USE PAAF EN CANCER DE RECTO

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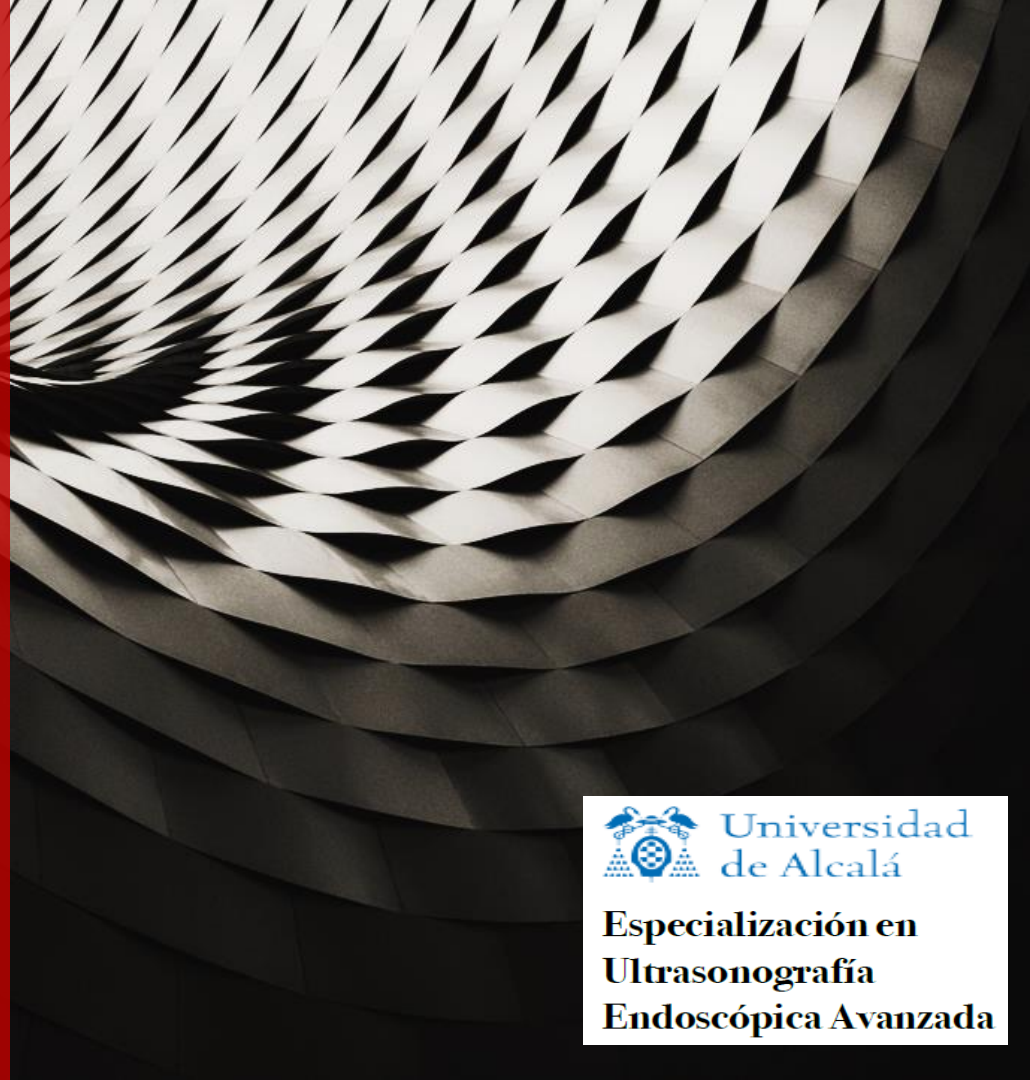


Universidad de Alcalá

Especialización en Ultrasonografía Endoscópica Avanzada

USE PAAF EN CANCER DE RECTO

Diagnostico – **ESTADIAJE**

Tras neoadyuvancia – **RE-ESTADIAJE**

Seguimiento - **RECIDIVA**

USE PAAF EN CANCER DE RECTO

DIAGNOSTICO

ESTADIAJE

Valor estadiaje preoperatorio

Seleccion de pacientes

TTO MULTIMODAL PREOPERATORIO

Maximo beneficio

ENFERMEDAD LOCORREGIONAL AVANZADA

NEOADYUVANCIA + QX

Mejor control y toxicidad reducida vs Adyuvancia

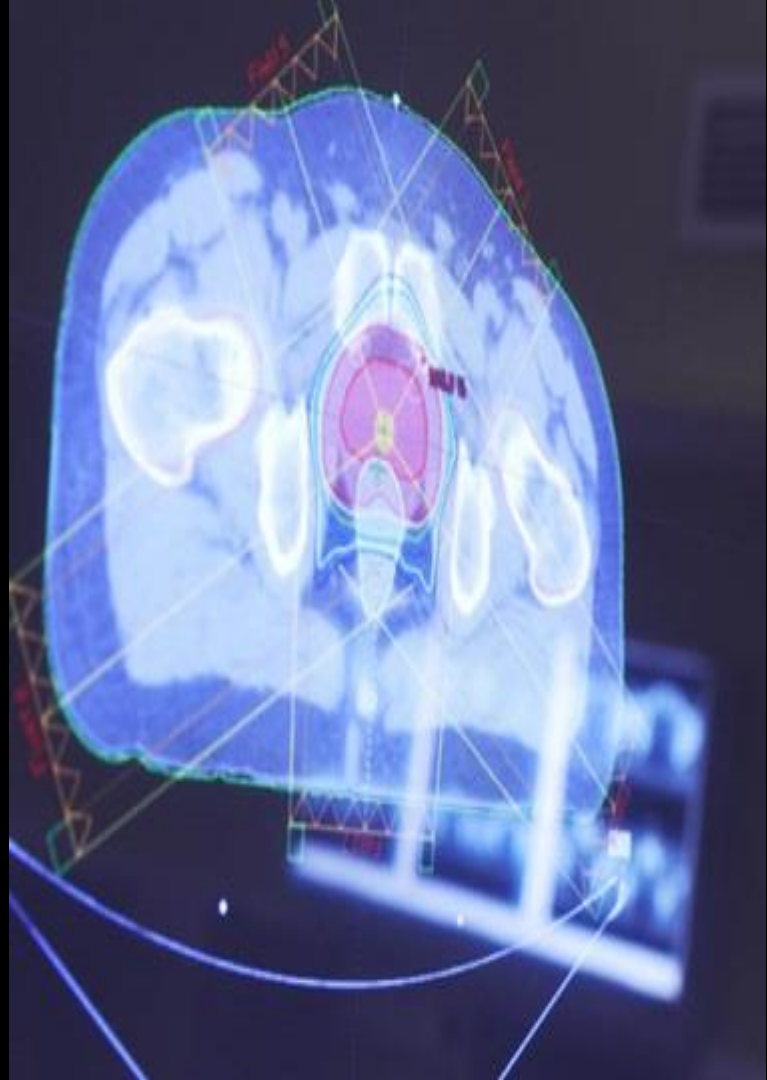
NEOADYUVANCIA

T3-T4, N0 (Hasta 20% N+)

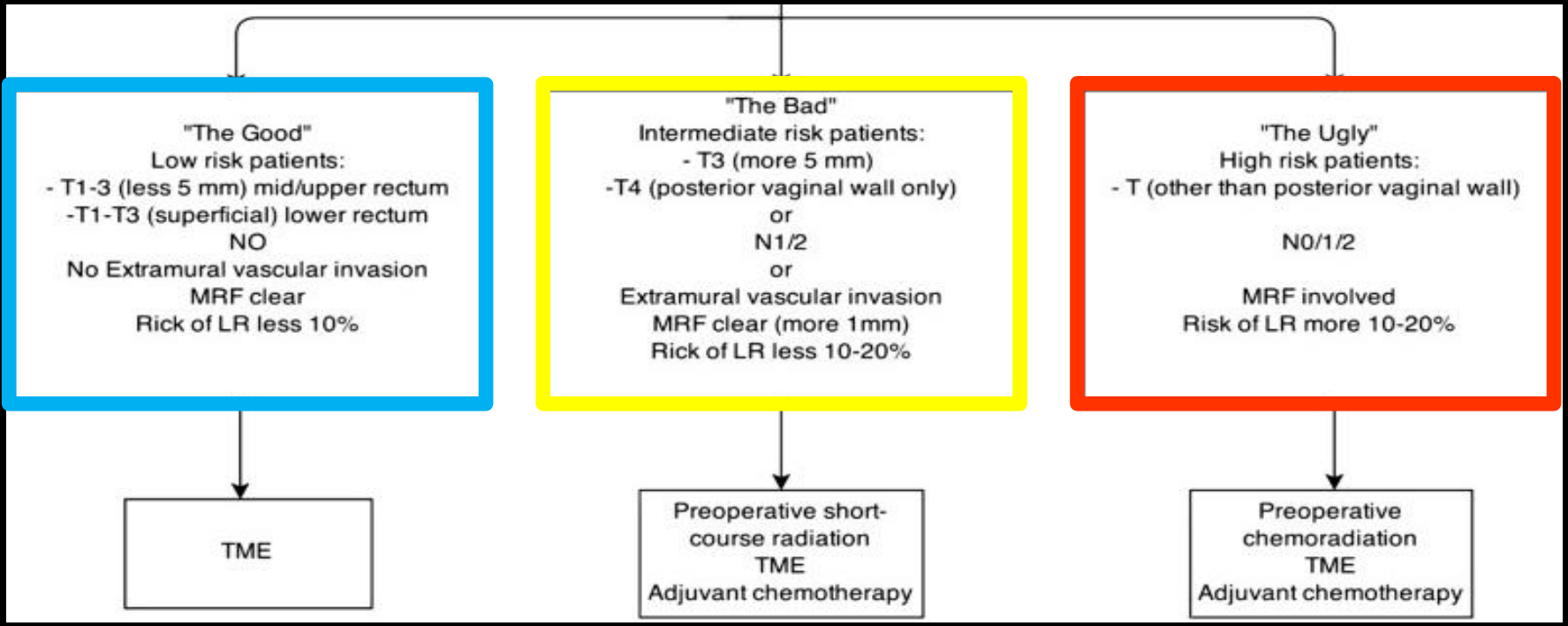
T3,N0 alto riesgo (>5 mm invasion)

T1/2, N1 o mal pronostico

Invasión de fascia mesorrectal



CA RECTO Europa



Ferrari, Fichera. Gastroent Rep 2015

FACTORES PRONOSTICOS

INFILTRACIÓN EN PROFUNDIDAD “T”

INVASIÓN LINFÁTICA “N”

MARGEN DE
RESECCIÓN CIRCUNFERENCIAL

“DOWNSTAGING”
TRAS NEOADYUVANCIA

INFILTRACION VASCULAR EXTRAMURAL

USE PAAF EN CANCER DE RECTO

ESTADIAJE T

ESTADIAJE LOCORREGIONAL

This
— or —
That

UICC / AJCC 8th edition

T CATEGORY	T CRITERIA
TX	Primary tumor cannot be assessed
T0	No evidence of primary tumor
Tis	Carcinoma in situ, intramucosal carcinoma (involvement of lamina propria with no extension through muscularis mucosae)
T1	Tumor invades the submucosa (through the MM but not into the MP)
T2	Tumor invades the muscularis propria
T3	Tumor invades through the muscularis propria into pericolorectal tissues
T4	Tumor invades* the visceral peritoneum or invades or adheres to adjacent organ or structure
T4a	Visceral peritoneum
T4b	Tumor directly invades* or adheres to adjacent organs or structure

EUS accuracy in T staging

How Good is Endoscopic Ultrasound in Differentiating Various T Stages of Rectal Cancer? Meta-Analysis and Systematic Review

Srinivas R. Puli[1,2], Matthew L. Bechtold[1], Jyotsna B. K. Reddy[1], Abhishek Choudhary[1], Mainor R. Antillon[1], and William R. Brugge[3]

	Pooled sensitivity	Pooled specificity	Pooled LR+	Pooled LR–	Pooled DOR
T1	87.8% (85.3–90.0%)	98.3% (97.8–98.7%)	44.0 (22.7–85.5)	0.16 (0.13–0.23)	333.9 (161.4–690.4)
T2	80.5% (77.9–82.9%)	95.6% (94.9–96.3%)	17.3 (11.9–24.9)	0.22 (0.17–0.29)	92.1 (64.2–132.2)
T3	96.4% (95.4–97.2%)	90.6% (89.5–91.7%)	8.9 (6.8–11.8)	0.06 (0.04–0.09)	204.9 (124.9–336.6)
T4	95.4% (92.4 –97.5%)	98.3% (97.8–98.7%)	37.6 (19.9–71.0)	0.14 (0.09–0.23)	367.6 (170.9–790.6)

LR+, positive likelihood ratio; LR–, negative likelihood ratio; *DOR*, diagnostic odds ratio

42 estudios (n=5,039) vs histologia quirúrgica

Puli et al. Ann Surg Oncol

EUS vs MRI & CT

Systematic Review and Meta-Analysis

Medicine

OPEN

Evaluating rectal tumor staging with magnetic resonance imaging, computed tomography, and endoluminal ultrasound

A meta-analysis

Xiao-Ting Li, MPH, Xiao-Yan Zhang, PhD, Ying-Shi Sun, MD*, Lei Tang, MD, Kun Cao, MD

Lee, Medicine (Baltimore) 2016

Imaging modality	Sensitivity (95% CI)	Specificity (95% CI)
MRI	0.89 (0.86, 0.91)	0.76 (0.71, 0.80)
EUS	0.88 (0.85, 0.90)	0.79 (0.72, 0.84)
CT	0.89 (0.77, 0.95)	0.80 (0.72, 0.86)

"MRI, CT, and EUS have comparable accuracy for rectal tumor staging

High-resolution MRI and 3.0-T MRI can produce better staging results (T2 vs T3) and were recommended.

EUS T0-T1

Can Endoscopic Ultrasound Predict Early Rectal Cancers That Can Be Resected Endoscopically? A Meta-Analysis and Systematic Review

Srinivas R. Puli · Matthew L. Bechtold · Jyotsna B. K. Reddy · Abhishek Choudhary · Mainor R. Antillon

Table 2 Affect of EUS technology to diagnose T0 stage of rectal cancers

	Year	No. of studies	Pooled sensitivity	Pooled specificity	Pooled LR+	Pooled LR−	Pooled DOR
T0	1994–1999	6	96.3% (91.6–98.8)	95.3% (92.4–97.3)	16.3 (9.4–28.3)	0.08 (0.03–0.21)	279.1 (84.0–926.9)
	2000–2006	5	100.0% (92.6–100.0)	96.6% (95.5–97.5)	25.9 (18.9–35.6)	0.07 (0.02–0.23)	540.3 (131.3–2,223.7)

Puli et al. Dig Dig Sci 2010

EUS versus magnetic resonance imaging in staging rectal adenocarcinoma: a diagnostic test accuracy meta-analysis

Brian P. H. Chan, MD,[1] Raxitkumar Patel, MD,[1] Lawrence Mbuagbaw, MD, MPH, PhD,[2] Lehana Thabane, MSc, PhD,[2] Mohammad Yaghoobi, MD, MSc, AFS, DBIM, FRCPC, FACG[1,3]

Hamilton, Ontario, Canada

6 ESTUDIOS
234 PACIENTES

VS ANATOMIA QX

RMN solo mejor en T2

TABLE 2. Area under the curve for EUS and MRI in overall and individual T and N staging for all studies and adjusted for technology

		All studies			Studies using MRI endorectal coil excluded		
	Stage	EUS	MRI	*P* value	EUS	MRI	*P* value
T staging	Overall	.87	.82	<.01	.88	.82	<.01
	1	.93	.77	.06	1.00	.96	<.01
	2	.82	.92	<.01	.83	.94	.01
	3	.94	.83	<.01	.96	.84	<.01
	4	.76	.72	.46	.76	.72	.48
N staging	Overall	.90	.86	.11	.92	.85	<.01
	0	.95	.91	.32	.95	.91	.32
	1/2	.92	.93	.71	.95	.89	.07

MRI, Magnetic resonance imaging.

Chan et al. GIE 2019

Sin embargo....

SUBCLASIFICACION T3

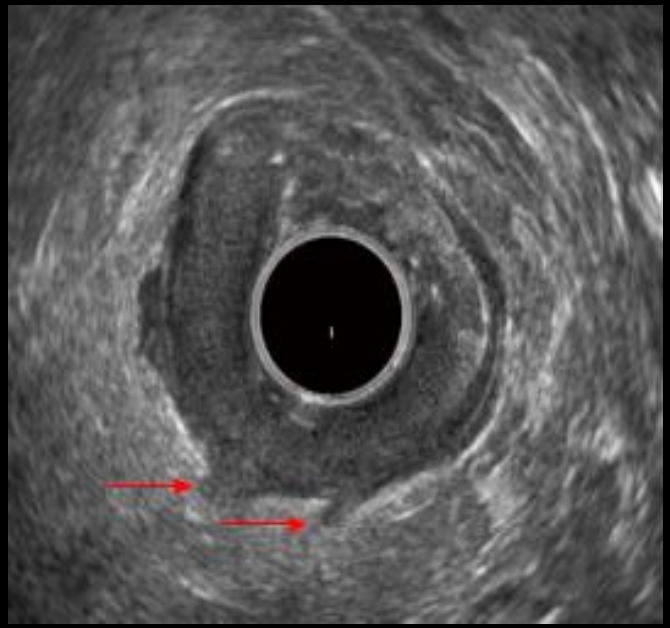


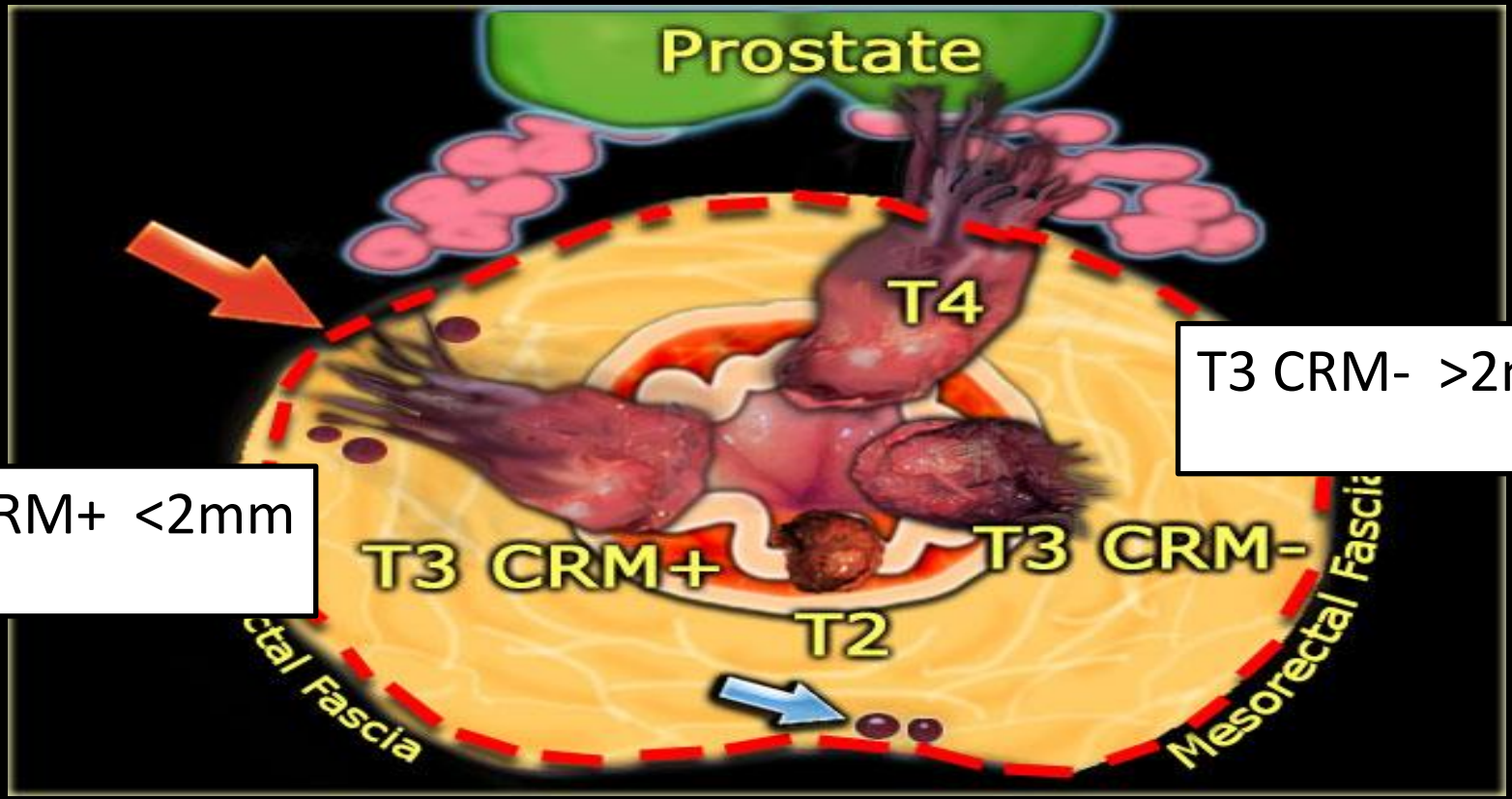
Table 3. Subdassification of T3 rectal cancer [18]

	Depth of invasion beyond the muscularis propria (in mm)
T3a[a]	< 1
T3b	1–5
T3c	6–15
T3d	> 15

[a]This sub-classification based upon an evaluation using MRI before treatment decision is clinically valuable, and is 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).

Rectal cancer: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. Annals of Oncology 2017

MARGEN RESECCION CIRCUNFERENCIAL



T3 CRM- >2mm

T3 CRM+ <2mm

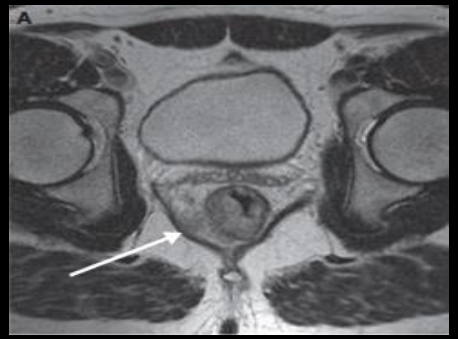
MARGEN RESECCION CIRCUNFERENCIAL

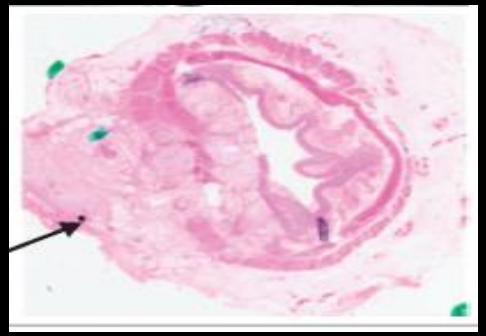
VOLUME 32 · NUMBER 1 · JANUARY 1 2014

JOURNAL OF CLINICAL ONCOLOGY

Preoperative Magnetic Resonance Imaging Assessment of Circumferential Resection Margin Predicts Disease-Free Survival and Local Recurrence: 5-Year Follow-Up Results of the MERCURY Study

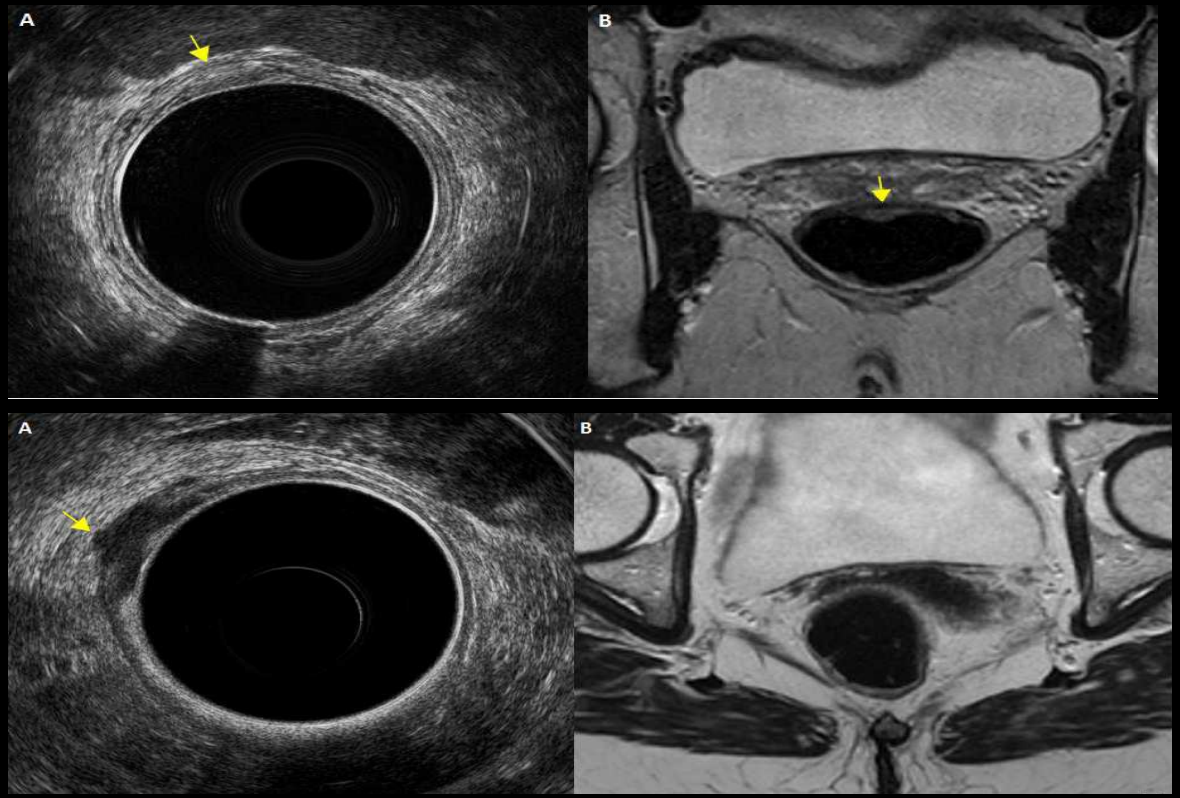
Fiona G.M. Taylor, Philip Quirke, Richard J. Heald, Brendan J. Moran, Lennart Blomqvist, Ian R. Swift, David Sebag-Montefiore, Paris Tekkis, and Gina Brown





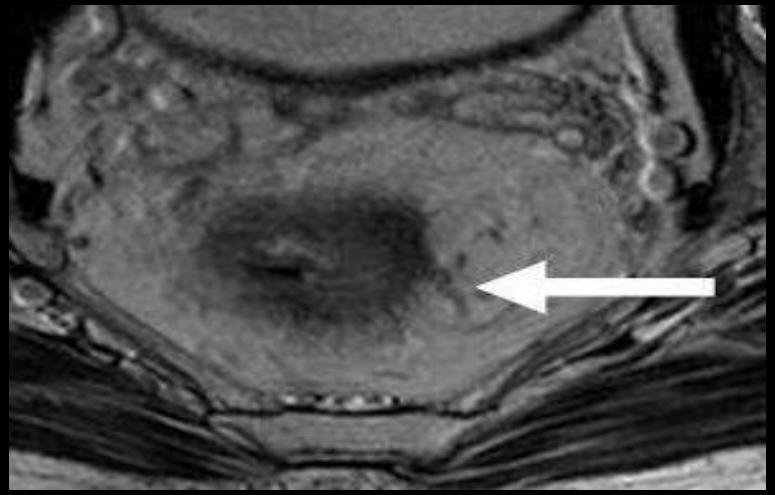
"CRM is an ***independent*** *prognostic factor for 5-year* ***overall survival****,* ***disease-free*** *survival and for* ***local recurrence****"*

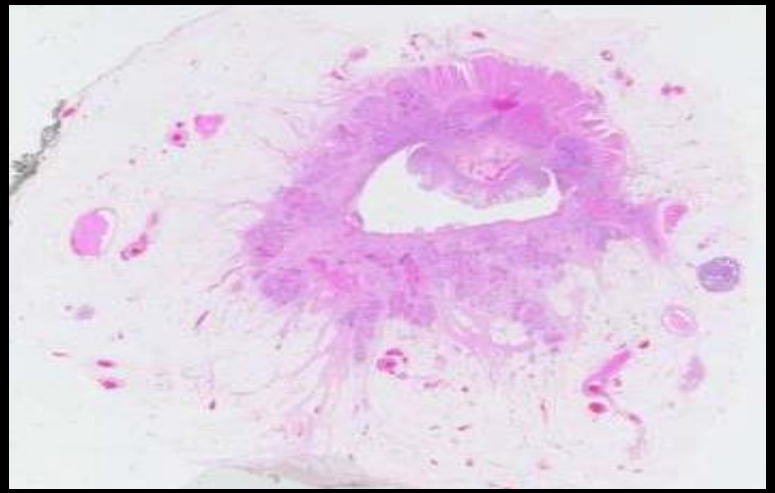
MARGEN RESECCIÓN CIRCUNFERENCIAL



USE
solo valida en
tumores
anteriores
medios y bajos

Tsai et al. The American Journal of Surgery 2017





INVASION VASCULAR EXTRAMURAL

Tumor en endotelio de los vasos mas allá de la muscular propia

Factor de riesgo independiente
Recurrencia local & distancia,
Extension ganglionar
Supervivencia

Siddiqui Br J Cancer. 2017

Experiencia operador

Original article

Endorectal ultrasound in rectal carcinoma – do the literature results really correspond to the realities of routine clinical care?

Marusch et al. Endoscopy 2011

Hospital volume, [illegible]year	uT–pT correspondence, %	Kappa, κ ± SE	Understaging, %	Overstaging, %
1 – 10	63.3	0.429 ± 0.013	17.3	19.4
11 – 30	64.6	0.444 ± 0.013	19.5	16.0
> 30	73.1	0.555 ± 0.029	13.5	13.3

Table 3 Sensitivity by uT category and hospital volume.

Tumor stage	Sensitivity, %		
	1 – 10 EUS/year	11 – 30 EUS/year	> 30 EUS/year
uT1	53.8	62.5	61.2
uT2	63.3	64.3	67.5
uT3	70.7	69.7	80.6
uT4	26.2	25.4	52.9

Table 4 Specificity by uT category and hospital volume.

Tumor stage	Specificity, %		
	1 – 10 EUS/year	11 – 30 EUS/year	> 30 EUS/year
uT1	96.1	[illegible]	96.4
uT2	73.1	74.0	80.0
uT3	74.9	75.6	80.1
uT4	98.2	[illegible]	99.3

>30 por año

T2 y T3

Factores asociados al pronostico

INFILTRACIÓN EN PROFUNDIDAD “T”

INVASIÓN LINFÁTICA “N”

MARGEN DE RESECCIÓN CIRCUNFERENCIAL

Próstata / seminales.

Útero / v

Fascia me

“DOWNSTAGING”

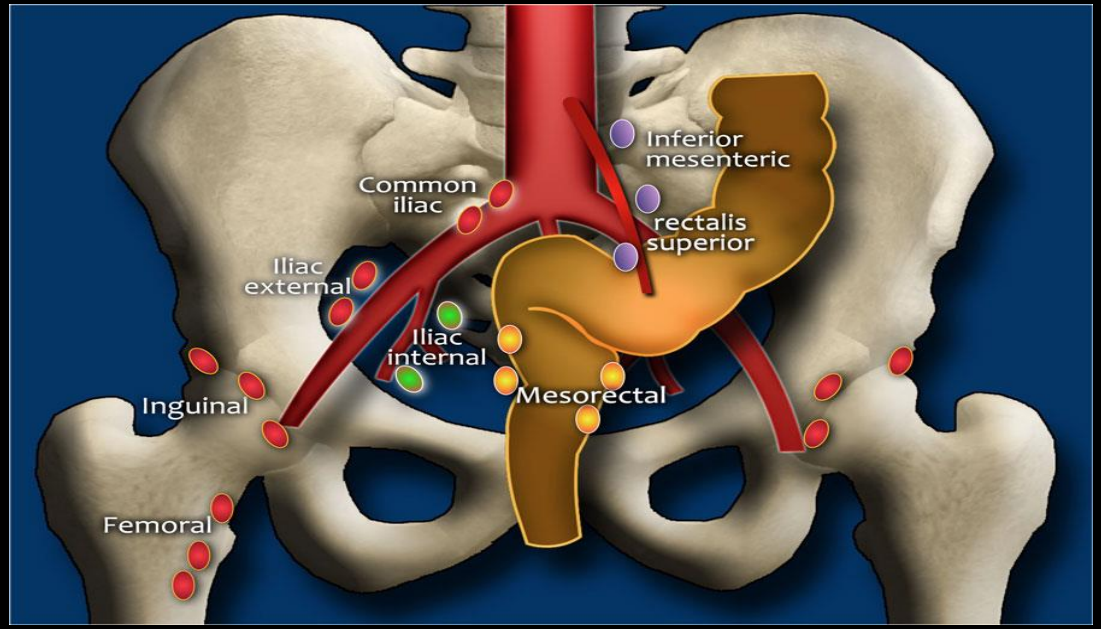
DESPUÉS DE NEOADYUVANCIA

INFILTRACION VASCULAR EXT

USE PAAF EN CANCER DE RECTO

ESTADIAJE N

ADENOPATIAS REGIONALES (AJCC 2017)



Rojo= Metastásico

Perirectal

Sigmoid mesenteric

Inferior mesenteric

Lateral sacral, presacral, sacral promontory (Gerota's),

Internal iliac

Superior middle and inferior rectal (hemorrhoidal)

Accuracy of Endoscopic Ultrasound to Diagnose Nodal Invasion by Rectal Cancers: A Meta-Analysis and Systematic Review

Srinivas R. Puli, MD[1], Jyotsna B.K. Reddy[1], Matthew L. Bechtold[1], Abhishek Choudhary[1], Mainor R. Antillon[1], and William R. Brugge[2]

Ann Surg Oncol (2009) 16:1255–1265

TABLE 1 Pooled diagnostic accuracy estimates of EUS for different time periods with 95% confidence intervals

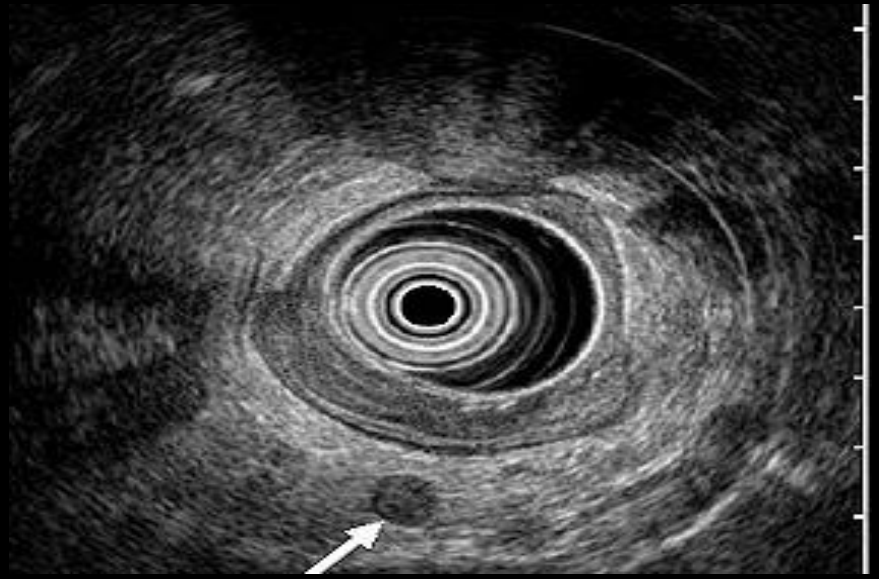
Time period	No. of studies	Pooled sensitivity	Pooled specificity	Pooled LR+	Pooled LR−	Pooled DOR
1984–1994	6	79.7% (74.0–84.6)	62.9% (55.5–69.9)	2.6 (1.2–5.7)	0.39 (0.25–0.610)	7.4 (1.9–28.1)
1995–2000	13	73.0% (67.9–77.7)	76.4% (72.6–79.9)	2.8 (2.2–3.6)	0.39 (0.28–0.57)	9.2 (6.5–13.1)
2001–2008	15	70.9% (67.3–74.3)	78.6% (75.5–81.5)	2.8 (1.8–4.2)	0.44 (0.30–0.64)	7.1 (3.6–14.1)

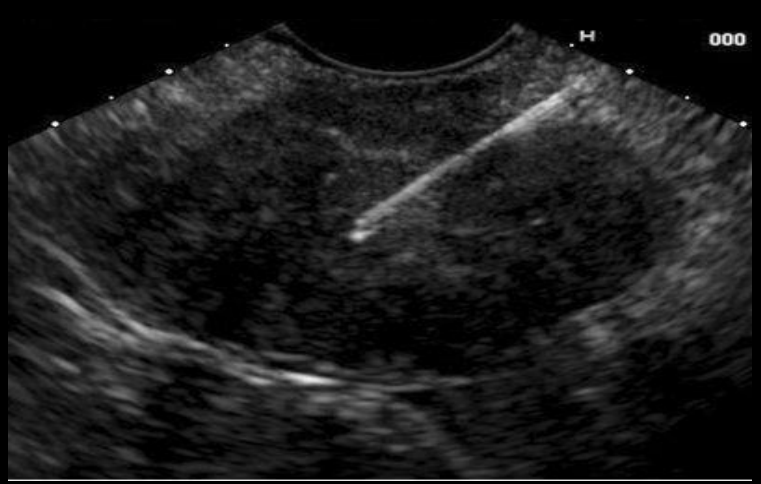
LR+ positive likelihood ratio, *LR−* negative likelihood ratio, *DOR* diagnostic odds ratio

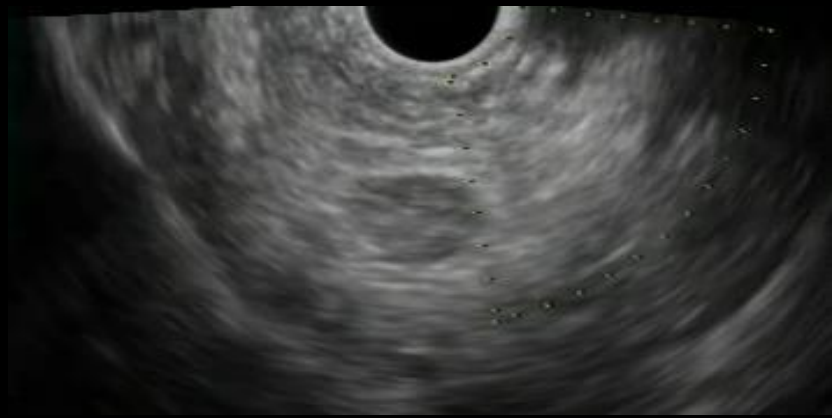
35 estudios (N = 2732)

Precision EUS 70-75%
(CT 55-65% MRI 60-65%)

"Aceptable" +LR pero bajo –LR







¿¿¿ CUALES SON PATOLÓGICAS ???

Prospective assessment of EUS criteria for lymphadenopathy associated with rectal cancer

Ferga C. Gleeson, MD, Jonathan E. Clain, MD, Georgios I. Papachristou, MD, Elizabeth Rajan, MD, Mark D. Topazian, MD, Kenneth K. Wang, MD, Michael J. Levy, MD

Rochester, Minnesota, USA

EUS MORPHOLOGIC FEATURES OF BENIGN AND MALIGNANT LYMPH NODES

EUS Features	Benign Features	Malignant Features
Echogenicity	Hyperechoic	Hypoechoic
Shape	Irregular	Round
Border	Irregular	Smooth
Size (short axis)	<10 mm	≥10 mm

76 pacientes

52 (68%) N+ (≥2 EUS ft)

46 (88%) N1 y 6 (12%) M+

43 pacientes PAAF

Gleeson et al. GIE 2009

Prospective assessment of EUS criteria for lymphadenopathy associated with rectal cancer

Ferga C. Gleeson, MD, Jonathan E. Clain, MD, Georgios I. Papachristou, MD, Elizabeth Rajan, MD, Mark D. Topazian, MD, Kenneth K. Wang, MD, Michael J. Levy, MD

Rochester, Minnesota, USA

TABLE 3. The association of the number of conventional EUS features with cytology result

No. conventional EUS LN features	LN (n)	Cytology result (n)	Cytology result (%)
1 of 4	11	M-5; B-6	M-45; B-55
2 of 4	7	M-2; B-5	M-29; B-71
3 of 4	20	M-10; B-10	M-50; B-50
4 of 4	5	M-5; B-0	M-100; B-0

M, Malignant; *B*, benign.

EUS LN feature	Benign, n = 21 (48.8%)	Malignant, n = 22 (51.2%)	*P* value
Conventional features			
Size--short axis (≥10 mm)	0	5 (23%)	.05
Hypoechoic echogenicity	13 (62%)	20 (91%)	.03
Round shape	17 (81%)	18 (82%)	.9
Smooth border	14 (66%)	15 (68%)	.9
Other features			
Short-axis size (≥5 mm)	6 (28.6%)	15 (71.4%)	.02
Long-axis size (≥5 mm)	15 (71%)	18 (82%)	.49
Long-axis size (≥10 mm)	0	7 (31.8%)	.009
Mean (SD) LN no. per patient	2.5 ± 1.5	3.5 ± 2.2	.09
Overall EUS-g	8 (38%)	21 (96%)	.0001

*The EUS T stage in relation to the presence of nodal malignancy was not significant (EUS ≤T2 disease vs EUS ≥T3, *P* = .1); patients with EUS T3 disease had more visualized nodes than T2 disease but not significantly so (mean [SD]), 3.2 (2.2) vs 2 (0.8), *P* = .054.

4 Caract -> 100%E / 23% S

Tamaño ≥ 5mm
Hipoecogenicidad
} **Únicos Fpred (61% y 65%)**

- In 43 patients with untreated rectal cancer who underwent EUS-guided FNA, nodal hypoechogenicity and short-axis length ≥5 mm were factors independently predictive of malignancy.
- An optimum lymph-node short-axis or long-axis length cutoff value of 6 mm or 9 mm was 90% and 95% specific, respectively, for malignancy.

PREDICTORES N+

Estadiaje T

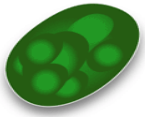
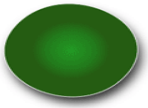
40% Tumores invasion grasa perirectal (T3)

20- 25% Tumores invasion muscular (T2)

0 - 25% Tumores invasion submucosa (T1)

- Invasión linfovascular , diferenciación
- Recto bajo
- Invasión Sm (T1sm1: 0-2%, T1sm2: 8%, T1sm3: 20-25%)

¿Cuándo es N+ en RMN?

N-stage - suspicious nodes			
Malignant characteristics	Indistinct 	Heterogeneous 	Round 
Short axis	- < 5mm : needs 3 malignant characteristics - 5 -9mm : needs 2 malignant characteristic - > 9mm : always suspicious		
cN-stage	- N0 : ***no*** *suspicious* lymph nodes - N1 : 1-3 *suspicious* lymph nodes - N2 : ≥ 4 *suspicious* lymph nodes		

Bordes irregulares
Intensidad mixta señal

Brown et Al. Radiology 2013

Entonces…
¿USE PAAF de adenopatías?

¿USE PAAF de adenopatías?

PAAF puede **no siempre aportar**

Si se ven son POSITIVOS (o sospechosos)

considerar si **CAMBIA ACTITUD**

T1-T2

Adenopatías únicas

Adenopatías no locorregionales

INFRAestadificar vs **SOBRE**estadificar

USE PAAF técnica

22 / 25 G

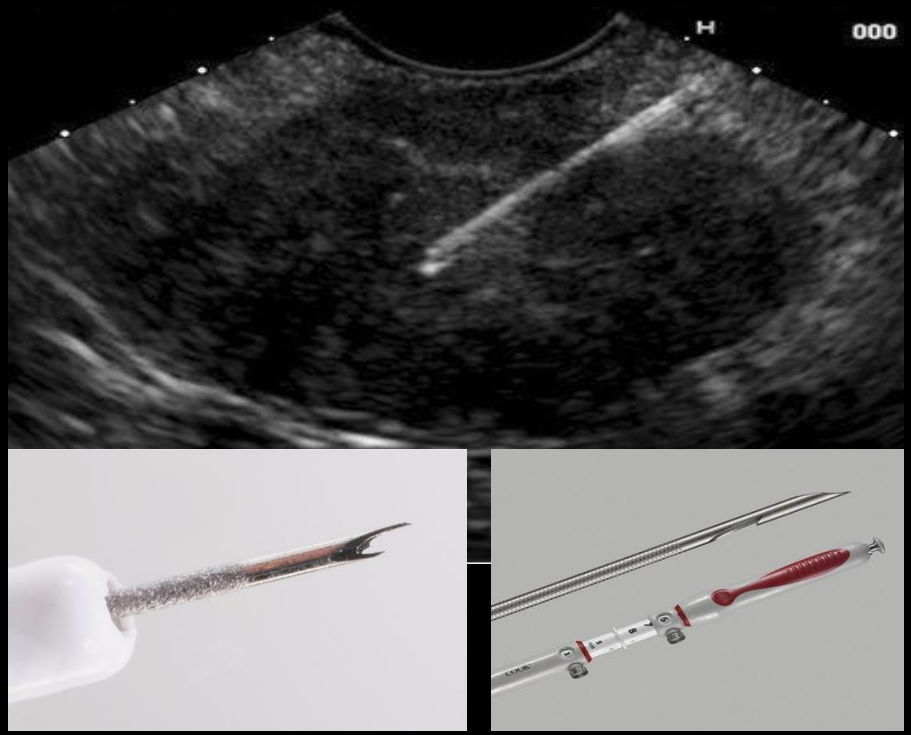
FNA / FNB

CITÓLOGO EN SALA

LINEAL +/- RADIAL

NÚMERO DE PASES (2-3/3-4)

NO ATRAVESAR TUMOR



Adenopatías extramesentéricas

ORIGINAL ARTICLE: Clinical Endoscopy

EUS-FNA assessment of extramesenteric lymph node status in primary rectal cancer

Ferga C. Gleeson, MD,[1] Jonathan E. Clain, MD,[1] Elizabeth Rajan, MD,[1] Mark D. Topazian, MD,[1] Kenneth K. Wang, MD,[1] Michael J. Levy, MD[1]

Rochester, Minnesota, USA

Gleeson, Gastrointest Endosc 2011

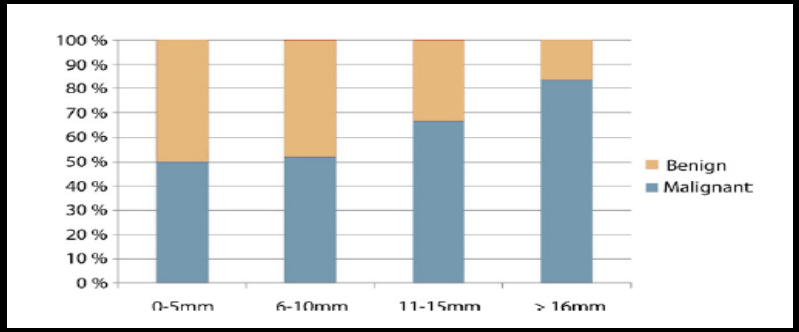


TABLE 3. Retrospective sensitivity of CT in depicting EMLNM by FNA

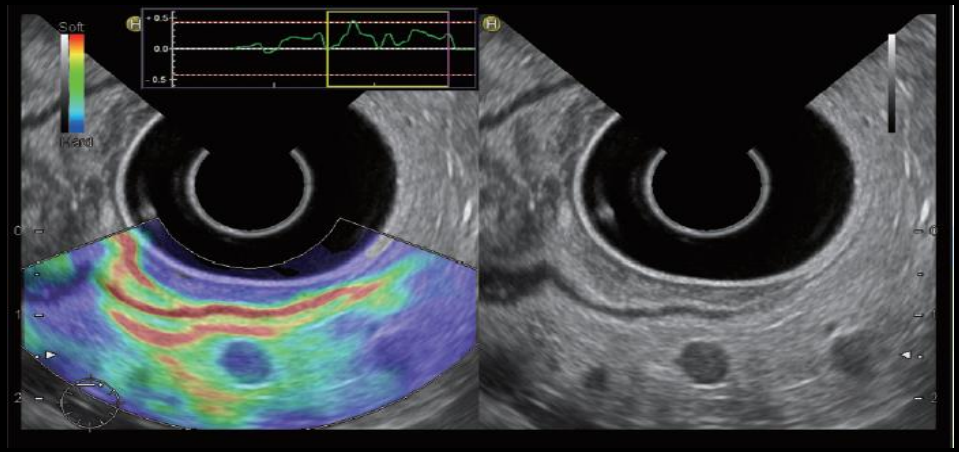
CT findings	Extramesenteric LN FNA positive (n = 41)	Extramesenteric LN FNA negative (n = 28)
Positive, no. (%)	18 (44)	3 (11)
Negative, no. (%)	23 (56)	25 (89)

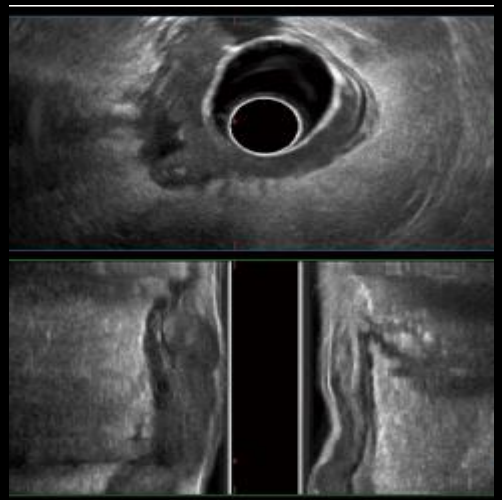
EMLNM, Extramesenteric lymph mode metastases; *LN*, lymph node.

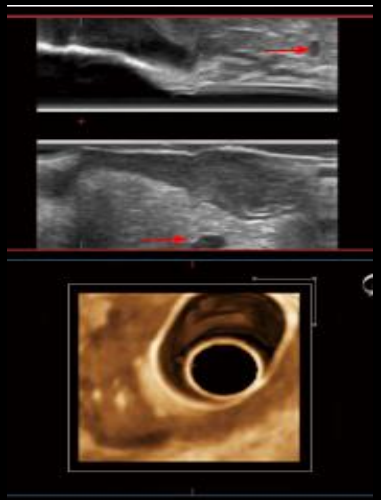
Sensibilidad 44% Especificidad 89%,

23/ 316 USE de Ca recto (7.3%) “up-staged” con PAAF

Avances USE rectal







Elastografia
Contrastes armónicos
USE tridimensional

Dietrich et al. Endoscopic Ultrasound 2015

ESTADIAJE N
Limitaciones USE

USE

BAJA ESP y SENSIBILIDAD

Adenopatías **NO LOCOREG**

tumores ESTENOSANTES

USE PAAF

FALSOS - (GL incorrecto, micromtx)

TUMOR INTERPUESTO

FALSOS + (contaminación)

SIEMBRA PERITONEAL

Factores asociados al pronostico

INFILTRACIÓN EN PROFUNDIDAD “T”

INVASIÓN LINFÁTICA “N”

MARGEN DE RESECCIÓN CIRCUNFERENCIAL

Próstata / seminales.

Útero / v

Fascia me

“DOWNSTAGING”

DESPUÉS DE NEOADYUVANCIA

INFILTRACION VASCULAR EXT

USE PAAF EN CANCER DE RECTO

TRAS NEOADYUVANCIA

REESTADIAJE

Importancia RE-ESTADIAJE

RESPUESTA PATOLÓGICA COMPLETA

Posibilidad tratamientos menos invasivos

No tratamiento – WAIT AND WATCH

¿Mejor respuesta biológica?

Dificultades

Cambios post-RT: Edema, fibrosis, necrosis

Long-term outcomes of clinical complete responders after neoadjuvant treatment for rectal cancer in the International Watch & Wait Database (IWWD): an international multicentre registry study

Maxime J M van der Valk, Denise E Hilling, Esther Bastiaannet, Elma Meershoek-Klein Kranenbarg, Geerard L Beets, Nuno L Figueiredo, Angelita Habr-Gama, Rodrigo O Perez, Andrew G Renehan, Cornelis J H van de Velde, and the IWWD Consortium*

Supervivencia 80-90%

Recidiva local 15-30%

85% abordable por Qx

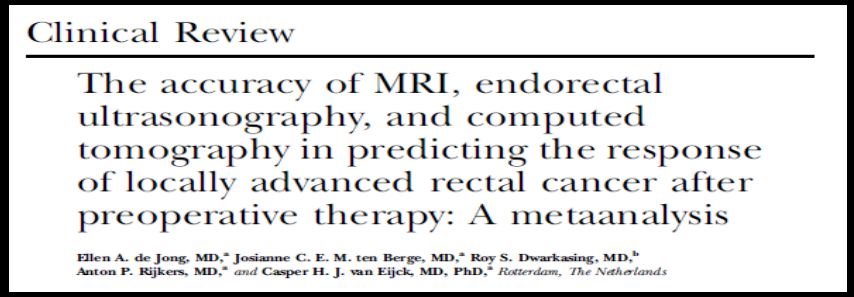
SEGUIMIENTO

RMN + BIOPSIAS ENDOSCOPICAS

Van der Valk. Lacet 2018

RE-ESTADIAJE

46 estudios, N=2224



Clinical Review

The accuracy of MRI, endorectal ultrasonography, and computed tomography in predicting the response of locally advanced rectal cancer after preoperative therapy: A metaanalysis

Ellen A. de Jong, MD,[a] Josianne C. E. M. ten Berge, MD,[a] Roy S. Dwarkasing, MD,[b] Anton P. Rijkers, MD,[a] *and* Casper H. J. van Eijck, MD, PhD,[a] *Rotterdam, The Netherlands*

Se evalúa: capacidad de las técnicas para determinar:

Respuesta completa

Invasión de MRC (T_4)

Detección adenopatías (N)

De Jong. Surgery, 2016

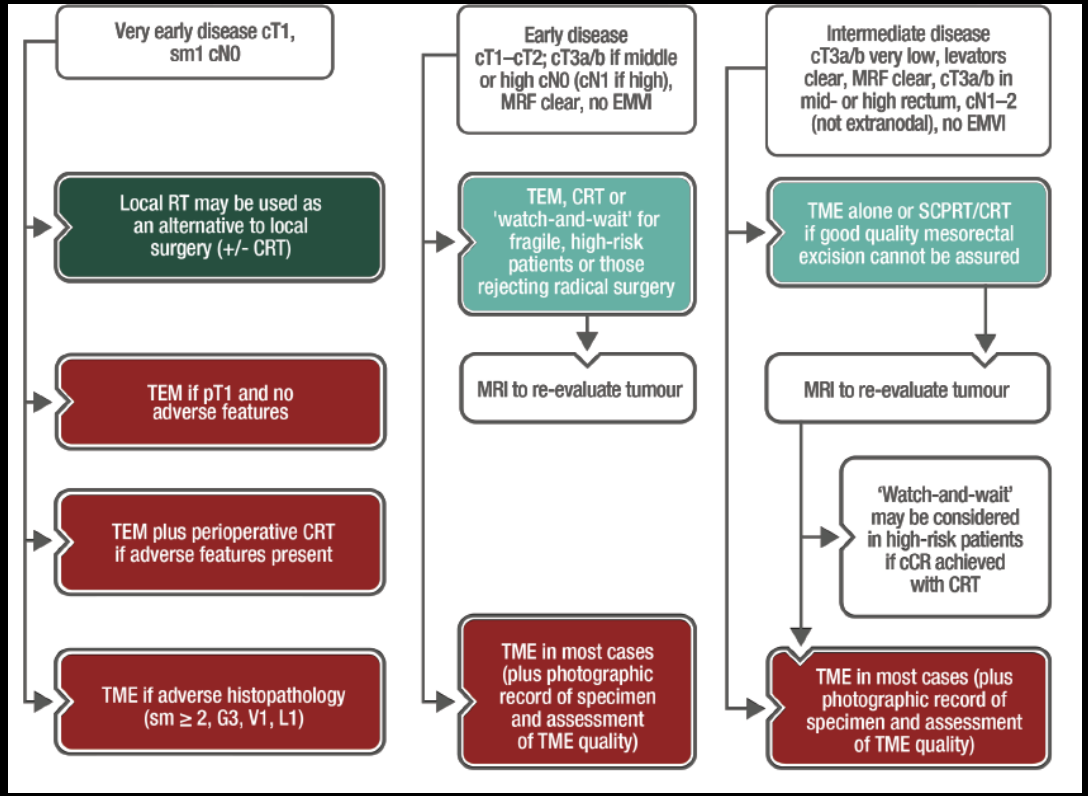
RE-ESTADIAJE

Table I. Results

	Sensitivity (%)	*Specificity (%)*	*PPV (%)*	*NPV (%)*	*Accuracy (%)*
MRI					
Complete response	95 (87–98)	31 (14–56)	83 (77–87)	47 (32–62)	75 (72–78)
Local invasion or invasion CRM	78 (61–90)	91 (80–96)	60 (46–73)	96 (91–98)	88 (86–90)
Restaging lymph node metastasis	59 (48–70)	77 (67–84)	46 (38–54)	83 (79–87)	72 (68–76)
ERUS					
Complete response	97 (90–99)	30 (16–49)	86 (80–90)	42 (19–68)	82 (79–85)
Local invasion or invasion CRM	69 (45–86)	96 (91–98)	61 (35–82)	95 (95–98)	94 (92–96)
Restaging lymph node metastasis	53 (42–65)	80 (73–86)	55 (42–67)	79 (74–84)	72 (69–75)
CT					
Complete response	96 (92–98)	21 (7.0–49)	86 (80–91)	53 (31–74)	83 (79–88)
Restaging lymph node metastasis	60 (47–72)	66 (58–74)	34 (26–43)	85 (79–90)	65 (59–70)

CRM, Circumferential resection margin; *CT*, computed tomography; *ERUS*, endorectal ultrasonography; *NPV*, negative predictive value; *PPV*, positive predictive value; *QUADAS*, Quality Assessment of Diagnostic Accuracy Studies.

Conclusion. *MRI, CT, and ERUS cannot be used to predict complete response of locally advanced rectal cancer after CRT. In addition, the positive predictive value for these imaging techniques is low for the assessment of tumor invasion in the CRM. The accuracy of the modalities to predict the presence of metastatic lymph node disease is also low. (Surgery 2016;159:688-99.)*



Rectal cancer: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. Annals of Oncology 2017

FACTORES ASOCIADOS AL PRONOSTICO

INFILTRACIÓN EN PROFUNDIDAD “T”

INVASIÓN LINFÁTICA “N”

MARGEN DE RESECCIÓN CIRCUNFERENCIAL

Próstata / seminales.

Útero / v

Fascia me

“DOWNSTAGING”

DESPUÉS DE NEOADYUVANCIA

INFILTRACION VASCULAR EXT

USE PAAF EN CANCER DE RECTO

EN EL SEGUIMIENTO

RECIDIVA

RECIDIVA LOCAL

INTRALUMINAL

EXTRALUMINAL

(espacio pararrectal)

FACTORES ASOCIADOS

TNM estadio IV

T4

N2

T3 **CRM positivo**

Factores **histologicos**

Kusters et al Eur J Surg Oncol. 2010

Colonoscopy Surveillance after Colorectal Cancer Resection: Recommendations of the US Multi-Society Task Force on Colorectal Cancer

Charles J. Kahi[1,2], C. Richard Boland[3], Jason A. Dominitz[4,5], Francis M. Giardiello[6], David A. Johnson[7], Tonya Kaltenbach[8,9], David Lieberman[10], Theodore R. Levin[11], Douglas J. Robertson[12,13] and Douglas K. Rex[2]

CR LOCALIZADO y cirugías no TME

CR LOCALMENTE AVANZADO y no NeoAdY

Rectosigmoidoscopia
+ / - EUS
cada 3-6 meses
los dos primeros años

Recommendation

Patients with localized rectal cancer who have undergone surgery without total mesorectal excision, those who have undergone transanal local excision (i.e., transanal excision or transanal endoscopic microsurgery), or endoscopic submucosal dissection, and those with locally advanced rectal cancer who did not receive neoadjuvant chemoradiation and then surgery using total mesorectal excision techniques, are at increased risk for local recurrence. In these situations, we suggest local surveillance with flexible sigmoidoscopy or EUS every 3–6 months for the first 2–3 years after surgery. These surveillance measures are in addition to recommended colonoscopic surveillance for metachronous neoplasia.

Weak recommendation, low-quality evidence

Am J Gastroenterol 2016

RECOMENDACIONES SEGUIMIENTO

CLINICAL PRACTICE GUIDELINES

Rectal cancer: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up†

R. Glynne-Jones[1], L. Wyrwicz[2], E. Tiret[3,4], G. Brown[5], C. Rödel[6], A. Cervantes[7] & D. Arnold[8], on behalf of the ESMO Guidelines Committee*

Follow-up, long-term implications and survivorship

- During follow-up, clinical examination, completion colonoscopy and pelvic imaging using MRI and/or CT and for distant metastases CT of the chest, abdomen and pelvis are recommended [V, B].

  A minimum provisional recommendation for average-risk patients is as follows:

  – Clinical assessment: e

  – A completion colono sent) [I, A].

  – History and colonosc

  – It is reasonable to offi EA tests (at least every 6 months in the first 3 years).
- High-risk patients (CRM+) may merit more proactive surveillance for local recurrence.

NO SEGUIMIENTO POR USE

Annals of Oncology 2017

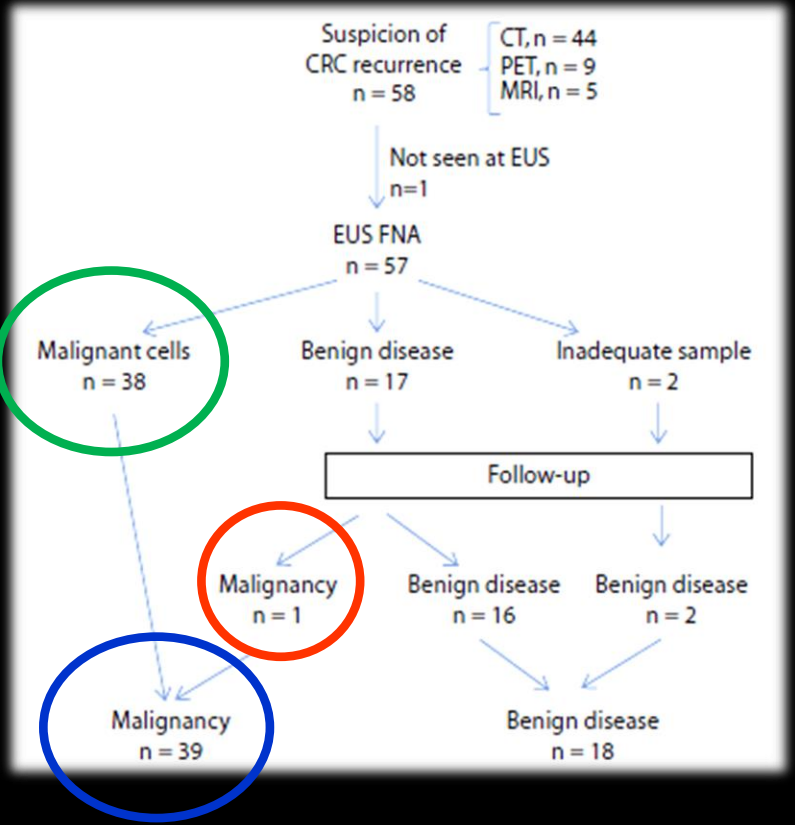
Endoscopic Ultrasound-Guided Fine Needle Aspiration Is Highly Accurate for the Diagnosis of Perirectal Recurrence of Colorectal Cancer

Gloria Fernández-Esparrach, M.D., Ph.D.[1] • Nadia Alberghina, M.D.[1]
José Carlos Subtil, M.D., Ph.D.[2] • Enrique Vázquez-Sequeiros, M.D., Ph.D.[3]
Vivian Florio, M.D.[1] • Francisco Zozaya, M.D.[2] • Isis Araujo, M.D.[1]
Angels Ginès, M.D., Ph.D[1]

58 pacientes con sospecha de recidiva
2000-2013
Recto/Colon: 42/16

Dis Colon Rectum. 2015

Endoscopic Ultrasound-Guided Fine Needle Aspiration Is Highly Accurate for the Diagnosis of Perirectal Recurrence of Colorectal Cancer



Recurrencia: 40/58: 69%

38 PAAF +

1 PAAF –

1 no visualizado

PAAF

Sensibilidad: 97%

Especificidad: 100%

The role of transrectal ultrasound-guided biopsy in the postoperative follow-up of patients with rectal cancer

Michael Hünerbein, MD, Susan Totkas, MD, Kurt T. Moesta, MD, Christoph Ulmer, MD, Tim Handke, MD, *and* Peter M. Schlag, MD, PhD, *Berlin, Germany*

Surgery 2001

Effectiveness of Endoluminal Sonography in the Identification of Occult Local Rectal Cancer Recurrences

Mathias Stefan Silvester Löhnert, M.D.,
Julius Marek Doniec, M.D., Doris Henne-Bruns, Ph.D.

Dis Colon Rectum 2000

Indications, results, and clinical impact of endoscopic ultrasound (EUS)-guided sampling in gastroenterology: European Society of Gastrointestinal Endoscopy (ESGE) Clinical Guideline – Updated January 2017

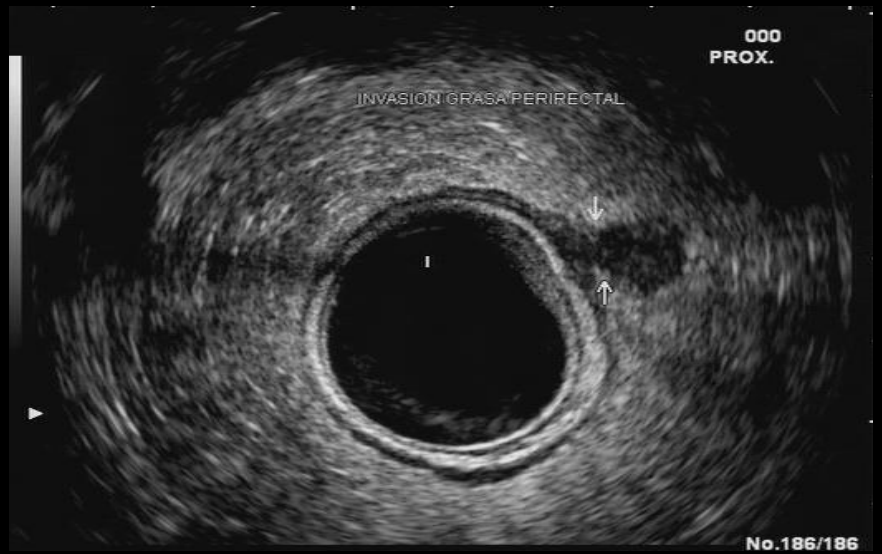
7.3 Rectal cancer

RECOMMENDATION

In rectal cancer staging, ESGE suggests against EUS-guided sampling of local LNs. In patients with a history of rectal cancer, ESGE suggests EUS-guided sampling of perirectal masses if it may impact treatment decisions.
Weak recommendation, low quality evidence.

Dumonceau et al. Endoscopy 2017

CASO CLÍNICO



Adenocarcinoma RECTO bajo T3N1 (USE & RMN)

CRT Neoadyuvante

Estadio AP: UICC/AJCC (7ª ed): ypT3 ypN0

Con invasión linfovascular y perineural

CASO CLÍNICO

Imagen nodular de 18mm sugestiva de recidiva/implante en componente preanastomótico en sigma distal (sic).
Otra pequeña imagen nodular milimetrica sospechosa.

CASO CLÍNICO

CASO CLÍNICO

PAAF: Celulas de aspecto epitelial, organizadas en pequeños grupos de celulas tridimensionales, con atipia ligera-moderada, compatible con **ADENOCARCINOMA**

CASO CLÍNICO 2

22 / 25 G

FNA / FNB

CITÓLOGO EN SALA

LINEAL +/- RADIAL

REVISAR TC

LOCALIZACION ENDOSCOPICA

Complicaciones USE PAAF baja

ENDOSCOPY

Prospective Evaluation of Adverse Events Following Lower Gastrointestinal Tract EUS FNA

Michael J. Levy, MD[1], Barham K. Abu Dayyeh, MD[1], Larissa L. Fujii, MD[1], Lisa A. Boardman, MD[1], Jonathan E. Clain, MD[1], Prasad G. Iyer, MD[1], Elizabeth Rajan, MD[1], Mark D. Topazian, MD[1], Kenneth K. Wang, MD[1], Maurits J. Wiersema, MD[1] and Ferga C. Gleeson, MD[1]

Table 4. Adverse events: all patients (*n*=502)

Any AE	Serious grade 3–4 AE Total (mean)	Grade 1	Grade 2	Grade 3	Grade 4
103 (20.5%)	28 (5.6%)	34 (6.8%)	41 (8.2%)	23 (4.6%)	5 (1.0%)
		Bleed (*n*=20) Pain (*n*=9) Fever (*n*=5)	Pain (*n*=20) Hypotension (*n*=13) Bleed (*n*=8)	Pain (*n*=19) Bleed (*n*=2) Perforation (*n*=1) Appendicitis (*n*=1)	Pain (*n*=4) Bleed (*n*=1)

MENSAJES PARA LLEVAR A CASA

USE +/- PAAF AL DIAGNÓSTICO

ESTADIAJE T (USE)

T0 vs T1 (ESD/ TENS) vs T2 (MRE)

T2 vs T3 (Neoadyuvancia)

ESTADIAJE N (USE PAAF):

Si cambio de actitud

T 1-2, N+

T3 N?

Adenopatías No locorregionales

MENSAJES PARA LLEVAR A CASA

RE-ESTADIAJE & RECIDIVA

NO VALOR EN **RE-ESTADIAJE** TRAS NEOADYUVANCIA

CONFIRMACION DE **RECIDIVAS**: PAAF DE ADENOPATÍAS/ MASAS

USE PAAF EN PATOLOGIA PERIRRECTAL

(Endometriosis, tumores ginecológicos y otros)

Mariano González-Haba Ruiz
Gastroenterologia y Hepatologia

Especialización en Ultrasonografía Endoscópica Avanzada

Universidad de Alcalá

ENDOMETRIOSIS

LESIONES SUBMUCOSAS

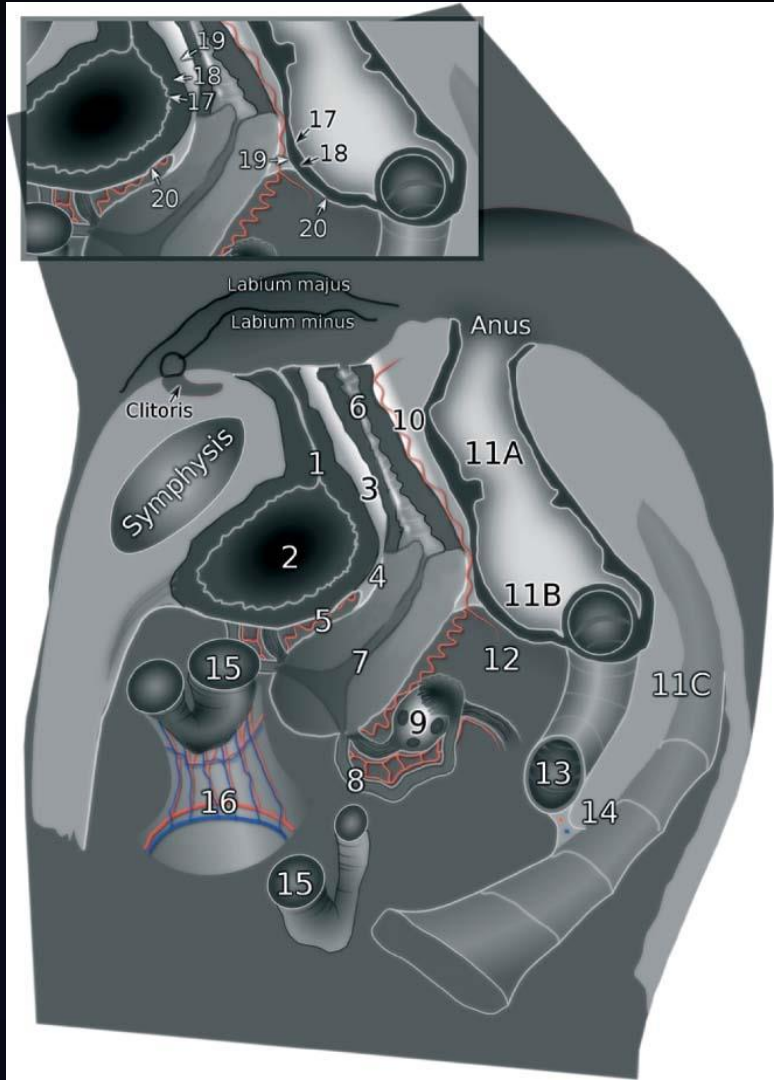
COLECCIONES PERIRRECTALES

OTRA PATOLOGÍA PÉLVICA

USE en patología ginecológica

1 Urethra
2 Bladder
3 Ureterovaginal space
4 Vesicocervical space
5 Vesicouterine pouch
6 Vagina
7 Uterus
8 Fallopian tube
9 Ovary
10 Rectovaginal space
12 Pouch of Douglas (rectouterine pouch)
13 Sigmoid colon
14 Sigmoid mesocolon
15 Small intestine (ileum)
16, Mesentery of small intestine (root of mesentery)

Fischerova, Ultrasound Obstet Gynecol 2011



USE PAAF EN PATOLOGIA PERIRRECTAL

ENDOMETRIOSIS

Mucosa de tipo endometrial situada
fuera de la cavidad uterina

8-15% mujeres fertiles

Superficial

Ovarica

Profunda

Endometriomas

Adherencias

Menstruacion retrógada ->via transtubárica ->peritoneo / organos abdominales

ENDOMETRIOSIS

ESTRÓGENO DEPENDIENTE

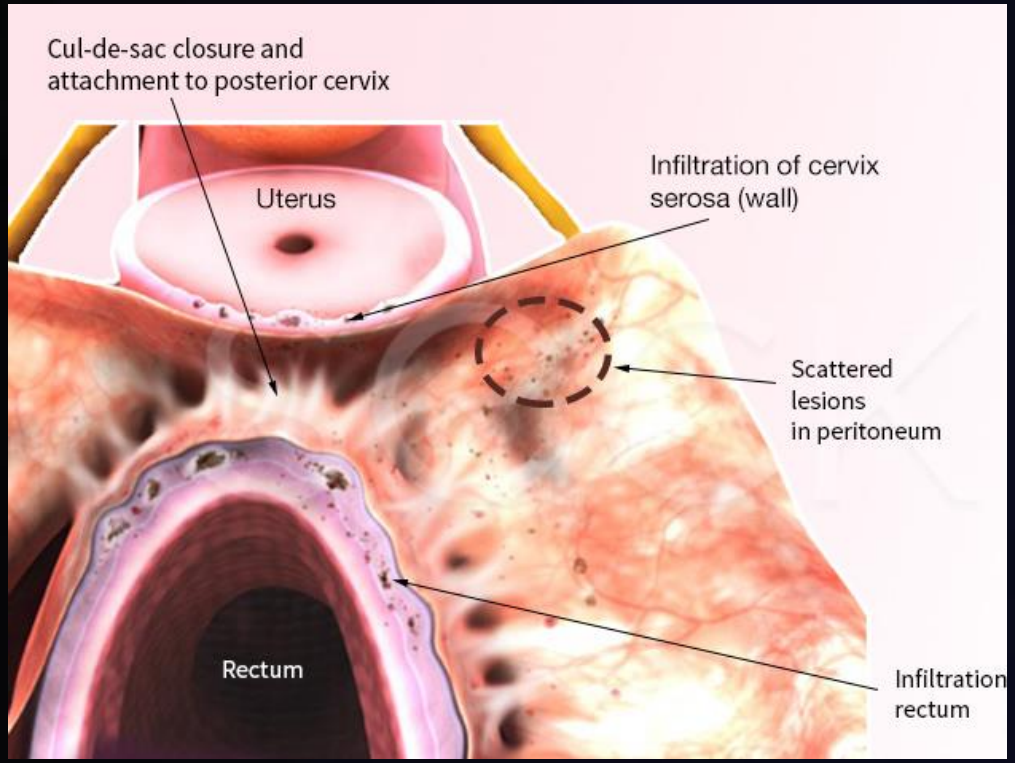
INFLAMACIÓN CRÓNICA / ADHERENCIAS

SÍNTOMAS

Dolor e infertilidad

Dismenorrea, dispaurenia, disquecia, disuria, dolor abdominal…

Endometriosis infiltrativa profunda (DIE)



INVASIÓN POR LESIONES ENDOMETRIÓSICAS

5 mm por debajo peritoneo
retroperitoneo
pared de los órganos pélvicos

Endometriosis infiltrativa profunda

3-37% mujeres con endometriosis

Peritoneal

Espacio rectovaginal

Ligamento uterosacro

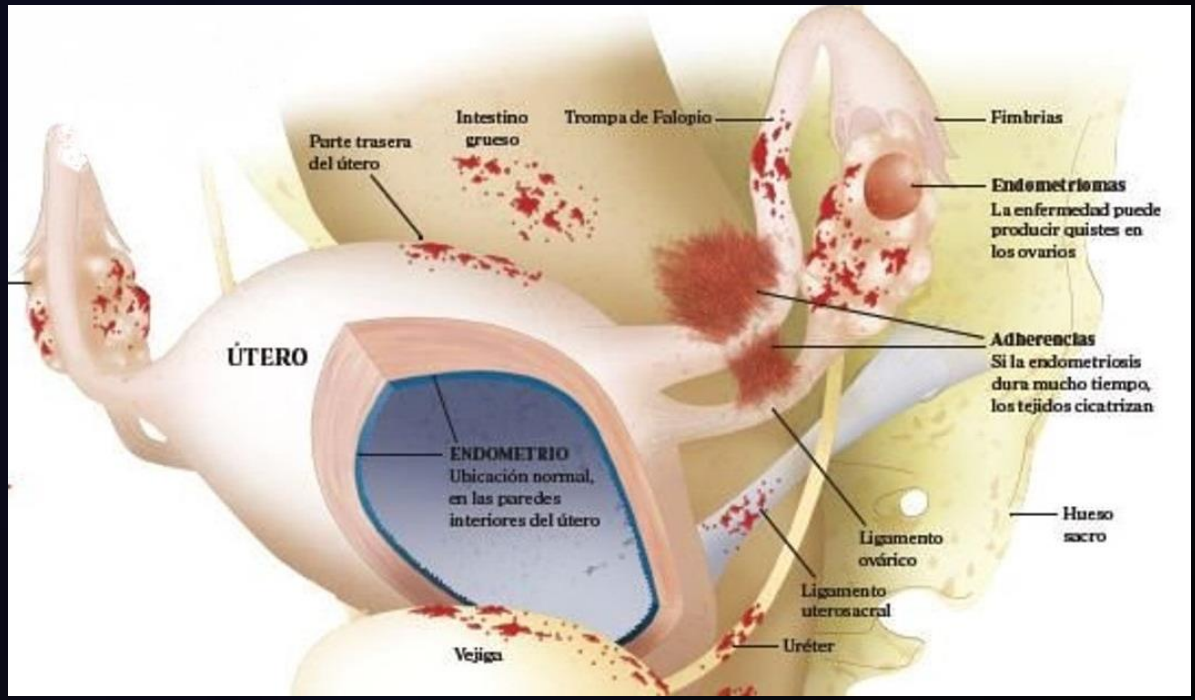
Septo rectovaginal

Vagina

Ureteres

Intestino delgado

Colon / Recto



ENDOMETRIOSIS- DIAGNOSTICO

1. Anamnesis / exploración física

2. Ecografía transvaginal

Rectosigmoid colon – S 91 % E 97%
Uterosacral ligament – S 53% E 93%
Rectovaginal septum – S 49% E 96%
Vagina –S 58 % E 96%
Bladder –S 62 % E 100%

3. RMN

4. Endoscopia / EUS (Intestinal)

ENDOMETRIOSIS RECTO-INTESTINAL

LOCALIZACIÓN

- **Recto (13-53%)**
- **Sigma(18-47%)**

Ileon / ID (2- 5 %)

Apéndice (3-18%)

Múltiple (40%)

SÍNTOMAS

Dolor abdominal

Rectorragia (menstruación)

ENDOMETRIOSIS RECTAL

INFILTRACIÓN M.PROPIA o SUBMUCOSA

<5% infiltración mucosa

Endoscópicamente

Normal

Lesión submucosa

Compresión extrínseca / estenosis

Edema /eritema

Lesión vellosa

ENDOMETRIOSIS RECTAL

Endometriosis
Tratamiento

Síntomas

Medico

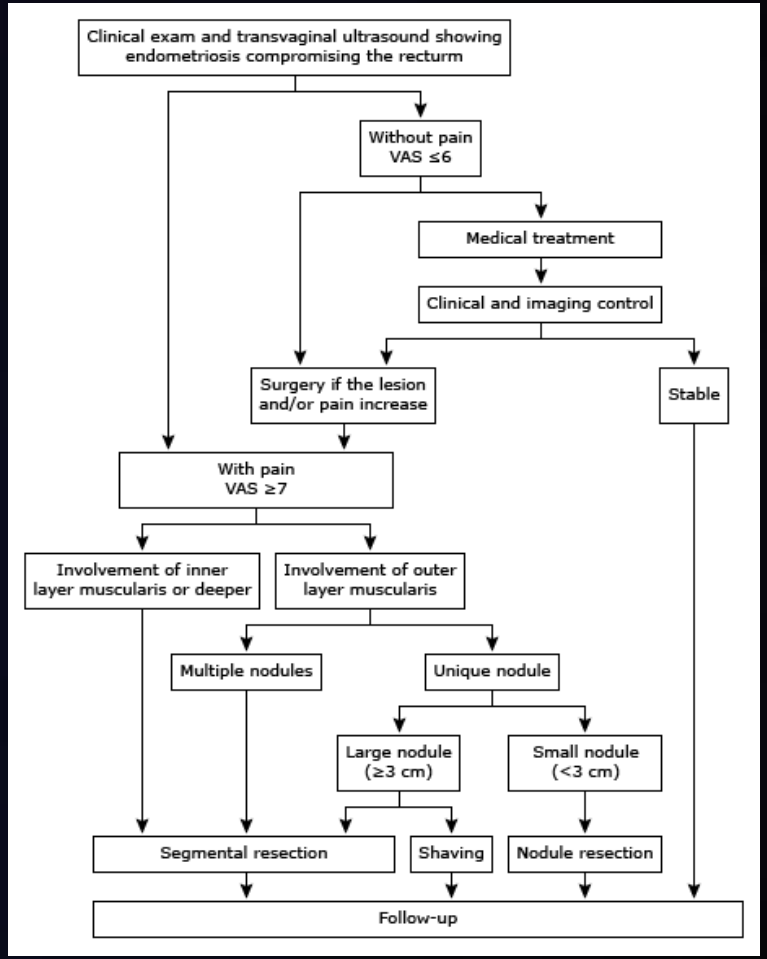
Quirúrgico

Grado de infiltración

Shaving (serosa)

Escisión en disco / full thickness

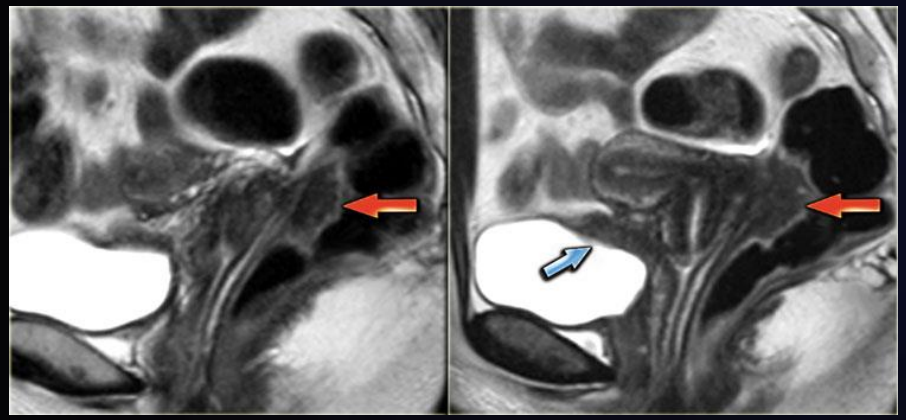
Resección intestinal



ENDOMETRIOSIS
PAPEL DE LA USE

RMN

Estudio inicial



USE

Extensión transmural

Descartar otras causas

Distancia al margen anal

Original Article

Magnetic Resonance Imaging Compared with Rectal Endoscopic Sonography for the Prediction of Infiltration Depth in Colorectal Endometriosis

Arane Kim, MD, Pedro Fernandez, MD, Brigitte Martin, MD, Laurent Palazzo, MD, Lara Ribeiro-Parenti, MD, Francine Walker, MD, Margot Bucau, MD, Helene Collinot, MD, Dominique Luton, MD, PhD, and Martin Koskas, MD, PhD

From the Department of Obstetrics and Gynecology (Drs. Kim, Collinot, Luton, and Koskas), Departments of Radiology (Dr. Fernandez), Digestive Surgery (Dr. Ribeiro-Parenti), Pathology, Bichat Hospital, Paris, France (Drs. Walker and Bucau), Institut de Radiologie de Paris, Paris, France (Dr. Martin), Clinique du Trocadéro, Paris, France (Dr. Palazzo), and Paris Diderot University, Paris, France (Dr. Koskas).

Table 4

Magnetic Resonance Imaging (MRI) and Rectal Endoscopic Sonography (RES) Results

	MRI		RES	
	Muscularis	Submucosa/Mucosa	Muscularis	Submucosa/Mucosa
Sensitivity, %	68	47	—	79
Specificity, %	100	81	—	48
Positive predictive value, %	100	69	93	58
Negative predictive value, %	20	63	—	71
Positive likelihood ratio	—	2.49	—	1.51
Negative likelihood ratio	0.32	0.65	—	0.44

Journal of Minimally Invasive Gynecology 2017

RMN detecta DIE
pero menos precisa que **USE para grado infiltracion**

Diagnostico **RMN** es suficiente
si positivo para **infiltracion mucosa o sm**

USE necesaria en caso de
alta sospecha y **RMN negativa**

Rectosigmoid Endometriosis: Endoscopic Ultrasound Features and Clinical Implications

G. Roseau[1], I. Dumontier[1], L. Palazzo[1], C. Chapron[2], B. Dousset[3], S. Chaussade[1], J. B. Dubuisson[2], D. Couturier[1]

[1] *Dept. of Gastroenterology, Cochin Hospital, Paris, France*
[2] *Dept. of Gynecology, Cochin Hospital, Paris, France*
[3] *Dept. of Digestive Surgery, Cochin Hospital, Paris, France*

Endoscopy. 2000 Jul;32(7):525-30

46 pacientes sospecha de endometriosis rectoisgmoidea

- **USE normal 9pc, lesiones no infiltrantes 9pc, Infiltración rectal 25pc (VPP: 100% con qx)**

- **Insuficiente para exploración completa**

ENDOMETRIOSIS, USE

HIPOECOGÉNICOS

HETEROGÉNEOS
(QUISTES DE CHOCOLATE)

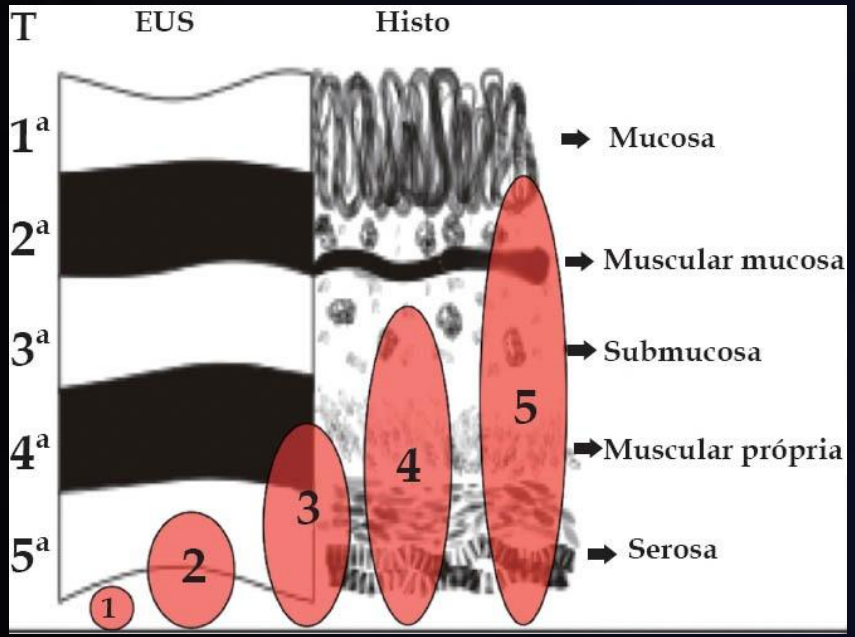
INFILTRACIÓN DE VARIAS
CAPAS EN PROFUNDIDAD

RARA INFILTRACIÓN
MUCOSA

FORMA DE SEMILUNA

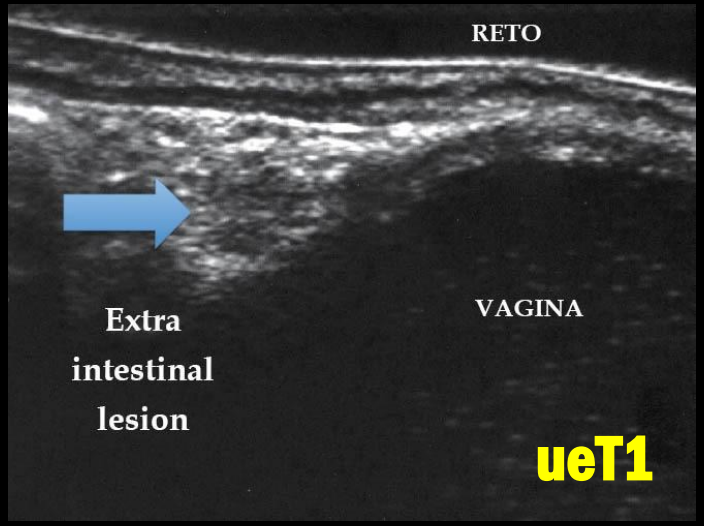
Endoscopy. 2000 Jul;32(7):525-30

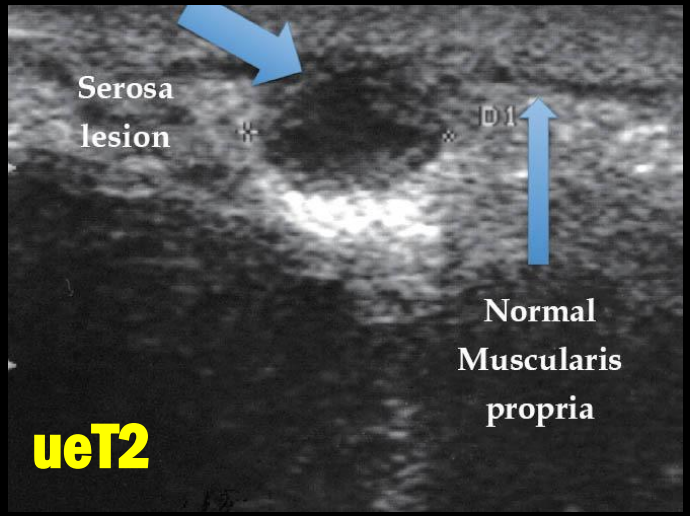
ENDOMETRIOSIS
CLASIFICACION USE (UETX)

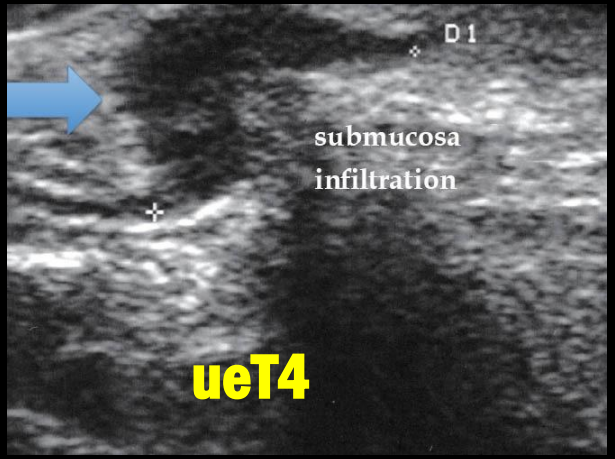


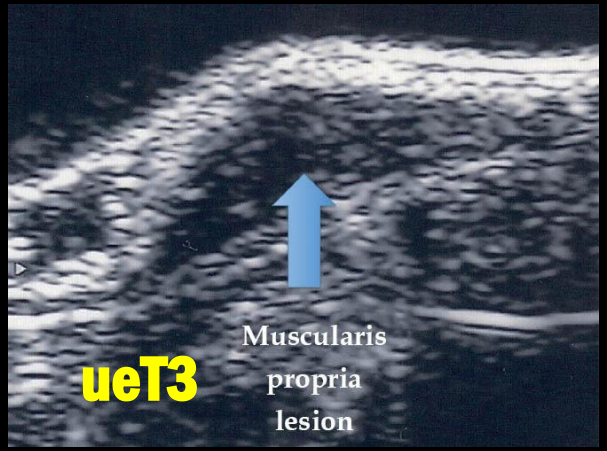
Classification	Depth of infiltration
ueT1	Extra intestinal lesion (**Figure 13**)
ueT2	Lesion that infiltrates the intestinal serosa (**Figure 14**)
ueT3	Lesion that infiltrates the serosa and muscularis própria (**Figure 15**)
ueT4	Lesion that infiltrates from the serosa to the submucosa (**Figure 16**)
ueT5	Lesion that infiltrates from the serosa to the mucosa (**Figure 17**)

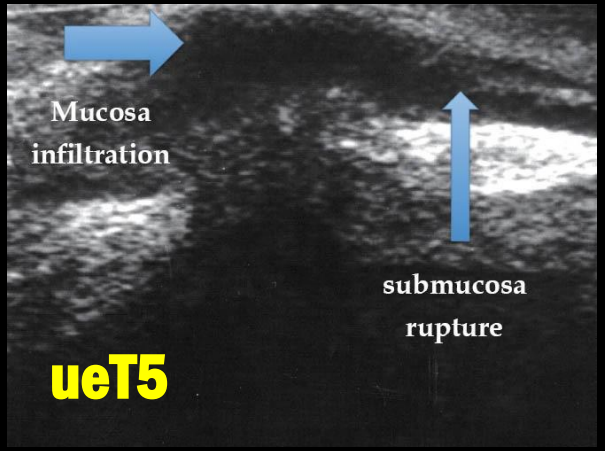
Rossini L et al. The echo-logic classification for deep pelvic endometriosis. Gastrointest Endosc. 2002.


RETO
Extra
intestinal
lesion
VAGINA
ueT1

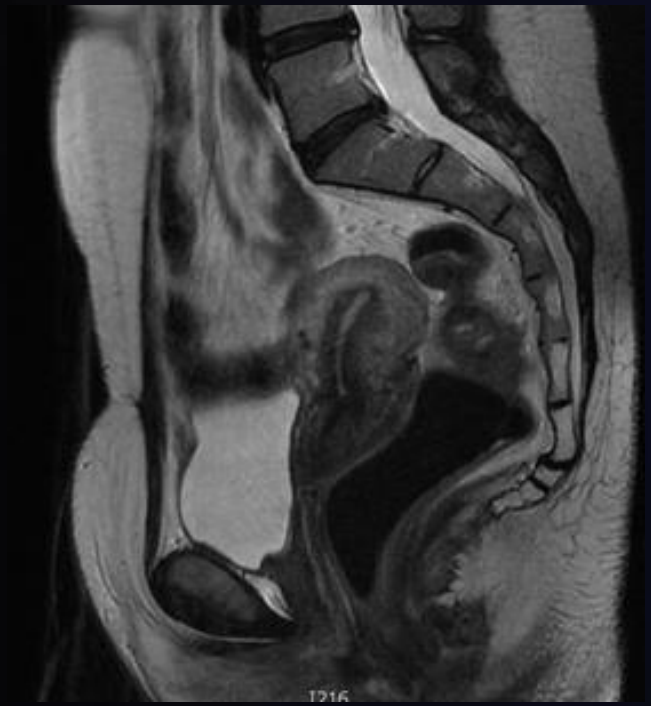

Serosa
lesion
D1
Normal
Muscularis
propria
ueT2


D1
submucosa
infiltration
ueT4


Muscularis
propria
lesion
ueT3


Mucosa
infiltration
submucosa
rupture
ueT5

ENDOMETRIOSIS
RMN / USE



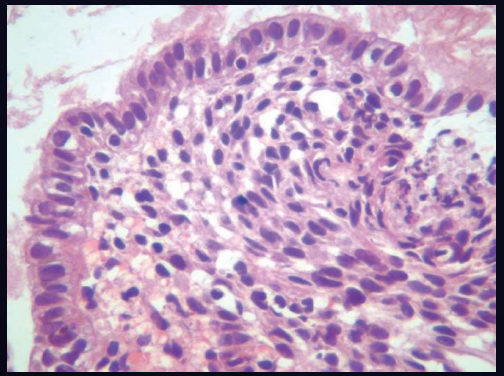
ENDOMETRIOSIS USE-PAAF

INDICACIÓN

Duda diagnostica

Descartar lesiones neoplásicas

Dx **recidivas**



TÉCNICA

Infiltración al menos muscular

No atravesar la pared

22 / 25G

Rossini, Endosc Ultrasound. 2012


HITACHI
HMM
Endoscope
'19/04/08 20:02:53
P:100% MI 0.4 TIS<0.4
0
2
4
6
8
10
Calip
D1 46.1 mm
DISTAL
FR:12 BG:15 DR:65
EG-3670URK 7.5MHz

USE PAAF EN PATOLOGIA PERIRRECTAL

TUMORES GINECOLÓGICOS

USE
CA CÉRVIX / ÚTERO

ESCASO USO para diagnostico - estadiaje

Estadiaje locorregional mediante **MRI**

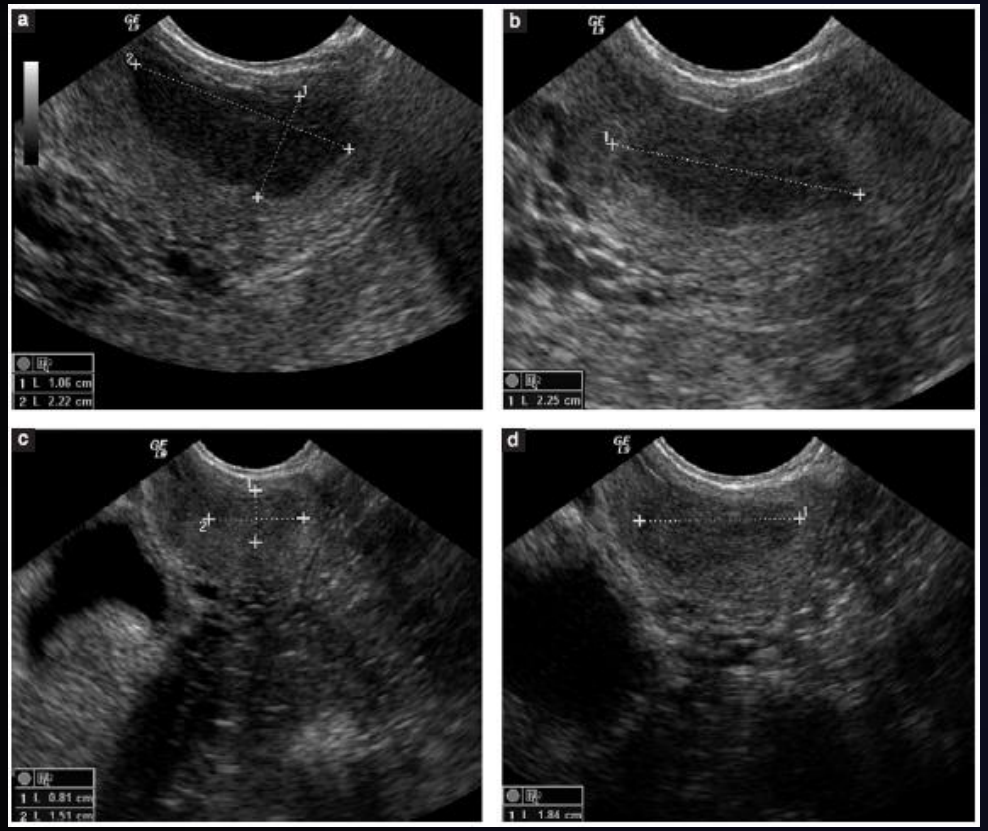
Estadio IV –**Invasión de recto**

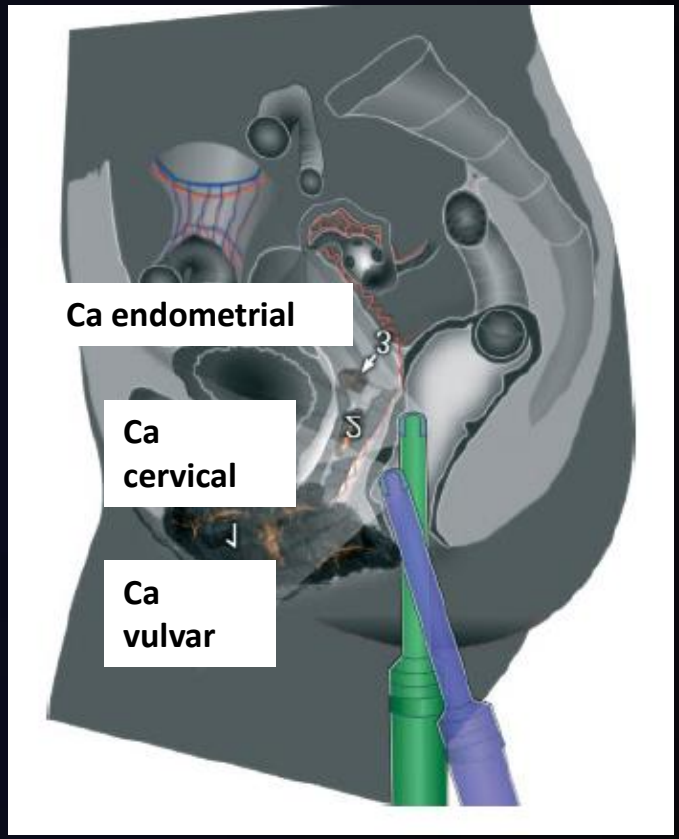
Braquiterapia intracavitaria (Ca cervix localmente avanzado)

Planificación

Recidiva pélvica no accesible

CA GINECOLÓGICOS



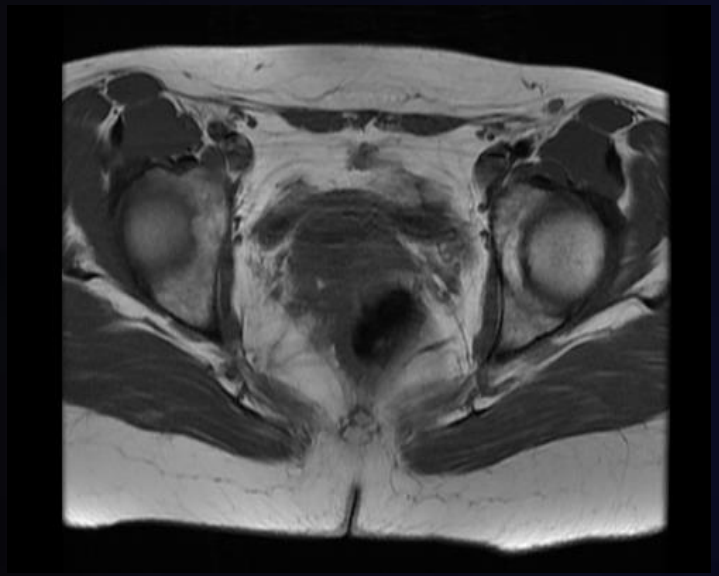


CASO CLÍNICO

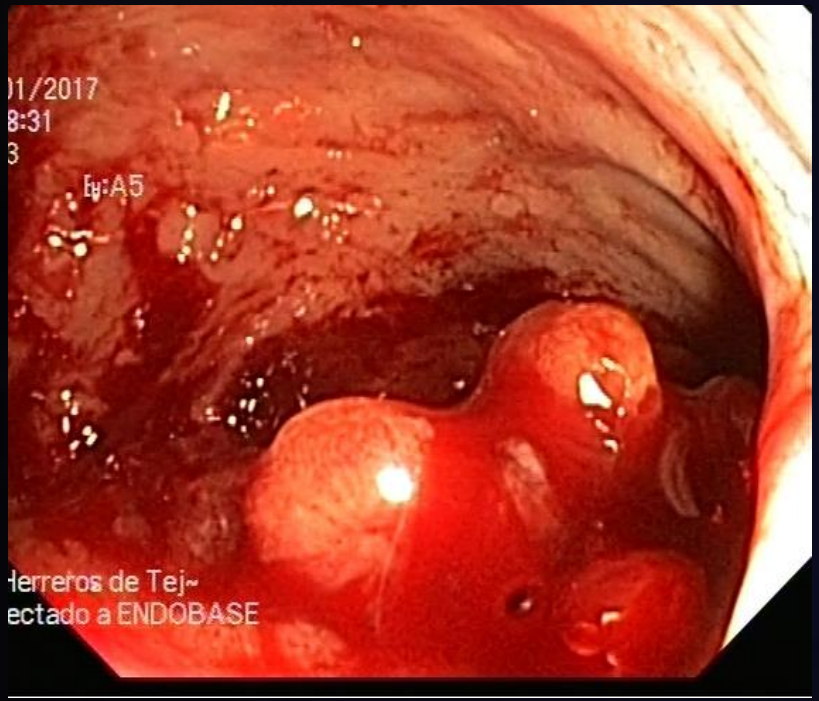
Mujer 35 años

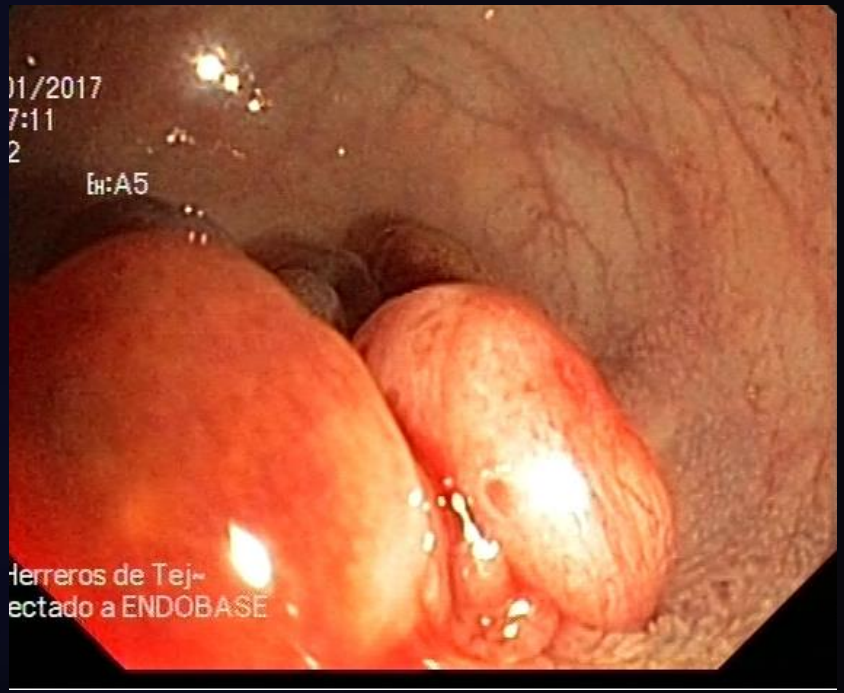
RMN Tumor de 30x24x24 entre utero vagina y recto, origen incierto

PET-TC: Masa solida hipermetabólica de 3-4cm SUV max 4



CASO CLÍNICO





Biopsias endoscopicas y PAAF:
Tumor de colision epitelial y mesenquimal: **Adenosarcoma**

Histerectomía y reseccion rectal:
ADENOSARCOMA de bajo grado de endocervix, infiltracion rectal. T4NxMx

USE PAAF EN PATOLOGIA PERIRRECTAL

LESIONES SUBEPITELIALES RECTALES

LESIONES SUBEPITELIALES

Table 2. Main Endoscopic Ultrasonography Features of Subepithelial Lesions in Colorectum

Subepithelial lesions	Endoscopic ultrasonography features
Benign lesions	
Leiomyoma	Hypoechoic, round or oval, well demarcated
Schwannoma	Hypoechoic, round or oval, well demarcated
Lipoma	Hypoechoic, smooth margins
Lymphangioma	Anechoic
Varices	Anechoic, serpiginous or linear
Lesions with malignant potential	
GIST (origin)	Hypoechoic, round, <3 cm, homogenous with smooth margin
GIST (borderline or malignant)	>3 cm, heterogenous with cystic spaces and irregular extraluminal border
Carcinoid tumor	Hypoechoic
Lymphoma	Hypoechoic
Sarcoma	Hypoechoic, round often heterogenous with irregular extraluminal border or invasiveness

GIST, gastrointestinal stromal tumor.

TUMORES MESENQUIMALES

TUMORES NEUROENDOCRINOS

LIPOMAS

GIST RECTAL

5% GIST

CD117 (target de imatinib) (CD34, SMA y S-100)

Factores riesgo

Tamaño

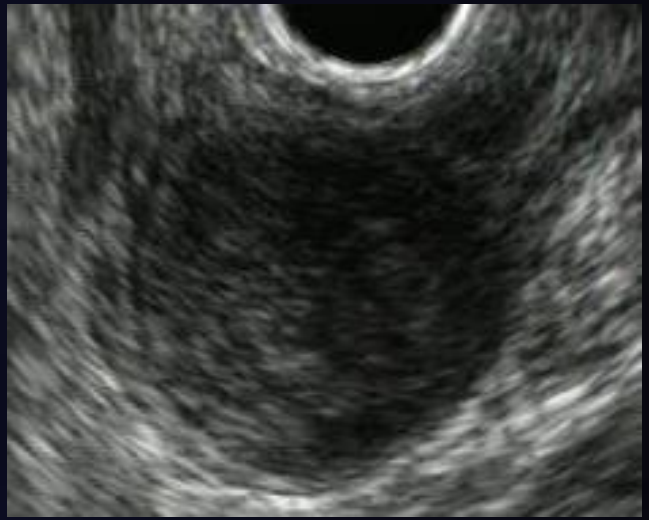
Indice mitótico

Ruptura

Localizacion

Mayor **potencial maligno** que GIST altos

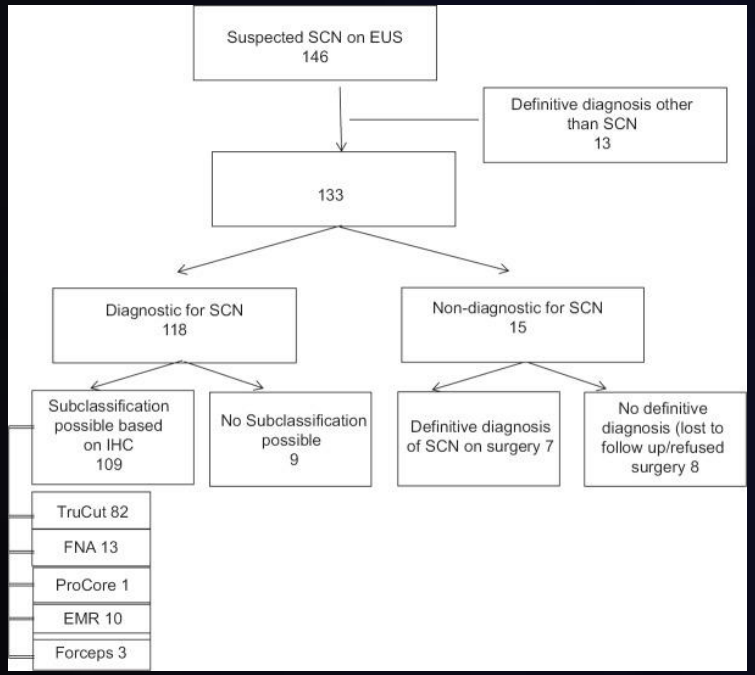
GIST RECTAL



Endoscopic ultrasound with tissue sampling is accurate in the diagnosis and subclassification of gastrointestinal spindle cell neoplasms

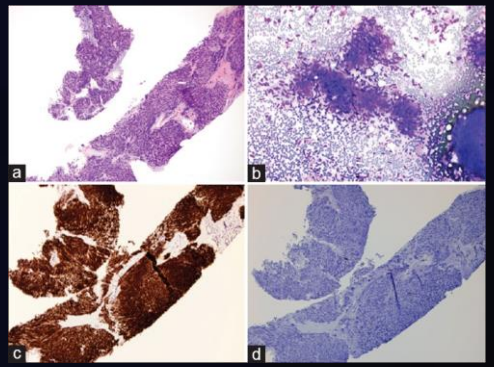
Dalbir Singh Sandhu,[1,2] Adrian N. Holm,[1] Rami El-Abiad,[1] Carolyn Rysgaard,[1] Chris Jensen,[1] and Henning Gerke[1]

Endoscopic Ultrasound 2017



Variable	*n* (% or±SD)
Number of patients	146
Sex, *n* (%)	
Males	65 (44.5)
Mean age±SD (years)	62.33±14.45
Mean size of the lesion (mm)	26.5±15.9
Location, *n* (%)	
Stomach	90 (61.6)
Esophagus	28 (19.2)
Duodenum	11 (7.5)
GE junction	10 (6.8)
Colorectum	7 (4.8)

SD: Standard deviation, GE: Gastro-osophageal



Gastrointestinal stromal tumours: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up†

The ESMO/European Sarcoma Network Working Group*

Annals of Oncology 2014

UK clinical practice guidelines for the management of gastrointestinal stromal tumours (GIST)

Ian Judson[1*], Ramesh Bulusu[2], Beatrice Seddon[3], Adam Dangoor[4], Newton Wong[5] and Satvinder Mudan[6]

Clin Sarcoma Res (2017)

"Rectal (or recto-vaginal space) nodules should be biopsied and preferably excised after ultrasound assessment, regardless of tumour size."

Table 2 Modified NIH risk classification for primary GIST

Risk category	Tumour size (cm)	Mitotic index (per 50 HPFs)	Primary tumour site
Very low risk	<2.0	≤5	Any
Low risk	2.1–5.0	≤5	Any
Intermediate risk	2.1–5.0	>5	Gastric
	<5.0	6–10	Any
	5.1–10.0	≤5	Gastric
High risk	Any	Any	Tumour rupture
	>10	Any	Any
	>5.0	>5	Any
	2.1-5.0	>5	Non gastric
	5.1–10.0	≤5	Non gastric

After Joensuu [18]

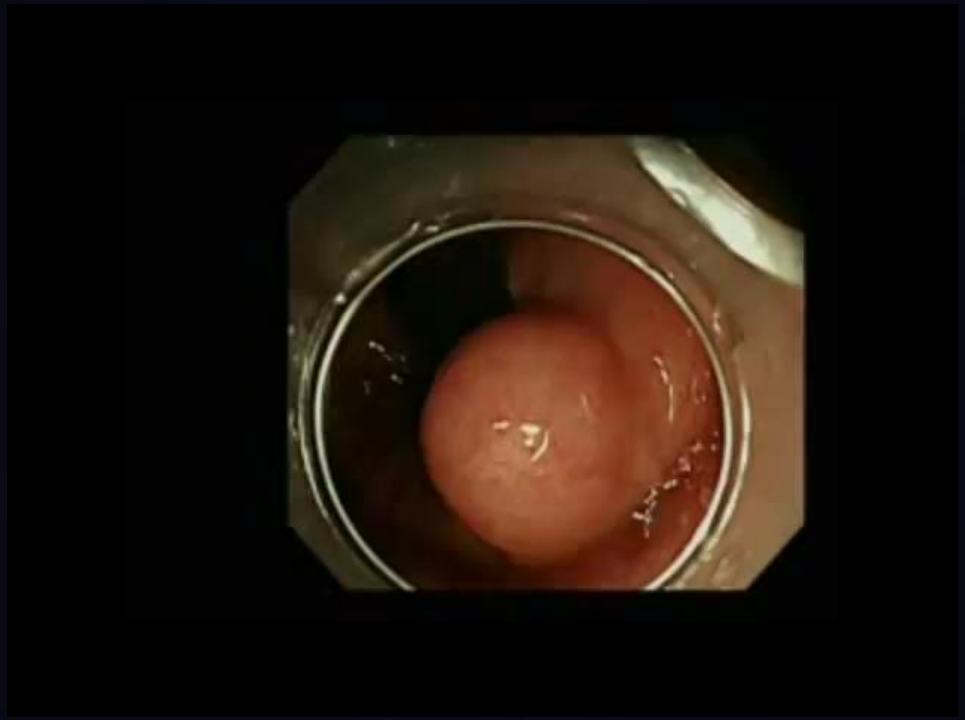
Key recommendations

1. GIST should be managed by an experienced multi-disciplinary team.
2. Pre-operative imatinib should be considered for those large gastric or rectal primaries where immediate resection is likely to be morbid, e.g. total gastrectomy or abdomino-perineal resection. In this situation mutational analysis is mandatory prior to the initiation of imatinib therapy.
3. Patients at high risk of recurrence or distant relapse should receive 3 years of adjuvant imatinib, provided their tumour is not likely to be resistant to therapy (*PDGFRA* exon 18 mutation D842V).

GIST RECTAL


HITACHI Servicio de Gastroenterologia
P:H MI
FR:26
26-JAN-18 14:49:05
000
PROX.
BG:11 70/H/4/5/0/A/5
R54AW-33 7.5M ANAL
65mm
2 Biplane
3 HI Sup.B
4 HI Sup.Rst
5 Angle;6
6 Density;1
7 HdTHI

GIST RECTAL



Konuma Gastrointestinal endoscopy 2011

TUMORES NEUROENDOCRINOS RECTALES

Table 1. TNM Staging Neuroendocrine Tumors of the Colon and Rectum

Primary tumor (T)	
TX	Primary tumor cannot be assessed
T0	No evidence of primary tumor
T1	Tumor invades lamina propria or submucosa; size <2 cm
T1a	Tumor size <1 cm
T1b	Tumor size 1–2 cm
T2	Tumor invades muscularis propria or size >2 cm with invasion of lamina propria or submucosa
T3	Tumor invades through the muscularis propria into the subserosal tissue without penetration of overlying serosa
T4	Tumor invades peritoneum or other organs
Regional lymph nodes (N)	
NX	Regional lymph nodes cannot be assessed
N0	No regional lymph node metastasis
N1	Regional lymph node metastasis
Distant metastases (M)	
M0	No distant metastasis
M1	Distant metastasis

1/3 NETs

Diagnostico incidental

- 80% <1cm
- 90% submucosa
- 80 % G1

Table 1 Tumor grade according to mitotic count and proliferation.

WHO grade	Mitotic count (10 HPF[a])	Ki-67 index
G1	<2	≤2%
G2	2–20	3–20%
G3	>20	>20%

[a] Per 10 high-power fields.

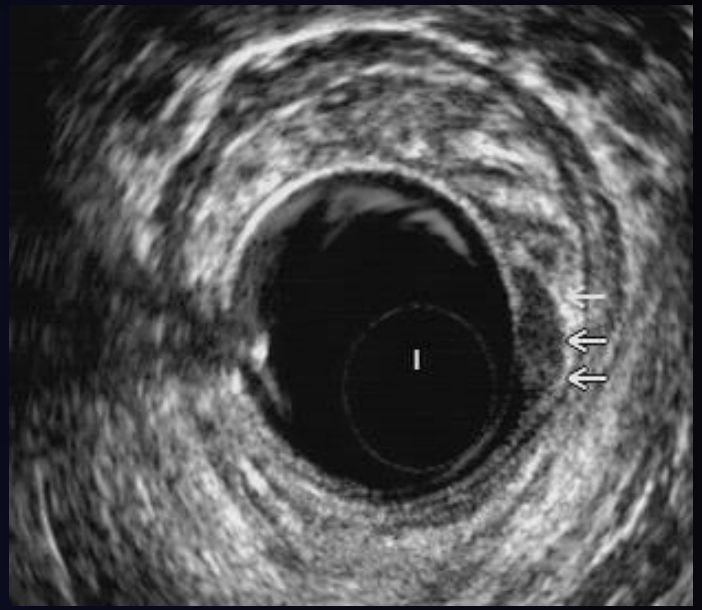
Pronostico asociado a:
Tamaño, invasion mp, Ki-67,
invasion linfovascular y perineural

USE TUMORES NEUROENDOCRINOS

Tamaño

Invasión en profundidad

Presencia de adenopatías



MANEJO

<10 mm	RESECCIÓN ENDOSCÓPICA
10-20 mm	
>20 mm	CIRUGÍA

TRATAMIENTO NET RECTALES

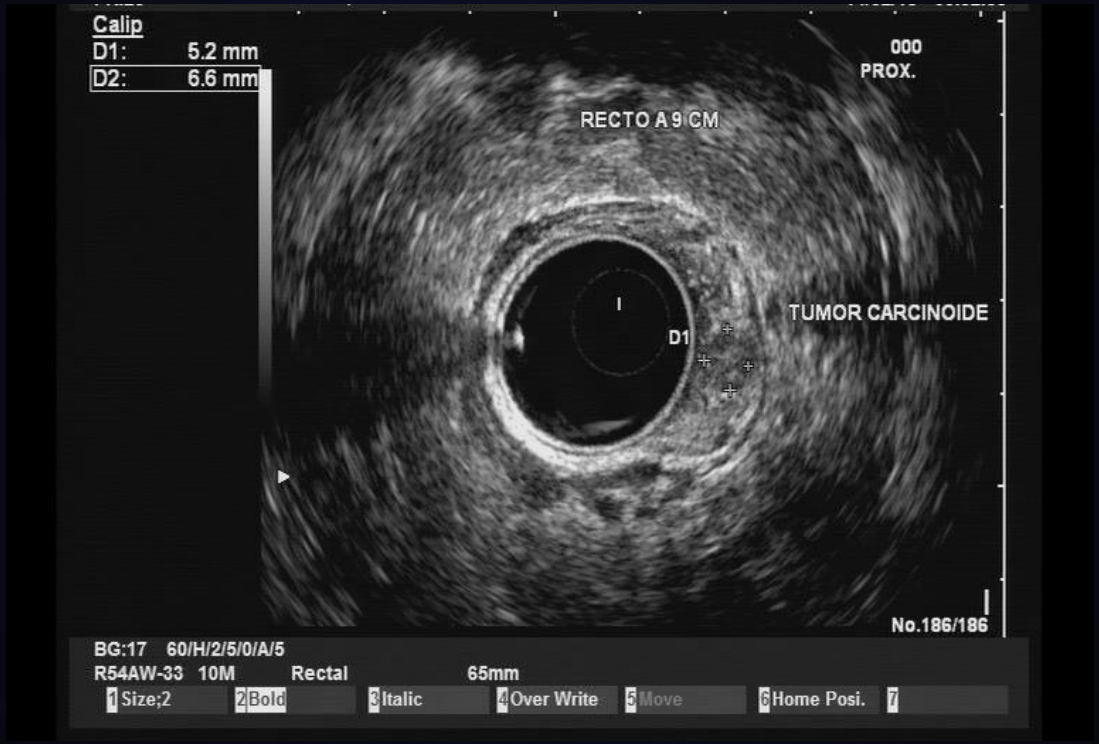
Table 2. Comparison of Rectal Neuroendocrine Tumor Resection Techniques

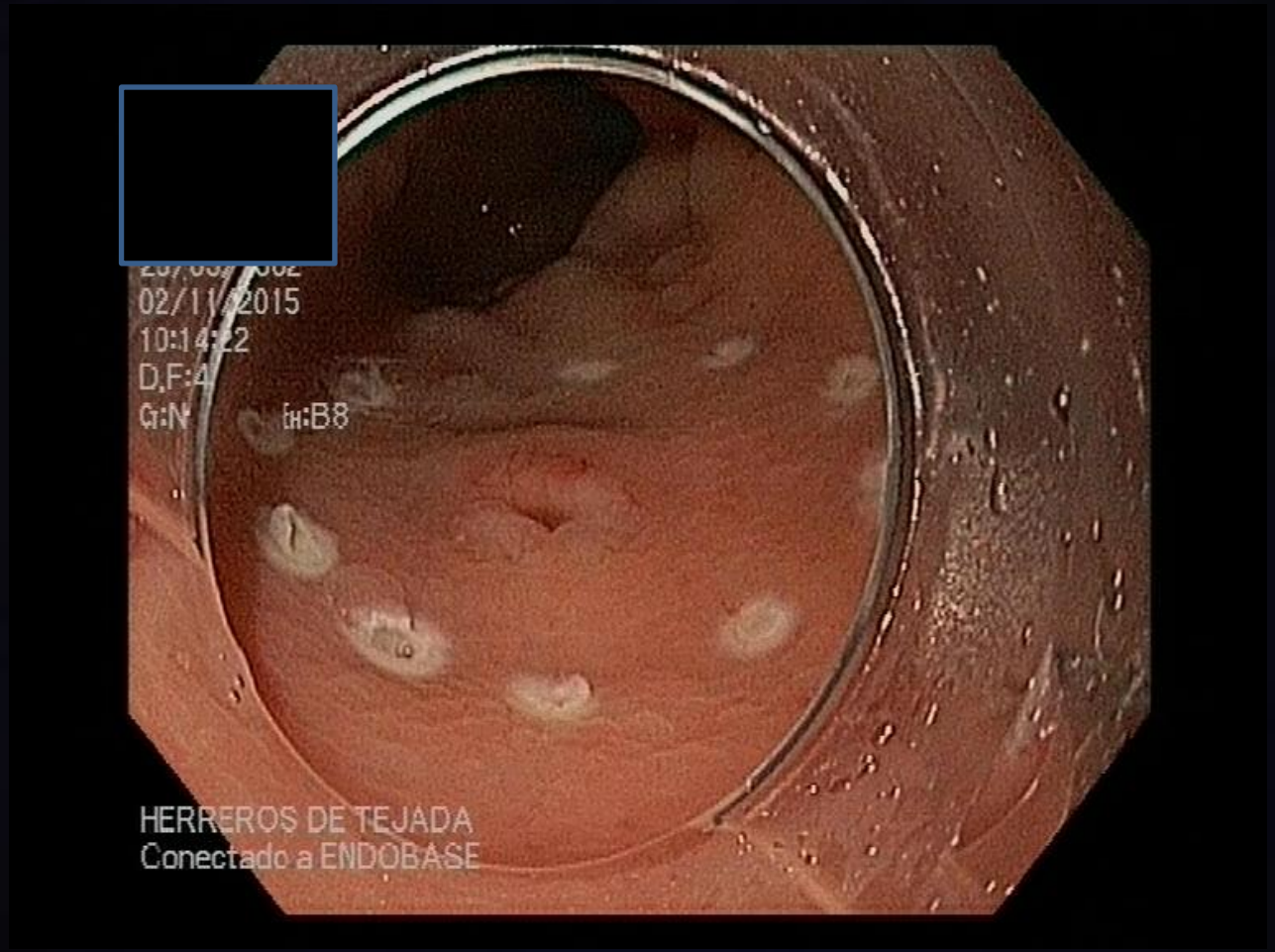
Technique	Advantages	Disadvantages	Patient selection
Standard polypectomy	Simple technique, low risk of complication, decreased procedural time	High rate of incomplete resection	<5 mm, confined to mucosa
EMR	Simple technique, low risk of complication, decreased procedural time	Variable rate of completion resection (30%–70%)	<5 mm
ESD	High complete/*en-bloc* resection rate (80%–100%)	Increased length of procedure, Increased complications (perforation, delayed bleeding), Increased cost and length of hospital stay	>10 mm, deeper T1 lesions
m-EMR	Complete/*en-bloc* resection rates comparable with ESD for smaller lesions, short procedural time, outpatient procedure	Bleeding and perforation rates are higher than standard EMR; local recurrence in lesions >10 mm for EMR-C technique	<10 mm
Low anterior resection	Complete resection	Increased morbidity	Invasion of muscularis propria
Transanal Endoscopic Microsurgery	Allows for full thickness excision, access to higher lesions in the rectum, can be used as salvage therapy	Increased morbidity	>10 mm confined to submucosa, <10 mm with invasion into muscularis propria without nodal involvement

EMR, endoscopic mucosal resection; ESD, endoscopic submucosal dissection; m-EMR, modified EMR; EMR-C, EMR with cap aspiration.

Chablaney ,*Clin Endosc*. 2017

NET CASO CLÍNICO

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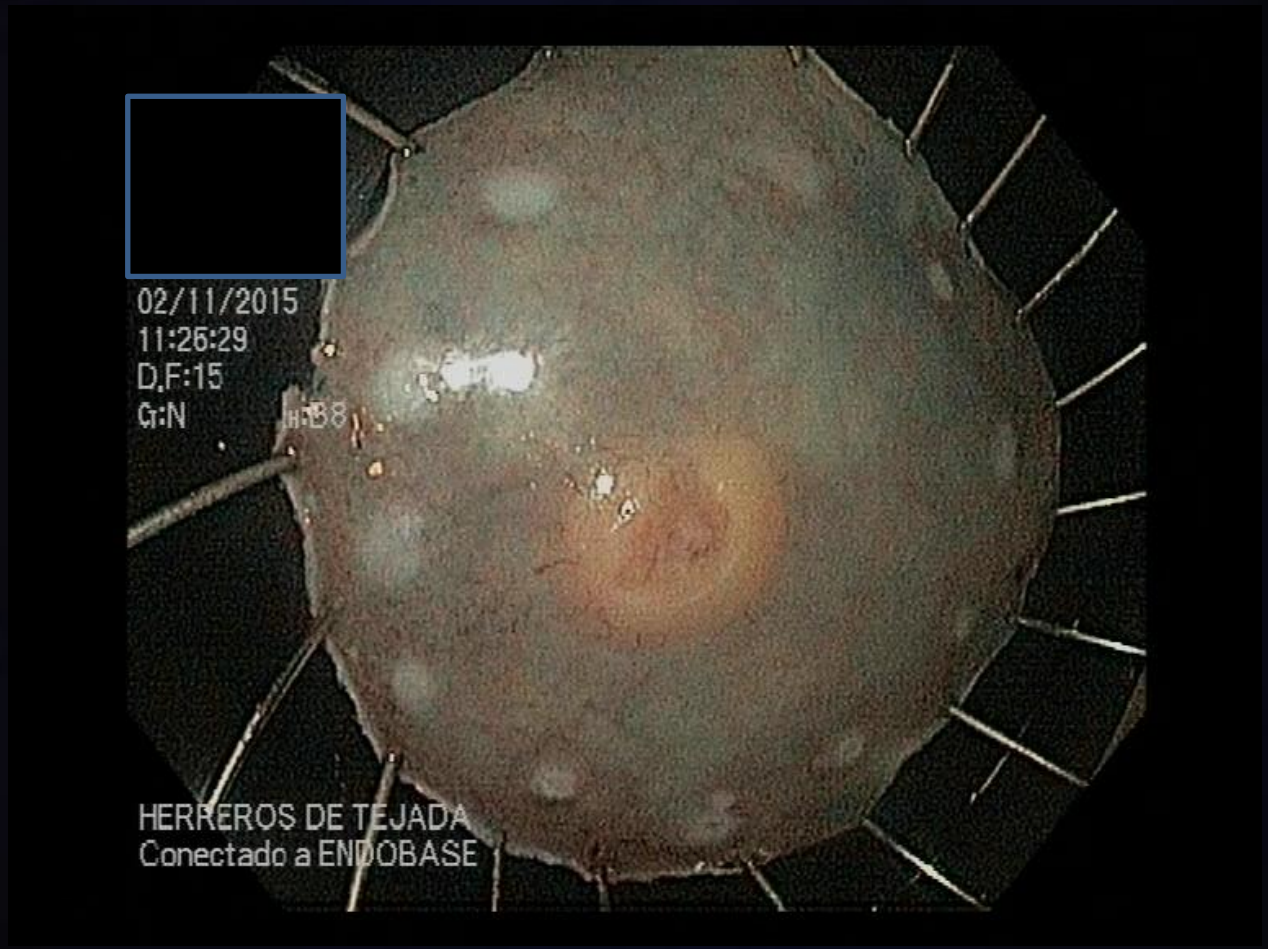
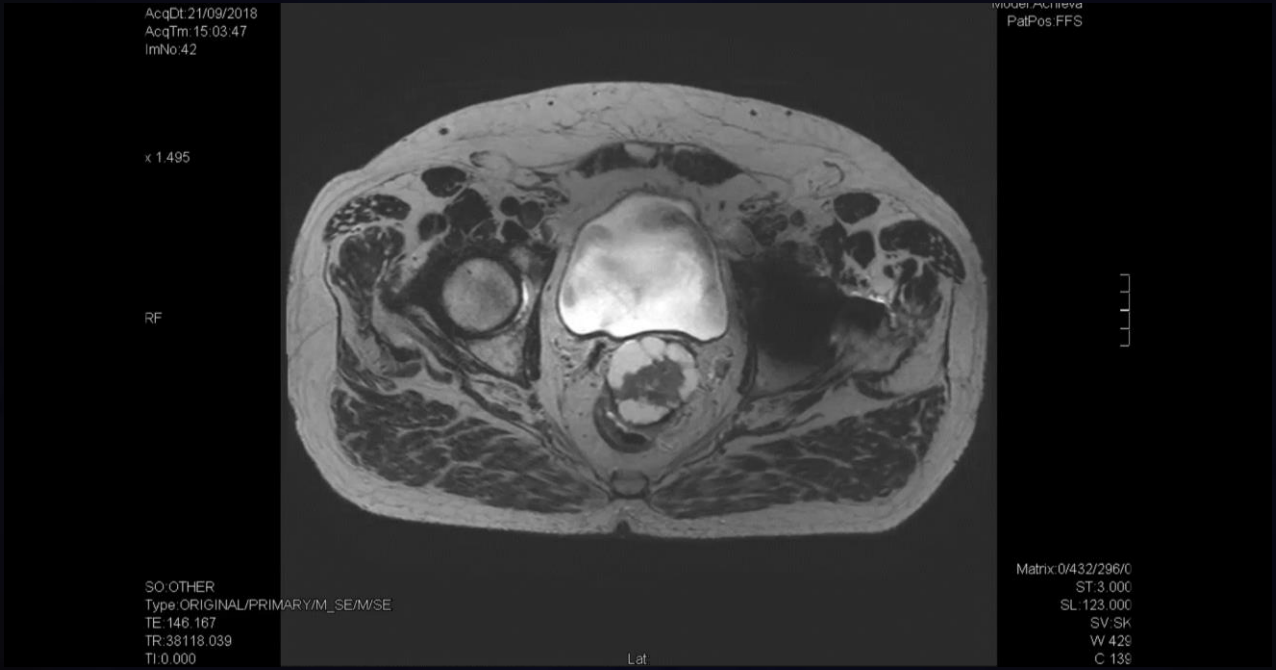
D,F:4
G:N
H:B8
HERREROS DE TEJADA
Conectado a ENDOBASE


02/11/2015
11:26:29
D.F:15
G:N
HERREROS DE TEJADA
Conectado a ENDOBASE

USE PAAF EN PATOLOGIA PERIRRECTAL

OTRAS LESIONES

LESION PARARRECTAL



Prospective Evaluation of Adverse Events Following Lower Gastrointestinal Tract EUS FNA

Michael J. Levy, MD[1], Barham K. Abu Dayyeh, MD[1], Larissa L. Fujii, MD[1], Lisa A. Boardman, MD[1], Jonathan E. Clain, MD[1], Prasad G. Iyer, MD[1], Elizabeth Rajan, MD[1], Mark D. Topazian, MD[1], Kenneth K. Wang, MD[1], Maurits J. Wiersema, MD[1] and Ferga C. Gleeson, MD[1]

Table 4. Adverse events: all patients (n=502)

Any AE	Serious grade 3–4 AE Total (mean)	Grade 1	Grade 2	Grade 3	Grade 4
103 (20.5%)	28 (5.6%)	34 (6.8%)	41 (8.2%)	23 (4.6%)	5 (1.0%)
		Bleed (n=20) Pain (n=9) Fever (n=5)	Pain (n=20) Hypotension (n=13) Bleed (n=8)	Pain (n=19) Bleed (n=2) Perforation (n=1) Appendicitis (n=1)	Pain (n=4) Bleed (n=1)

Factores asociados: Dolor previo, PAAF ditinta a GL o pared, y malignidad

Levy et al AJG 2014

COLECCIONES PELVICAS

Etiologia: EII, apendicitis, diverticulitis, colitis isquémica, enfermedad inflamatoria pelvica.

POSIBILIDAD DE DRENAJE ENDOSCOPICO POR VIA RECTAL

Table 8 Endoscopic ultrasound guided drainage of pelvic abscesses

Ref.	Number	Site	Technical success	Clinical success	Compli-cations
Hadithi *et al*[148]	8	Abdominal (pelvic)	100%	100%	0
Puri *et al*[149]	30	Pelvic (4 prostatic)	93.3%	83.5%	0
Ramesh *et al*[150]	38	11 transcolonic, 27 transrectal	100%	87%	10.5%
Puri *et al*[151]	14	Pelvic	100%	93%	0
Varadarajulu *et al*[152]	25	Pelvic	100%	96%	0
Giovannini *et al*[153]	12	Pelvic	100%	75%	25%

PROCEDIMIENTO

- Punción transmural guiado por USE (19G)
- Aspiracion / inyeccion contraste
- Bajo Rx: Guia, creacion tracto(needle knife, dilatadores, balon..) dilatar tracto, multiples 2x pigtail stents +/- Drenaje externo
- Antibiotico intra y post procedimiento (1-2 semanas)
- Seguimiento 2-4 semanas

PROCEDIMIENTO

Varadajulu, GIE 2011

COLECCIONES PELVICAS
DRENAJE ENDOSCOPICO

Endosc Ultrasound. 2017 Jul-Aug; 6(4): 217–218.
doi: 10.4103/eus.eus_46_17
PMCID: PMC55

Endoscopic ultrasound-guided drainage of pelvic abscesses with lumen-apposing metal stents

Amar Manvar, Kunal Karia, and Sammy Ho

ELSEVIER
Gastrointestinal Endoscopy
Available online 24 August 2017
In Press, Corrected Proof

Original article

EUS-guided drainage of postsurgical fluid collections using lumen-apposing metal stents: a multicenter study

Prashant R. Mudireddy MD [1], Amrita Sethi MD [2], Ali A. Siddiqui MD [3], Douglas G. Adler MD [4], Jose Nieto DO [5], Harshit Khara MD [1], Arvind Trindade MD [6], Sammy Ho MD [7], Petros C. Benias MD [6], Peter V. Draganov MD [8], Dennis Yang MD [8], Shaffer Mok MD [1], Bradley Confer DO [1], David L. Diehl MD [1]

Original article

Long-term outcome of endoscopic ultrasound-guided pelvic abscess drainage: a two-center series

Endosc Ultrasound. 2017 Mar-Apr; 6(2): 131–135.
doi: 10.4103/2303-9027.204814
PMCID: PMC5418966

Feasibility, safety, and outcomes of a single-step endoscopic ultrasonography-guided drainage of pancreatic fluid collections without fluoroscopy using a novel electrocautery-enhanced lumen-apposing, self-expanding metal stent

Joseph Yoo, Linda Yan, Raza Hasan, Saana Somalya, Jose Nieto,[1] and Ali A. Siddiqui

COLECCIONES PELVICAS
DRENAJE ENDOSCOPICO

Manvar, Endoscopic Ultrasound 2017


GRACIAS