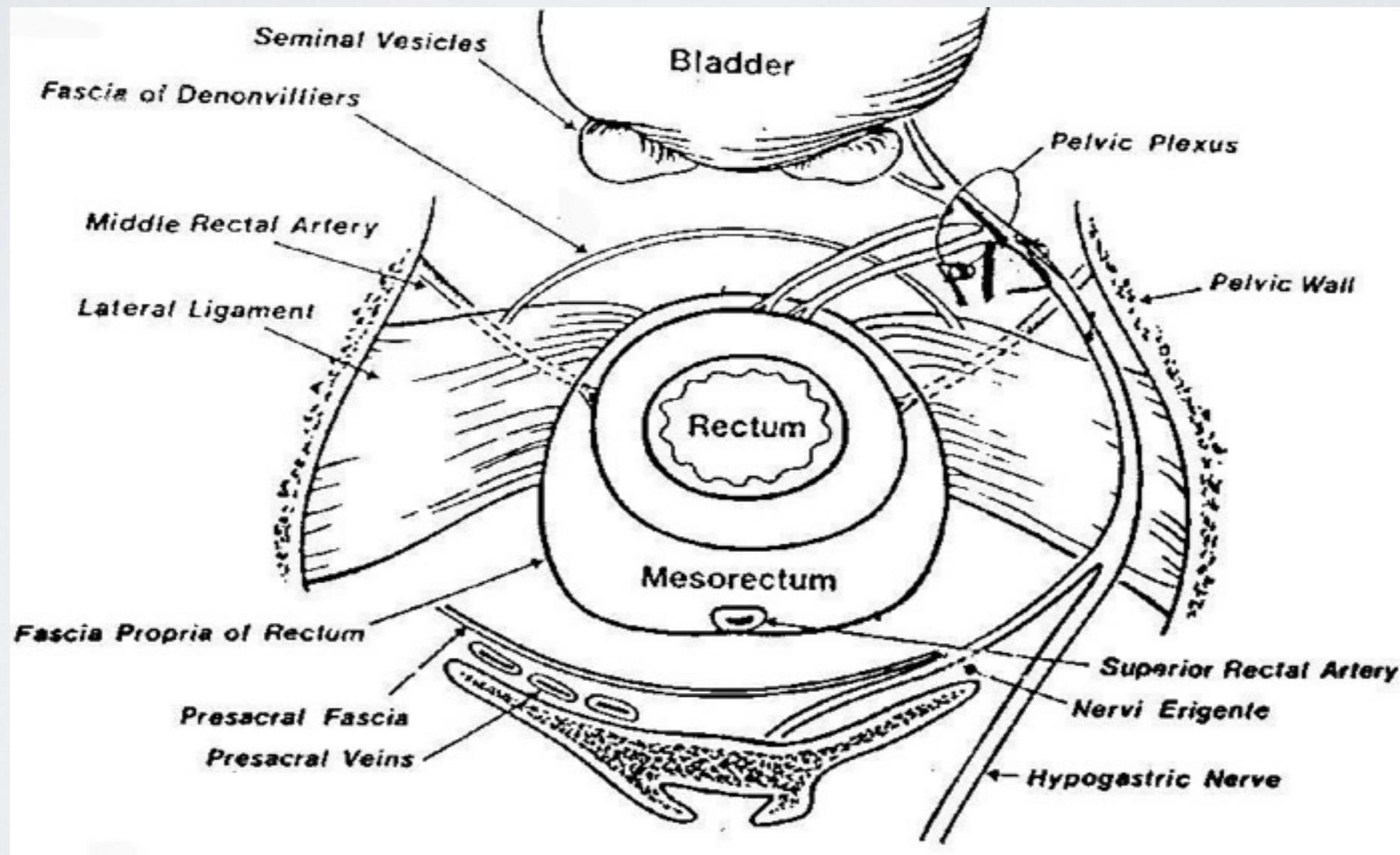
2 - TECNICA - Requisiti oncologici

Escissione totale del mesoretto



2 - TECNICA - Requisiti oncologici

Escissione totale del mesoretto

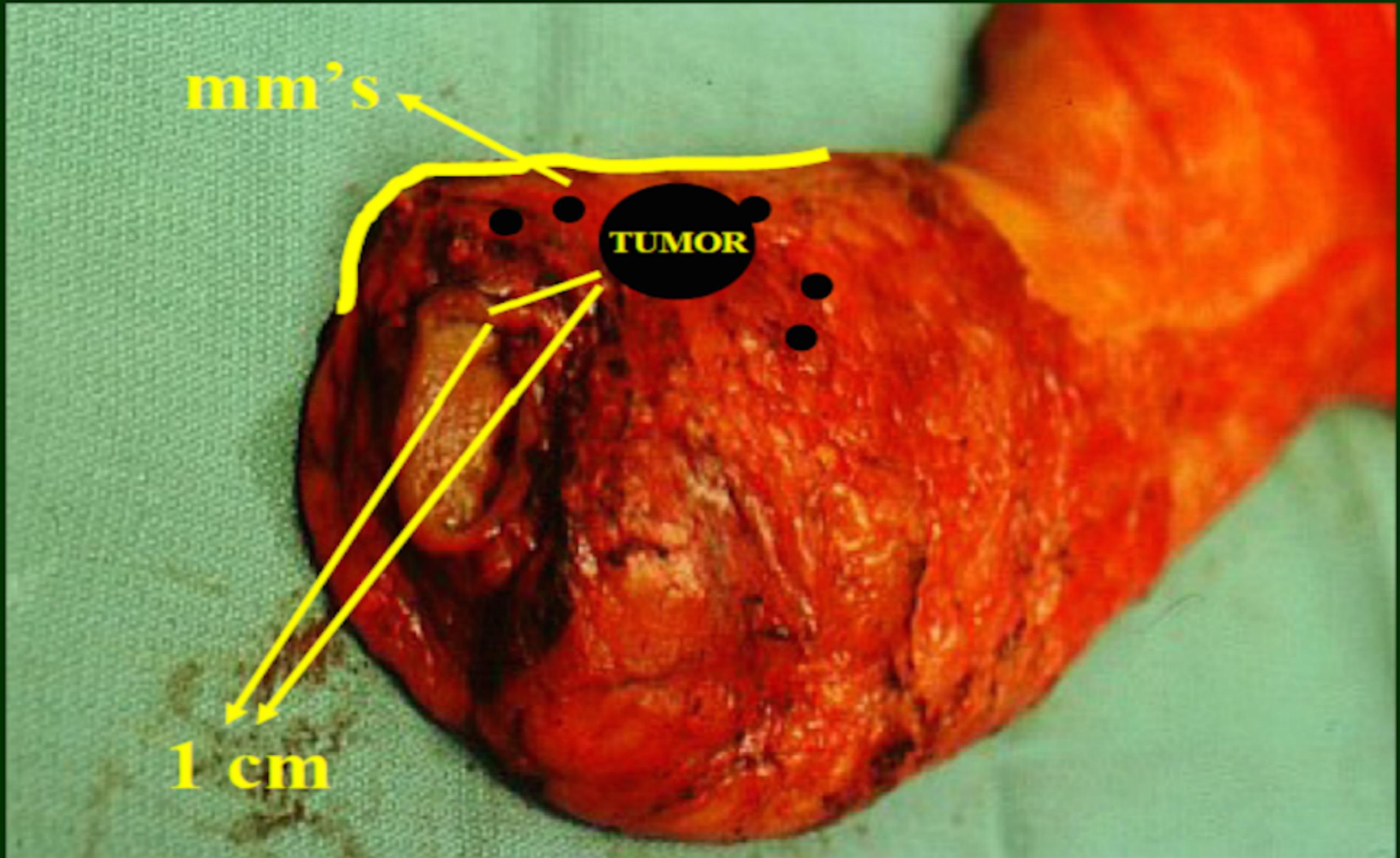


2 - TECNICA - Requisiti oncologici

- Margini di resezione prossimale e distale
 - > 2cm
 - > 0.5 cm margine distale nei CRT ev estemporaneo

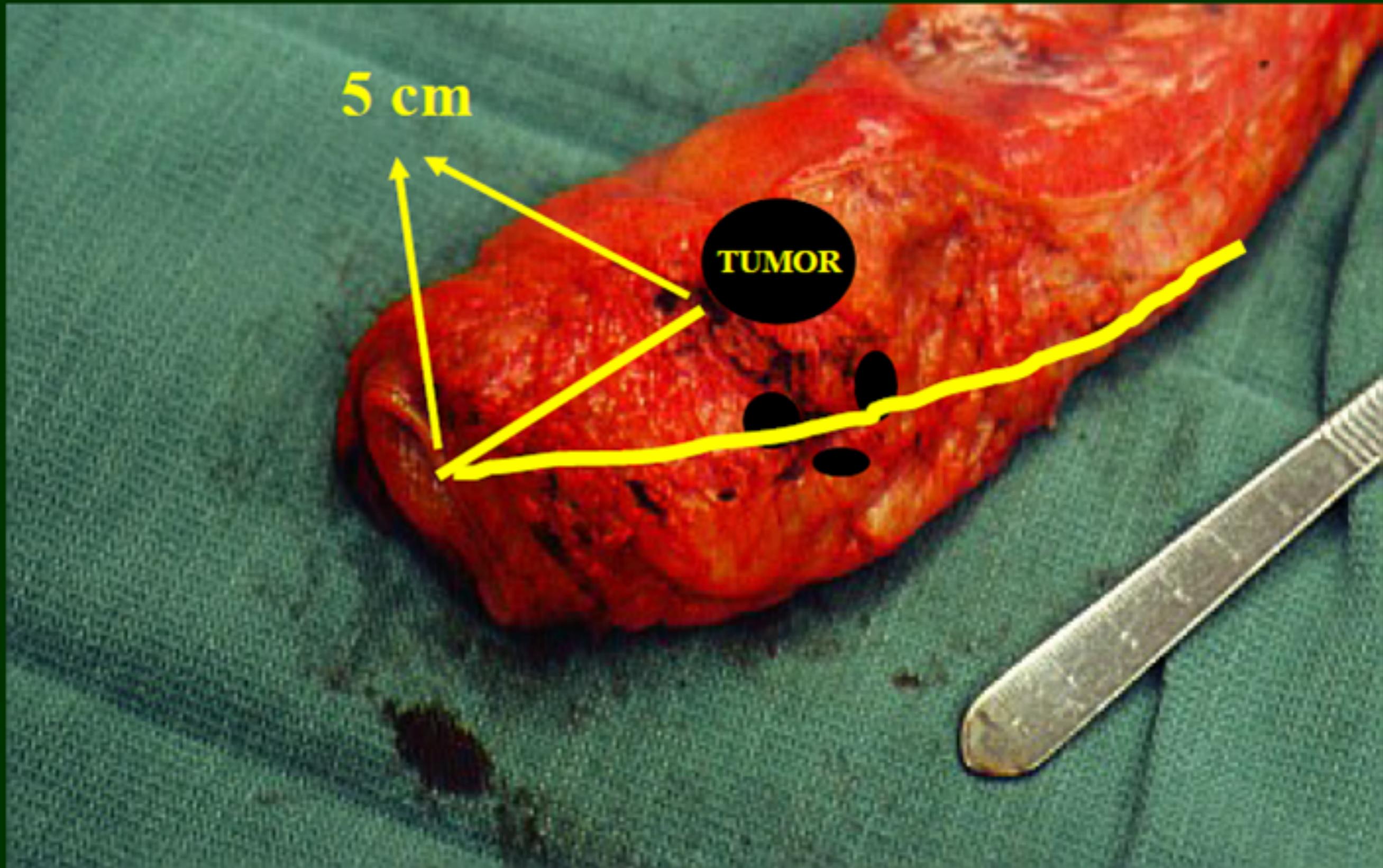
- Margine resezione circonferenziale
 - > 1mm distanza tra neoplasia e fascia mesorettale

This is how local recurrence is avoided, even with a narrow distal margin.



Distal margin and deep margin are adequate!

This is how local recurrence happens.



Distal margin is adequate: deep margin is not!

2 - TECNICA

...un pò di storia

1908	Miles	Amputazione A.P.
1948	Dixon	Resezione anteriore bassa
1978	Heald	Total Mesorectal Excision
1980	Knight-Griffen	1° anastomosi meccanica T.A.

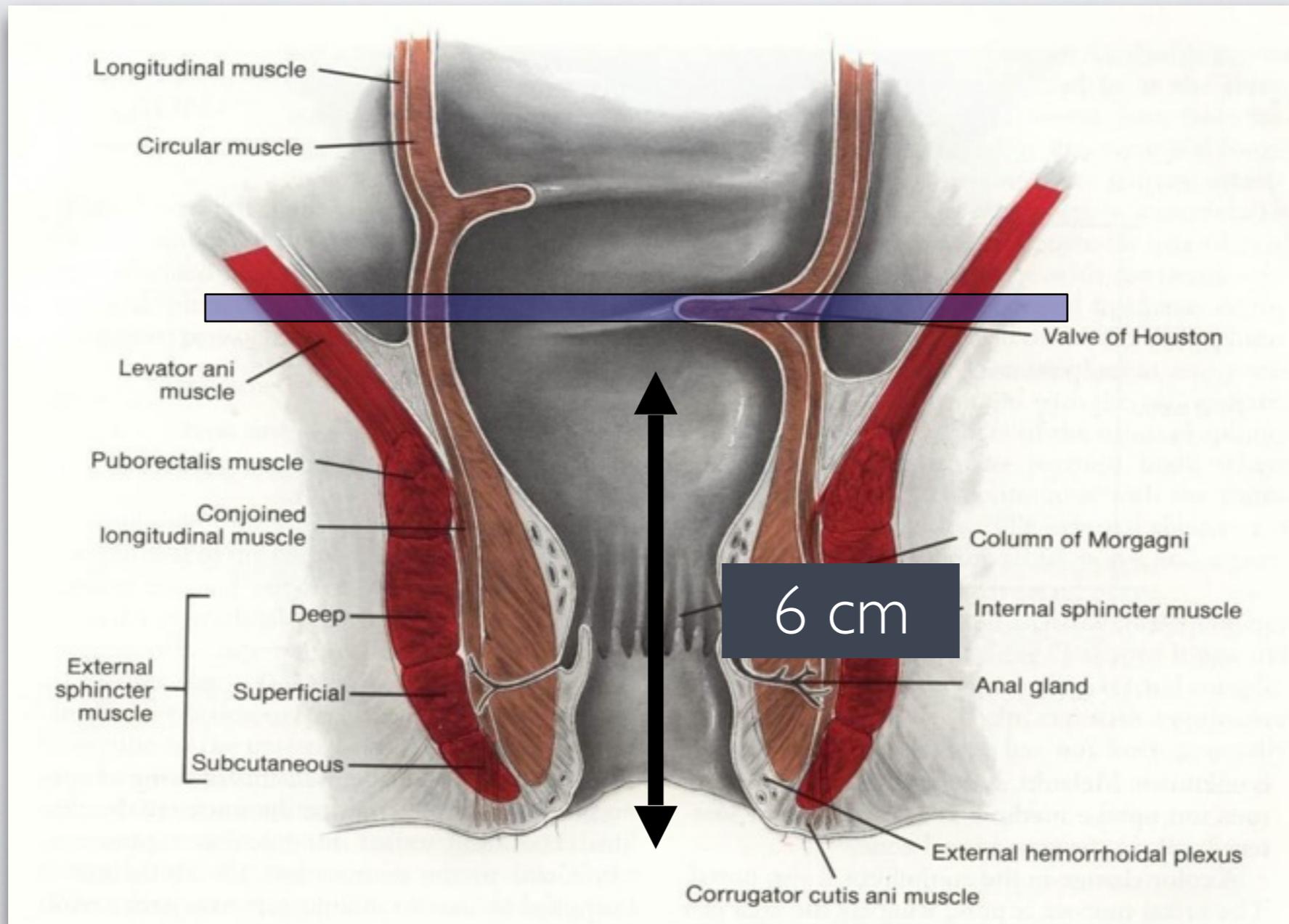
2 - TECNICA

demolizione

- Resezione Anteriore Bassa
- Resezione Intersfinterica
- Amputazione Addominoperineale

Resezione anteriore bassa

livello del piano degli elevatori preservando
l'apparato sfinteriale



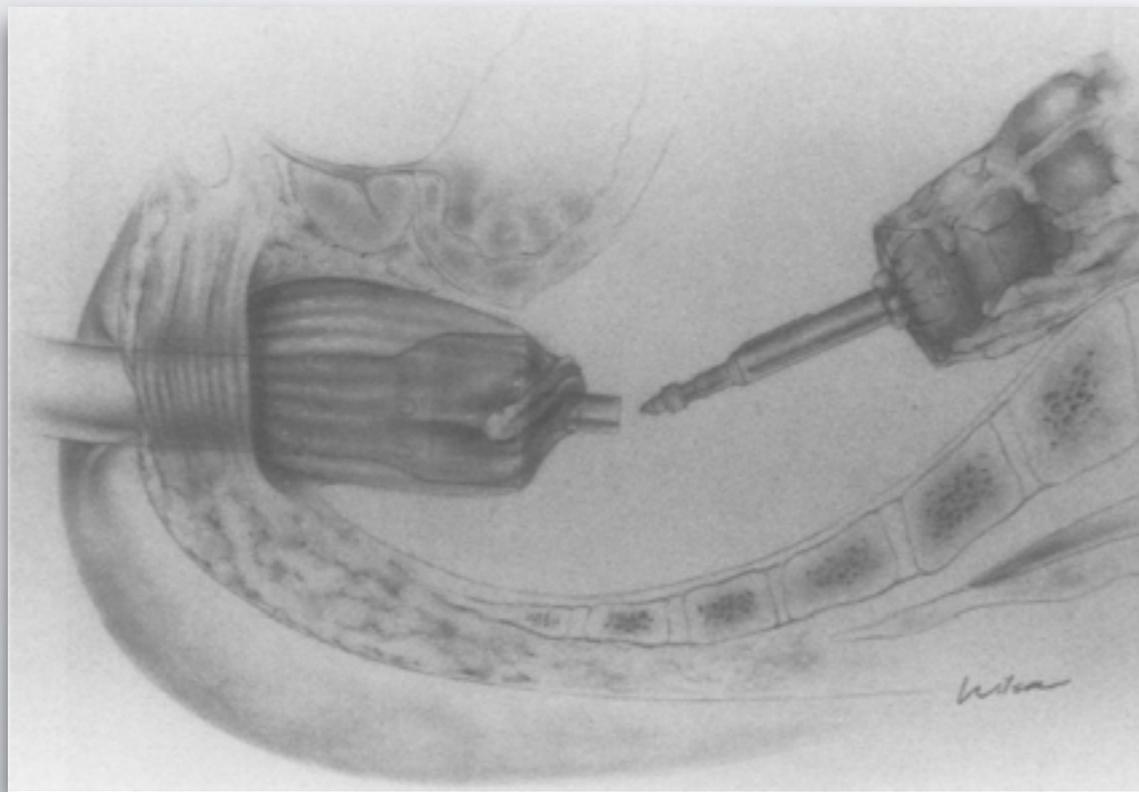
Resezione anteriore bassa

Ricostruzione Knight-Griffen

Rende più agevole e rapida l'anastomosi bassa e ultrabassa

Non apre il moncone rettale

Permette l'anastomosi tra segmenti di calibro diverso



Fistola: 2.7-13%

Stenosi: 2.7-6.7%

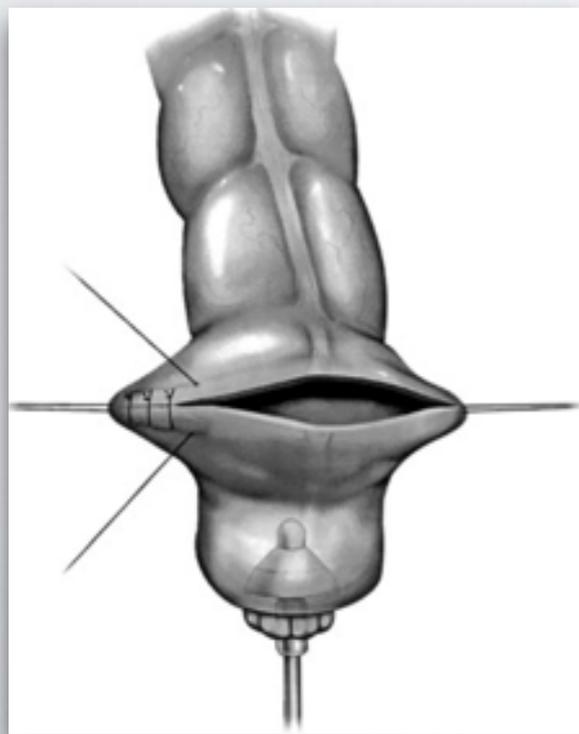
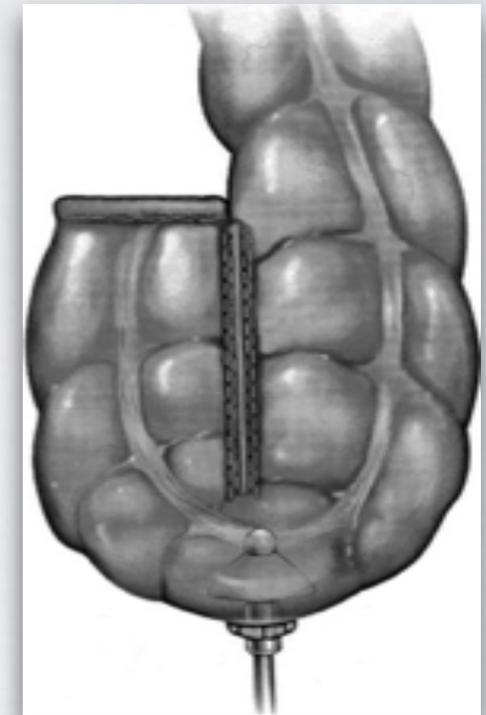
DIFETTI:

“anterior resection syndrome”:
urgence, frequenti evacuazioni,
incompleto svuotamento

Resezione anteriore bassa

Ricostruzione con Neoampolla

- Latero – terminale (side to end)
- J Pouch colica
- Coloplastica trasversale



MAGGIORE COMPLESSITA'
BENEFICIO FUNZIONALE
SOLO NEI PRIMI 12 MESI

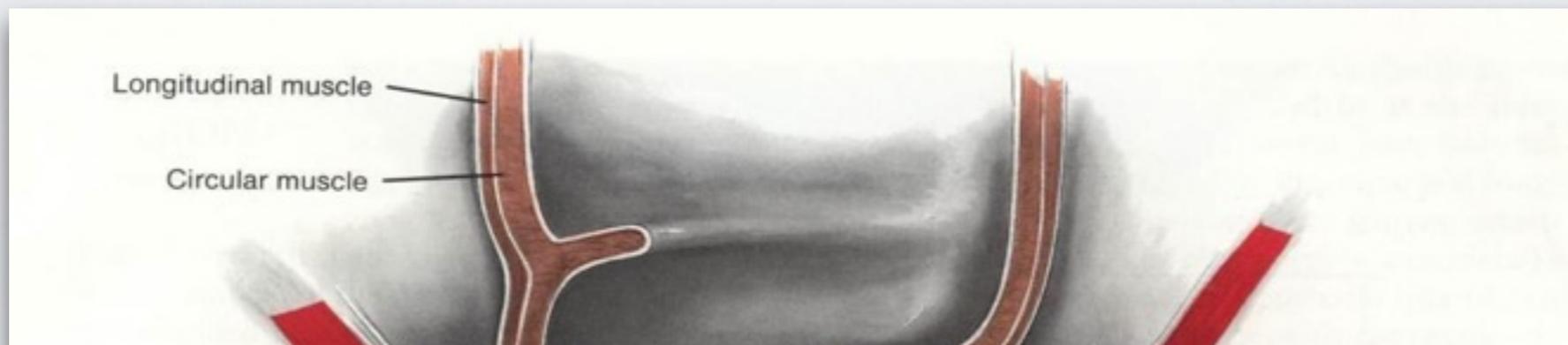
Resezione anteriore bassa

Hartmann

- Demolizione senza ricostruzione
- Non infiltrazione sfinteriale in paziente che deve guarire in poco tempo e con malattia avanzata (M+)
- Non infiltrazione sfinteriale in pazienti in scadenti condizioni generali che non tollererebbero complicanze sull'anastomosi

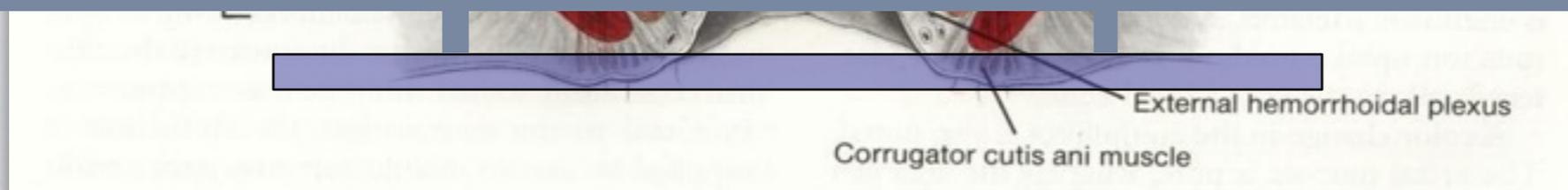
Amputazione addomino-perineale

Asportazione retto mesoretto ano ed apparato sfinteriale
Stoma definitivo



Indicazioni assolute

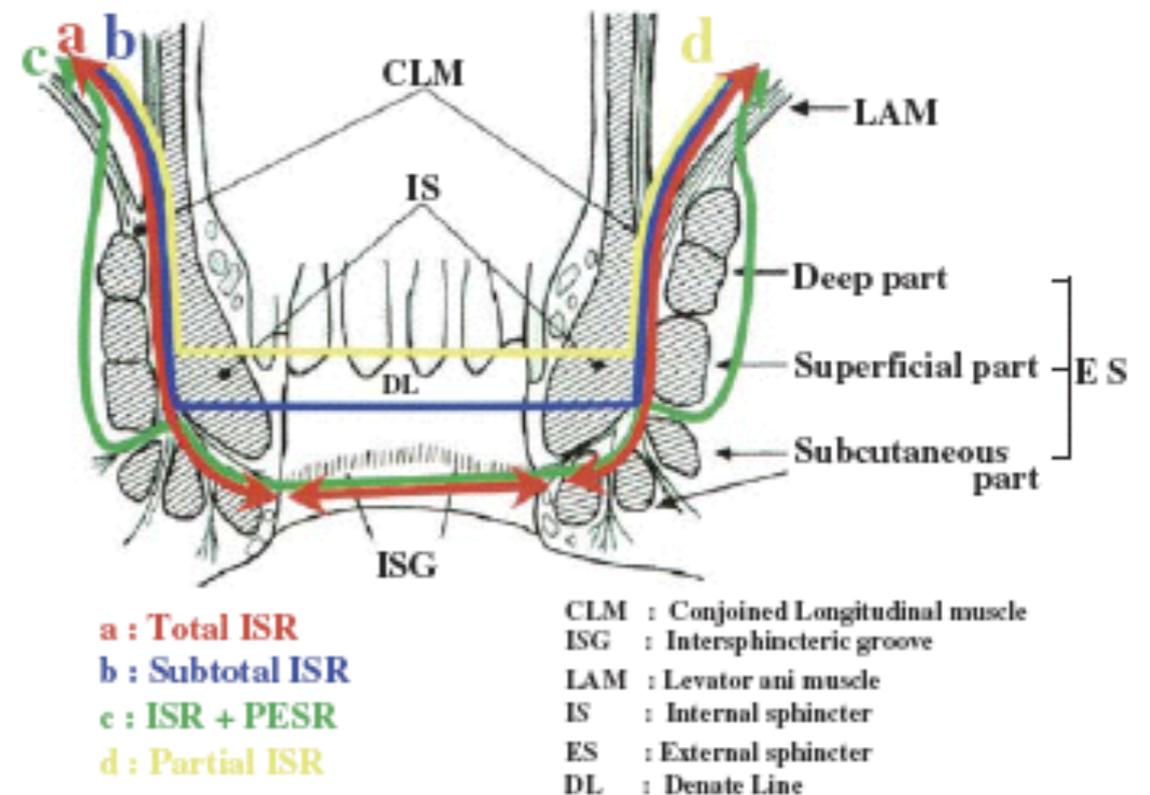
- infiltrazione degli elevatori T3-T4
- infiltrazione sfintere esterno T3-T4
- infiltrazione grasso fossa ischio-rettale T3 (?)



Resezione intersfinterica

Sotto al piano degli elevatori preservando parzialmente l'apparato sfinteriale

- **Tumor location** lower rectum and anal canal
- **Local spread** restricted to the rectal wall or internal sphincter
- **Grading** G1 – II
- **Sphincter function**
- **Consenso dettagliato**



Type of ISR	Anastomotic line	Sacrificed sphincter
Partial	Just on DL or within 1cm oral side from DL	Partial IS
Subtotal	Between DL and ISG	Almost all of IS
Total	Just on ISG	Total IS without or with partial ES

Resezione intersfinterica

anastomosi

- Coloano anastomosi manuale
- Pull through

Diseases of the
Colon & Rectum

Technique and Long-Term Results of Intersphincteric Resection for Low Rectal Cancer

Rudolf Schiessel, M.D.,^{1,2} Gabriele Novi, M.D.,¹ Brigitte Holzer, M.D.,^{1,2}
Harald R. Rosen, M.D.,^{1,2} Karl Renner, M.D.,¹ Nikolaus Hölbling, M.D.,¹
Wolfgang Feil, M.D.,³ Michael Urban, M.D.⁴

¹ Department of Surgery, Danube Hospital/SMZ-Ost, Vienna, Austria

² Ludwig Boltzmann Research Institute for Surgical Oncology, Danube Hospital/SMZ-Ost, Vienna, Austria

³ Department of Surgery, Evangelic Hospital, Vienna, Austria

⁴ Department of Radiology, Danube Hospital/SMZ-Ost, Vienna, Austria

- Anticipando il tempo perineale al tempo addominale laparoscopico.
Semplificazione- riduzione dei tempi della TME: migliore trazione verso l'alto del moncone rettale già mobilizzato
- Estrazione del pezzo per via transanale senza necessità del Pfannestiel

RAB vs ISR

risvolti funzionali

Sphincter-Saving Resection for All Rectal Carcinomas

The End of the 2-cm Distal Rule

Eric Rullier, MD, Christophe Laurent, MD,* Frédéric Bretagnol, MD,* Anne Rullier, MD,†*
Annals of Surgery • Volume 241, Number 3, March 2005

However, in our opinion, the technique of ISR is justified because recent improvement in surgical management of fecal incontinence permits us to treat patients after surgical injury.²⁹

	Anterior resection	Low anterior resection	Intersphincteric resection		Low	
Never	17 (77%)	35 (49%)	17 (21%)			
Rarely	2 (9%)	9 (13%)	2 (7%)			
Sometimes	1 (5%)	13 (18%)	6 (21%)			
Usually	2 (9%)	11 (15%)	10 (36%)			
Always						
Incontinence – gas						
Never						0.030
Rarely						
Sometimes						
Usually						
Always						
Wearing pads						
Never						ns
Rarely						
Sometimes						
Usually						
Always						
Lifestyle alterations						
Never						ns
Rarely						
Sometimes						
Usually						
Always	7 (32%)	19 (26%)	11 (39%)			
Lifestyle alterations				<0.0001		
Never	12 (55%)	23 (32%)	2 (7%)			
Rarely	3 (14%)	5 (7%)	3 (11%)			
Sometimes	–	11 (15%)	1 (4%)			
Usually	6 (27%)	19 (26%)	11 (39%)			
Always	1 (5%)	14 (19%)	11 (39%)			
Warning period						
None	0	8 (11%)	6 (21%)			
Reduced	14 (36%)	20 (28%)	12 (43%)			
Patient satisfaction						
None	2 (9%)	12 (17%)	5 (18%)			
Partial	2 (9%)	12 (17%)	3 (11%)			
Total	18 (82%)	48 (67%)	20 (71%)			

K. E. Matzel et al.

In conclusione

- La chirurgia del retto extraperitoneale è ad alta complessità
- La strategia terapeutica non può prescindere dalla qualità di vita

Grazie per l'attenzione

grazie per l'attenzione