



8 AIM / 26 au 28 Septembre 2024



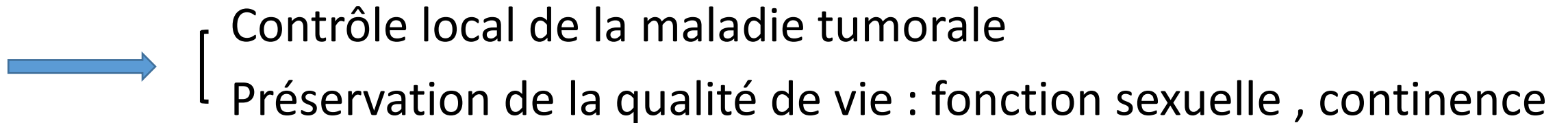
# Rôle de l'IRM mp dans la planification de la prostatectomie radicale : quelle valeur ajoutée ?

**Service de Chirurgie Urologique  
Hôpital Militaire Régional Universitaire d'Oran**

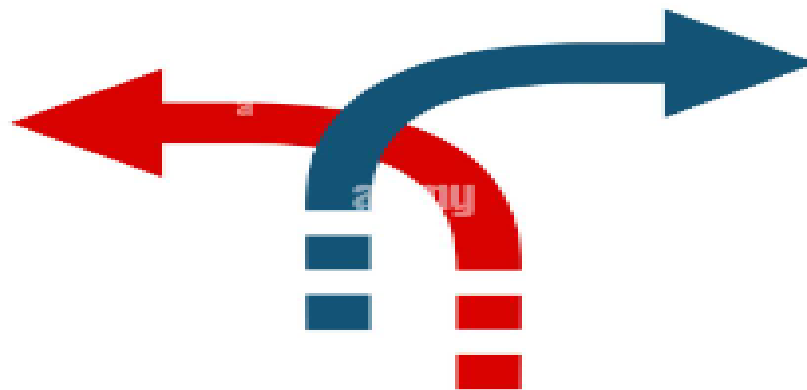
**N.BEKKI – M.HAMAL / HMRUO**

# Préambule

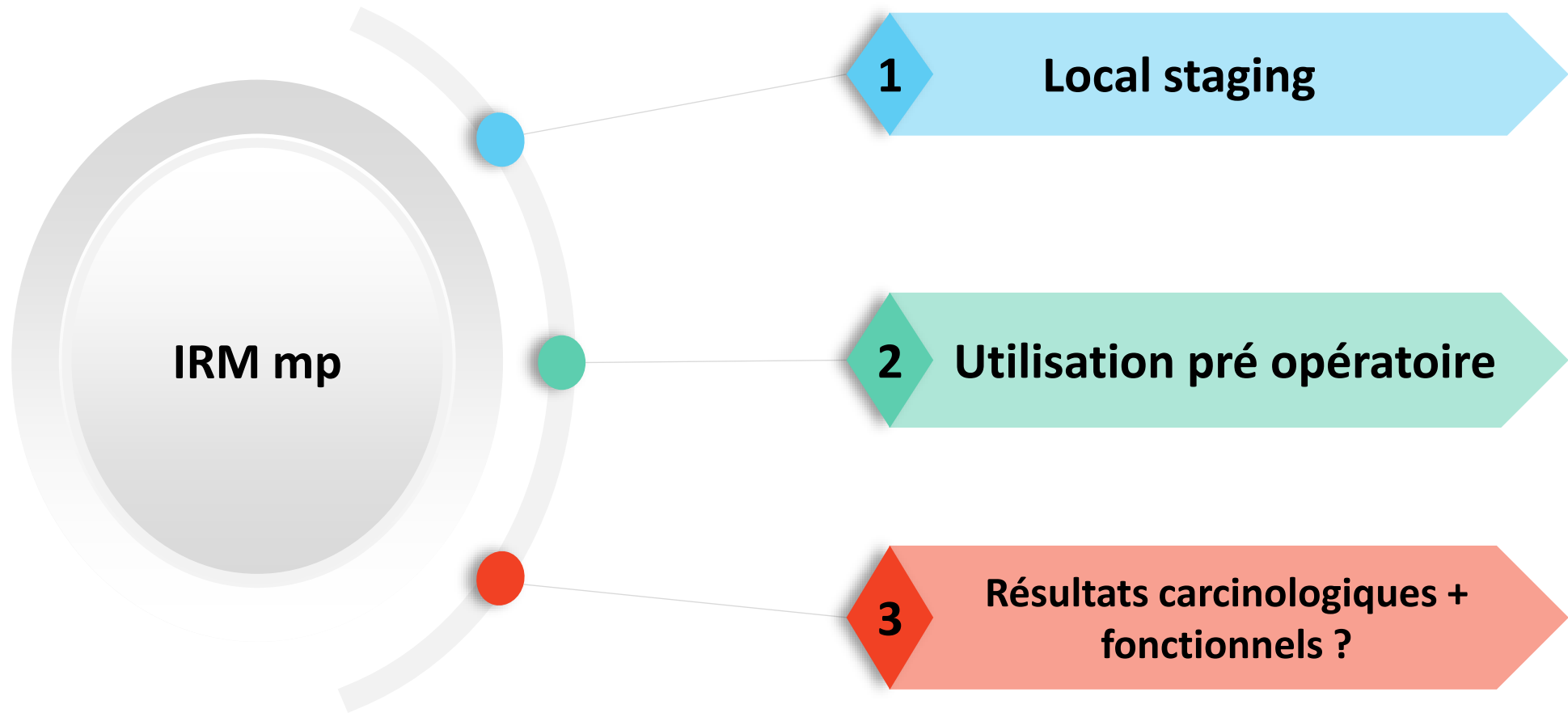
- Prostatectomie radicale : un des traitements standards du cancer de la prostate au stade localisé chez les hommes ayant une espérance de vie sup à 10 ans.



Résultats  
fonctionnels



Résultats  
carcinologiques



❑ **Utilisation de nomogrammes basés sur les données clinique**

➤ **Taux de PSA**

➤ **Score de gleason**

➤ **cT : basé sur le toucher rectal**

➤ **Nombre de carottes positives**

Recommended tool	Variables	Accuracy *	Q1	Q2	Q3
<b>BCR</b>					
CAPRA	PSA, Gleason score, Clinical stage, % positive cores, age	0.76 (863/6,737) <sup>13</sup> and 0.68 (NR/4,511) <sup>14</sup>	9/13	2/13	13/13
Stephenson pre-operative nomogram	Preoperative PSA, primary Gleason score, secondary Gleason score, Clinical stage, No. positive cores, No. negative cores	0.76 (408/1,978) <sup>15</sup> and 0.75 (NR/1976) <sup>16</sup>	5/5	1/5	5/5
<b>Metastasis</b>					
CAPRA	PSA, Gleason score, Clinical stage, % positive cores, age	0.79 (58/2937) <sup>17</sup>	1/1	0/1	1/1
<b>PCSM</b>					
D'Amico risk stratification	PSA, Gleason grade, Clinical stage	0.70 (154/7,591) <sup>18</sup>	0/1	1/1	1/1
<b>Aggressive BCR</b>					
CAPRA	PSA, Gleason score, Clinical stage, % positive cores, age	0.77 (NR/1,148) <sup>19</sup>	1/1	NA	1/1

Optimum tools for predicting clinical outcomes in prostate cancer patients undergoing radical prostatectomy: a systematic review of prognostic accuracy and validity , Clinical Genitourinary Cancer 2017

# RECTAL EXAMINATION IN VOLUME DETERMINATION OF CARCINOMA OF THE PROSTATE: CLINICAL AND ANATOMICAL CORRELATIONS

SAMUEL S. SPIGELMAN,\* JOHN E. McNEAL, FUAD S. FREIHA AND THOMAS A. STAMEY

*From the Division of Urology, Stanford University, Stanford, California*

**□ Limites :**

**Taille de la tumeur**

**Localisation**

**Rapports avec les organes de voisinages**

**TR = sous estimation de l'étendu de la tumeur**

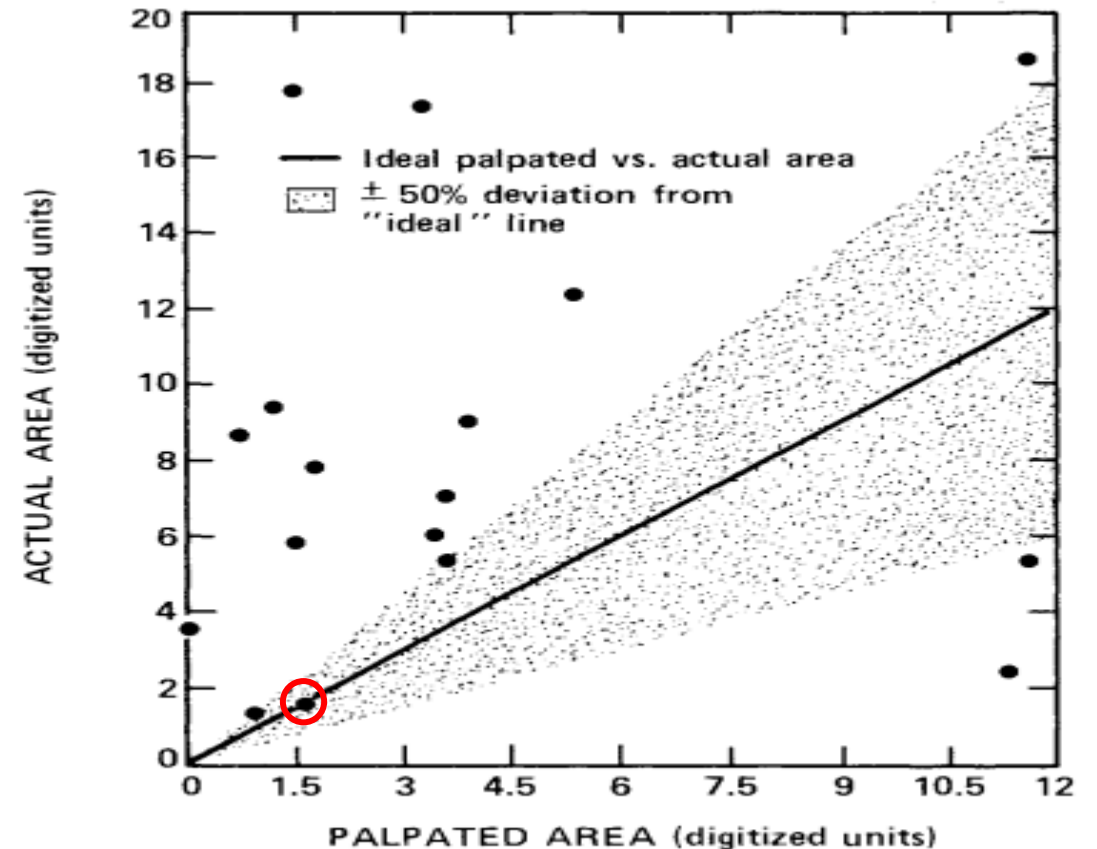


FIG. 1. Palpated versus actual area of prostatic cancer in 17 patients who underwent radical retropubic prostatectomy. Each point represents individual patient.

# Evaluation de Extension extra prostatique

- ❑ L'anomalie la plus fréquemment observée lors de l'étude anatomopathologique de la pièce de prostatectomie radicale
- ❑ Evaluation basée sur : Tables de Partin , nomogramme MSKCC (paramètres cliniques et histologiques )
- ❑ Avec l'avènement de L'IRM mp , d'autre nomogrammes ont été développés dans le but d'améliorer la prédiction de l'extension extra prostatique

## Multiparametric MRI Improves Accuracy of Clinical Nomograms for Predicting Extracapsular Extension of Prostate Cancer

Tom S. Feng, Ali Reza Sharif-Afshar, Jonathan Wu, Quanlin Li, Daniel Luthringer, Rola Saouaf, and Hyung L. Kim

N= 112 patients

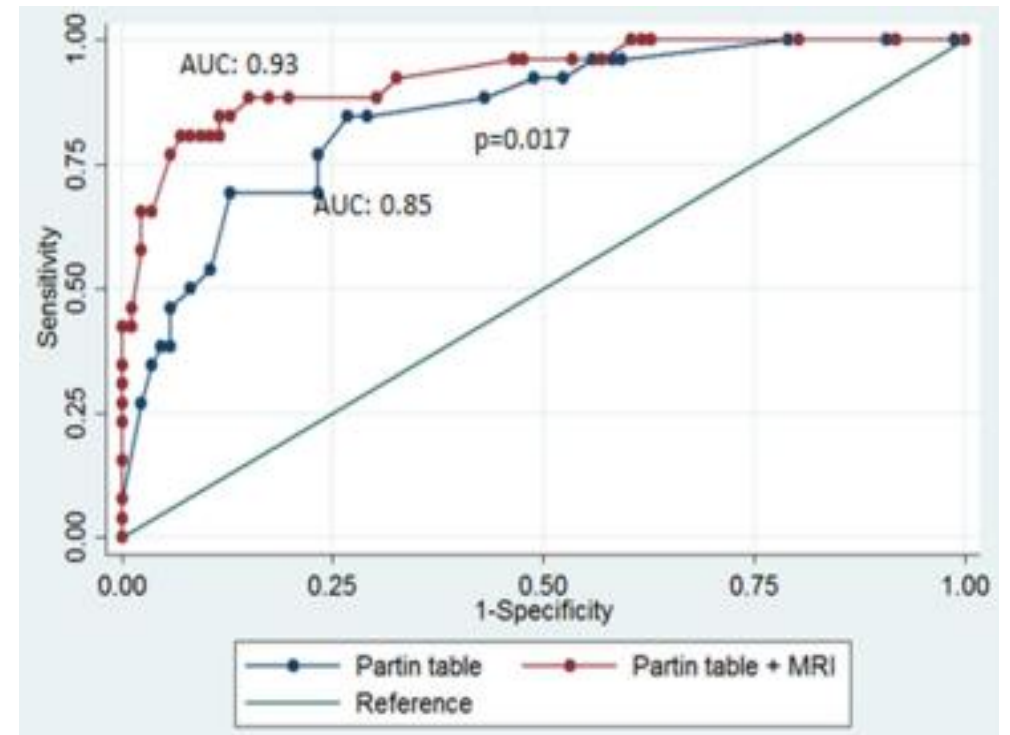
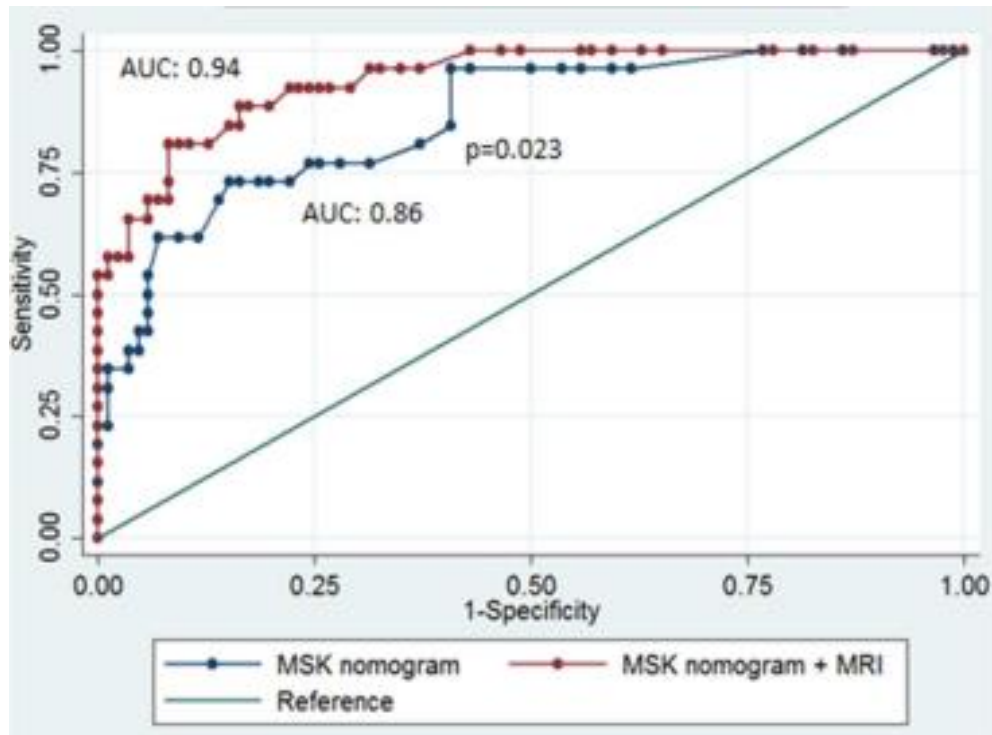
IRM mp 3T

Prostatectomie radicale

Augmentation de l'aire sous la courbe de :

0,08 pour les tables de partin

0,08 pole nomogramme MSKCC



Original article

## Apparent diffusion coefficient in the evaluation of side-specific extracapsular extension in prostate cancer: Development and external validation of a nomogram of clinical use

Francesco Giganti, M.D.<sup>a,b,\*</sup>, Andrea Coppola, M.D.<sup>a,1</sup>, Alessandro Ambrosi, Ph.D.<sup>b</sup>, ...

Étude multicentrique

N=101 patients

IRM mp 1,5T

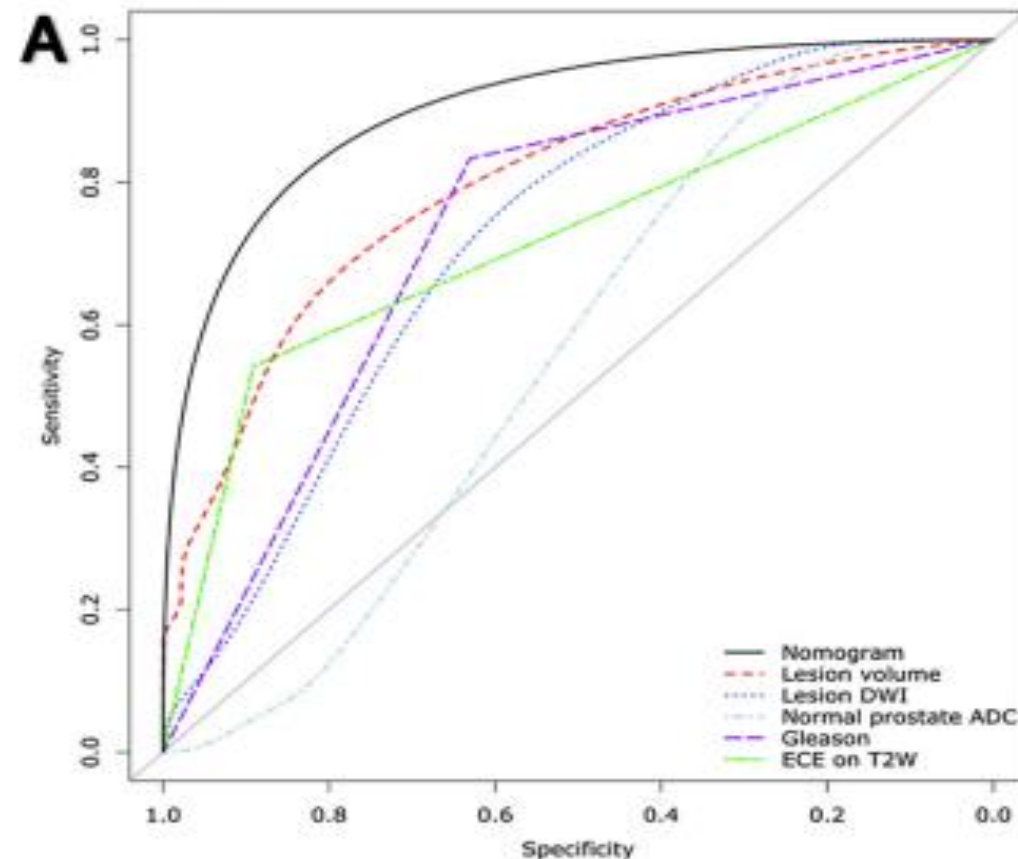
Gleason biopsique

Valeur ADC de la lésion index

Volume tumoral à l'IRM

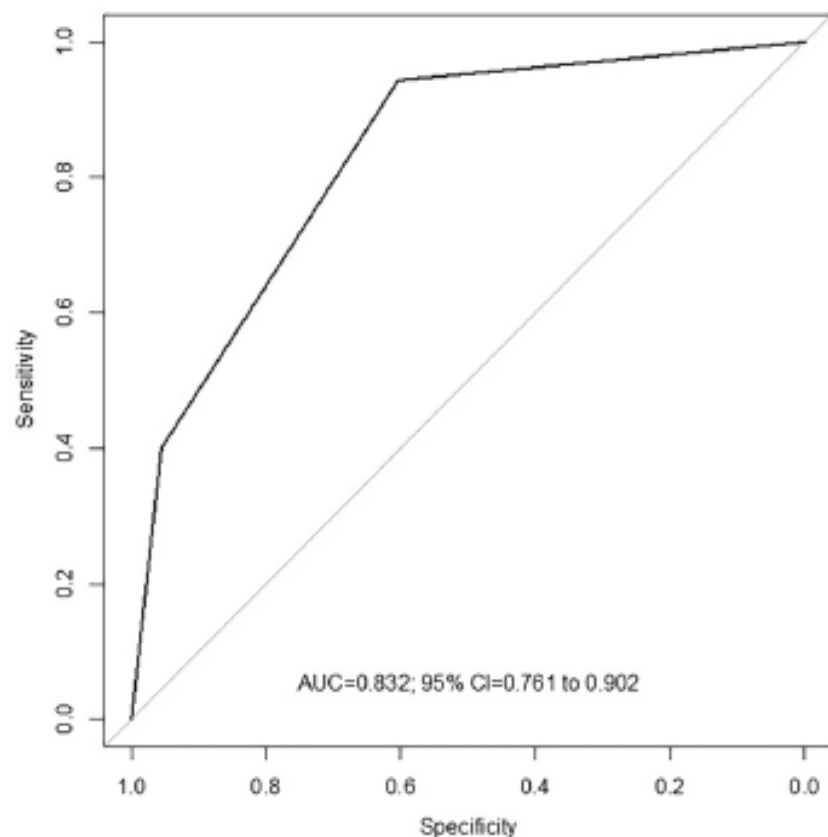
Prédicteurs d'ECE

Nomogramme : Sensibilité : 88%



# Defining the role of multiparametric MRI in predicting prostate cancer extracapsular extension

Francesco Sanguedolce<sup>4,5,6</sup> · Alessandro Tedde<sup>4,5</sup> · Luisa Granados<sup>3</sup> · Jonathan Hernández<sup>3</sup> · Jorge Robalino<sup>5</sup> · Edgar Suquilanda<sup>5</sup> · Matteo Tedde<sup>2</sup> · Joan Palou<sup>1,6</sup> · Alberto Breda<sup>5,6</sup>



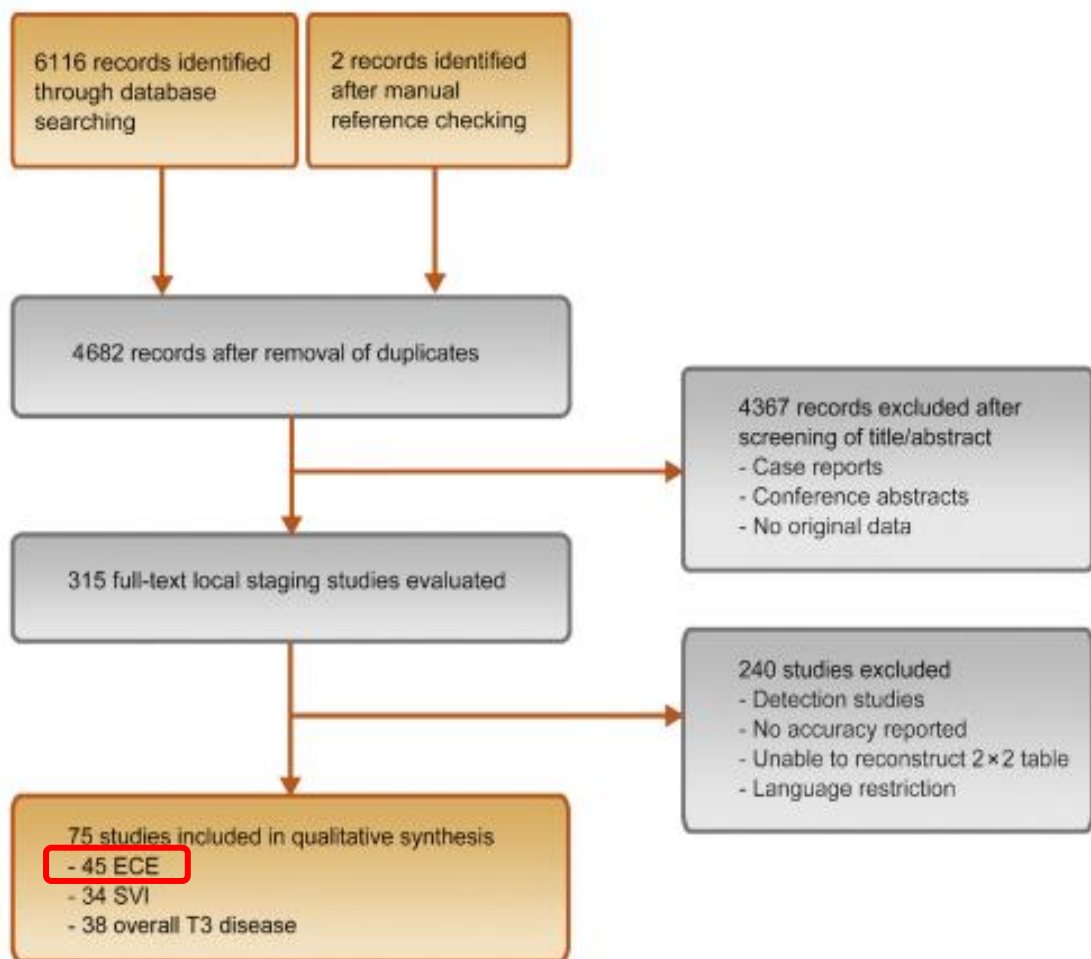
ROC= receiver operating characteristic; AUC = area under the curve; CI = confidence interval

**Table 3** Logistic Regression for ECE

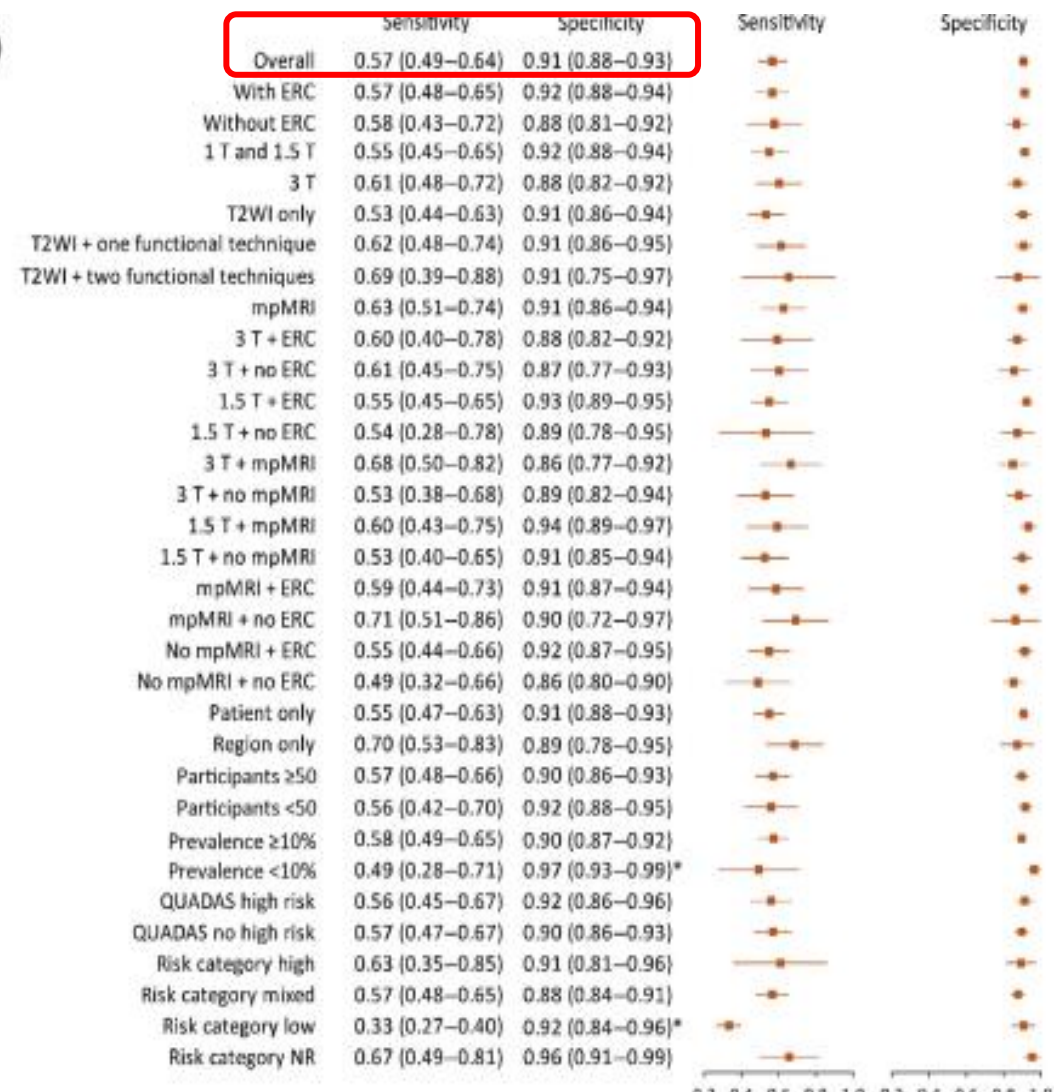
	Univariate			Multivariate			Multivariate*		
	OR	95% CI	<i>p</i> value	OR	95% CI	<i>p</i> value	OR	95% CI	<i>p</i> value
<b>Clinical stage</b>									
T1	Ref	–	<b>0.002</b>	Ref	–	0.971			
T2+T3	3.72	1.65–8.58		1.02	0.31–3.22				
<b>PSA density (ng/ml<sup>2</sup>)</b>									
≤ 0.15	Ref	–	<b>0.003</b>	Ref	–	0.406			
> 0.15	4.16	1.71–11.29		1.75	0.48–6.97				
<b>Max length core (mm)</b>									
≤ 5.5	Ref	–	<b>&lt;0.001</b>	Ref	–	0.096			
> 5.5	5.93	2.57–14.55		2.85	0.85–10.36				
<b>IPNI</b>									
No	Ref	–	<b>&lt;0.001</b>	Ref	–	<b>0.001</b>	Ref	–	<b>&lt;0.001</b>
Yes	8.61	3.31–22.37		10.24	2.57–40.85		8.17	2.78–26.32	
<b>ISUP grade at biopsy</b>									
≤ 3	Ref	–	<b>&lt;0.001</b>	Ref	–	0.078			
> 3	4.39	1.93–10.66		2.81	0.91–9.37				
<b>LCI (mm)</b>									
≤ 9.5	Ref	–	<b>&lt;0.001</b>	Ref	–	<b>0.002</b>	Ref	–	<b>&lt;0.001</b>
> 9.5	11.61	4.41–36.77		14.34	2.87–95.10		11.09	3.91–38.18	
<b>ILS at MRI (mm)</b>									
≤ 11	Ref	–	<b>&lt;0.001</b>	Ref	–	0.673			
> 11	8.86	3.38–27.96		0.69	0.12–3.81				

# Accuracy of Magnetic Resonance Imaging for Local Staging of Prostate Cancer: A Diagnostic Meta-analysis

Maarten de Rooij\*, Esther H.J. Hamoen, J. Alfred Witjes, Jelle O. Barentsz,

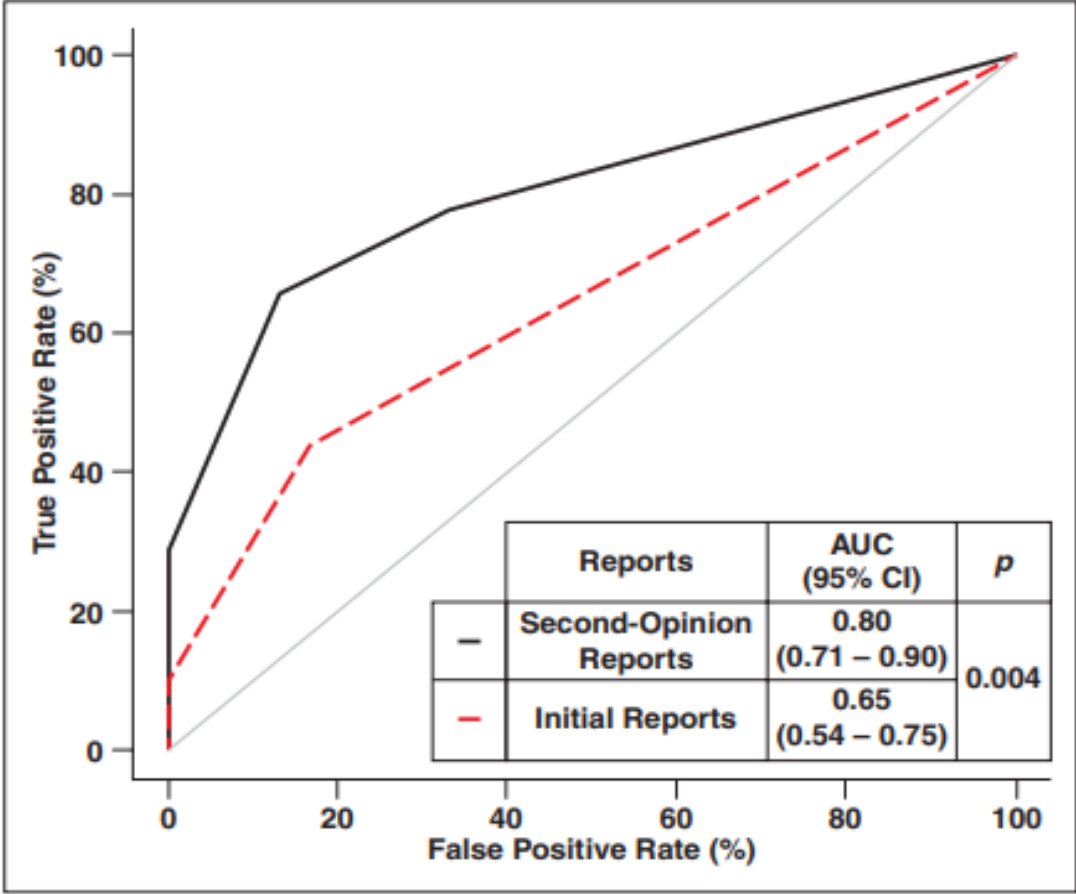
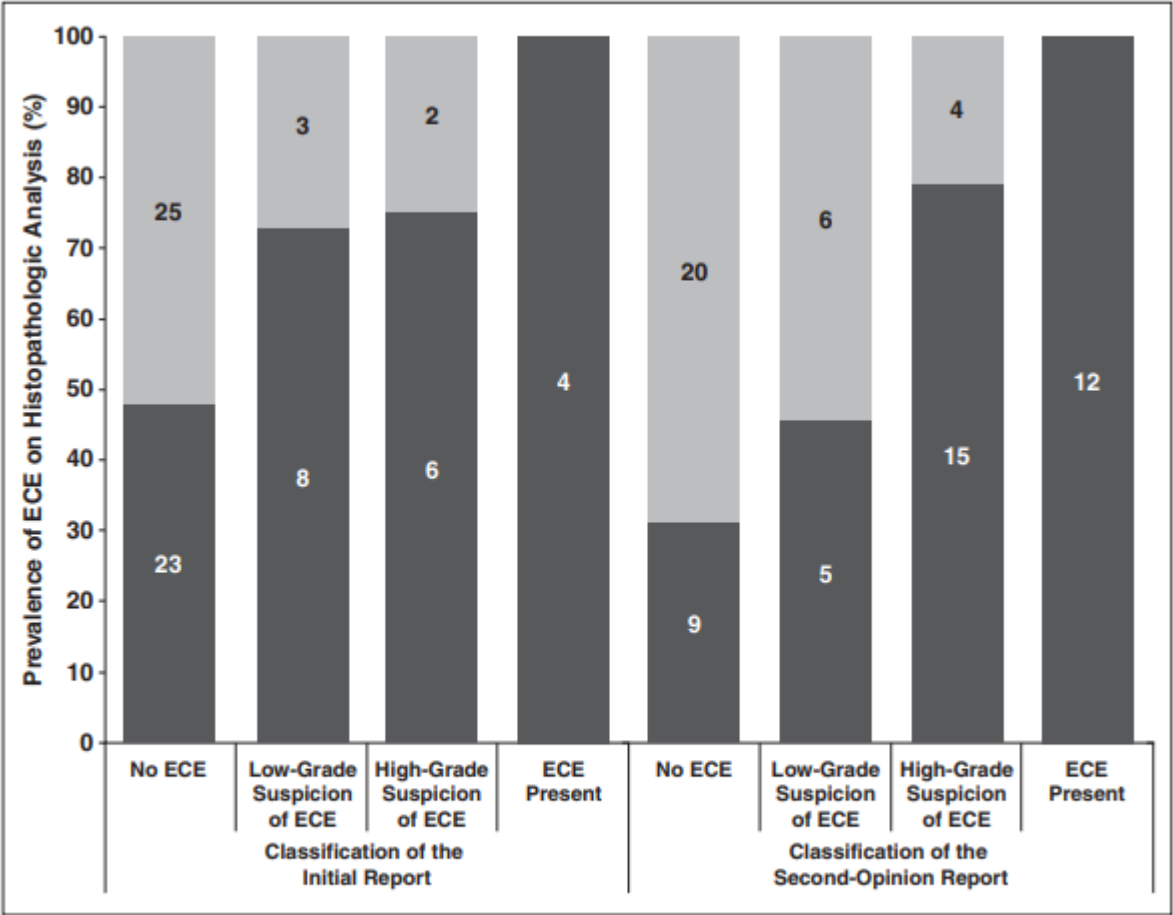


(A)



## ❑ Limites de L'IRM seule pour la prédiction de l'ECE:

- Extension focale , minime ou microscopique
- Les tumeurs de petites tailles.
- Score de PIRADS faible



**Fig. 3**—Prevalence of extracapsular extension (ECE) on histopathologic analysis for each category of classification system for initial reports (*left*) and second-opinion reports (*right*). Dark and light gray bars indicate proportions of patients with and without ECE on histopathology, respectively. Numbers in bars are absolute numbers of patients.

Diagnosis of Extracapsular Extension of Prostate Cancer on Prostate MRI: Impact of Second-Opinion Readings by Subspecialized Genitourinary Oncologic Radiologists, AJR:205, July 2015

- ❑ L'IRM de la prostate à elle seule, y compris les scores d'évaluation (EPE,ESUR,LIKERT) ne permettent pas de prédire de manière précise l'ECE.
- ❑ Les données de L'IRM doivent être combinées aux données cliniques et surtout histologiques de la biopsie prostatique afin d'améliorer la prédiction de l'ECE.
- ❑ Il est nécessaire d'avoir des radiologues avec formation spécialisée et une expérience dans l'interprétation des examens IRM de la prostate , afin d'améliorer la prédiction de l'extension extra prostatique.

# Evaluation de l'atteinte des vésicules séminales

- ❑ Tables de Partin , nomogramme de KATTAN: **sensibilité limitée +++++++**
- ❑ Incorporation de l'IRM : **résultats meilleurs**

**N=527 patients**  
**IRM 3T pré opératoire**  
**RARP**  
**Sensibilité=76%**  
**Spécificité = 94,7%**  
**VPP = 62%**  
**VPN = 97**

Research article

## Seminal vesicle invasion on multi-parametric magnetic resonance imaging: Correlation with histopathology

Nikolaos Grivas<sup>a,\*</sup>, Karel Hinnen<sup>b</sup>, Jeroen de Jong<sup>c</sup>, Wilma Heemsbergen<sup>d</sup>, Luc Moonen<sup>d</sup>,  
Thelma Witteveen<sup>d</sup>, Henk van der Poel<sup>a</sup>, Stijn Heijmink<sup>e</sup>

<sup>a</sup> Department of Urology, The Netherlands Cancer Institute-Antoni van Leeuwenhoek Hospital, Amsterdam, The Netherlands

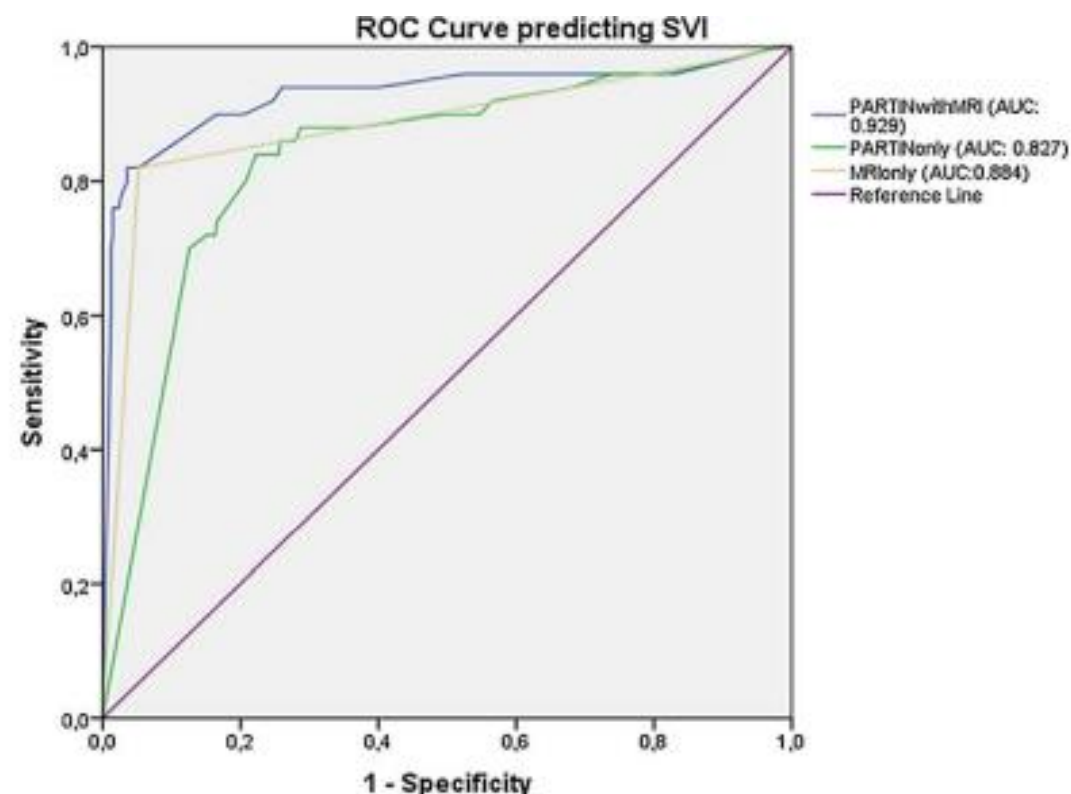


**Table 5**

AUCs for the prediction models of seminal vesical invasion.

Model	AUC	95% CI	
Partin only	0.837	0.775	0.899
MRI only	0.884	0.82	0.947
Partin with MRI	0.929	0.876	0.981

AUC, area under the curve; CI, confidence interval; MRI, magnetic resonance imaging.



**Fig. 2.** Receiver operating characteristic (ROC) curves for seminal vesicle invasion (SVI) prediction.

# Multiparametric magnetic resonance imaging for pre-treatment local staging of prostate cancer: A Cancer Care Ontario clinical practice guideline

Jennifer Salerno, PhD;<sup>1</sup> Antonio Finelli, MD;<sup>2</sup> Chris Morash, MD;<sup>3</sup> Scott C. Morgan, MD;<sup>3</sup> Nicholas Power, MD;<sup>4</sup> Nichola Schieda, MD;<sup>5</sup> Masoom A. Haider, MD<sup>6</sup>

<sup>1</sup>McMaster University, Department of Oncology and Program in Evidence-Based Care, Cancer Care Ontario, Hamilton, ON, Canada; <sup>2</sup>Princess Margaret Hospital, Toronto, ON, Canada; <sup>3</sup>The Ottawa Hospital,

**Table 2. Summary of diagnostic accuracy**

Current guideline	No. studies	Sensitivity			Specificity			
		Median	Min	Max	No. studies	Median	Min	Max
ER use								
≥1.5 T for EPE	16	50.0	14.0	90.0	16	91.0	74.0	98.0
≥1.5 T for SVI	13	50.0	34.9	97.0	15	96.0	83.1	100.0
No ER use								
1.5 T (tumour, EPE, SVI)	9	36.2	0	81.3	9	90.3	65.0	97.7
3 T (tumour, EPE, SVI)	13	58.3	22.0	92.0	13	86.6	55.2	99.0
De Rooij et al (2015)	No. studies	Estimate	95% CI		No. studies	Estimate	95% CI	
EPE	45	0.57	0.49-0.64		45	0.91	0.88-0.93	
SVI	34	0.58	0.47-0.68		34	0.96	0.95-0.97	
Stage T3	38	0.61	0.54-0.67		38	0.88	0.85-0.91	

CI: confidence interval; EPE: extraprostatic extension; ER: endorectal coil; SVI: seminal vesicle invasion; T: Tesla.

❑ Sensibilité faible , spécificité élevée

❑ Prédiction supérieure aux nomogrammes cliniques traditionnels

❑ Moyen fiable pour prédire l'atteinte des VS surtout en association avec les données cliniques et histologiques de la biopsie

# Evaluation de l'atteinte des ganglions régionaux

## □ Curage ganglionnaire étendu :

- Evaluation fiable
- Indication : basée sur des nomogrammes
- Invasif
- Morbidité ++

## Territoires :

ilio-obturateur

Iliaque externe ,Iliaque interne jusqu'à la bifurcation iliaque

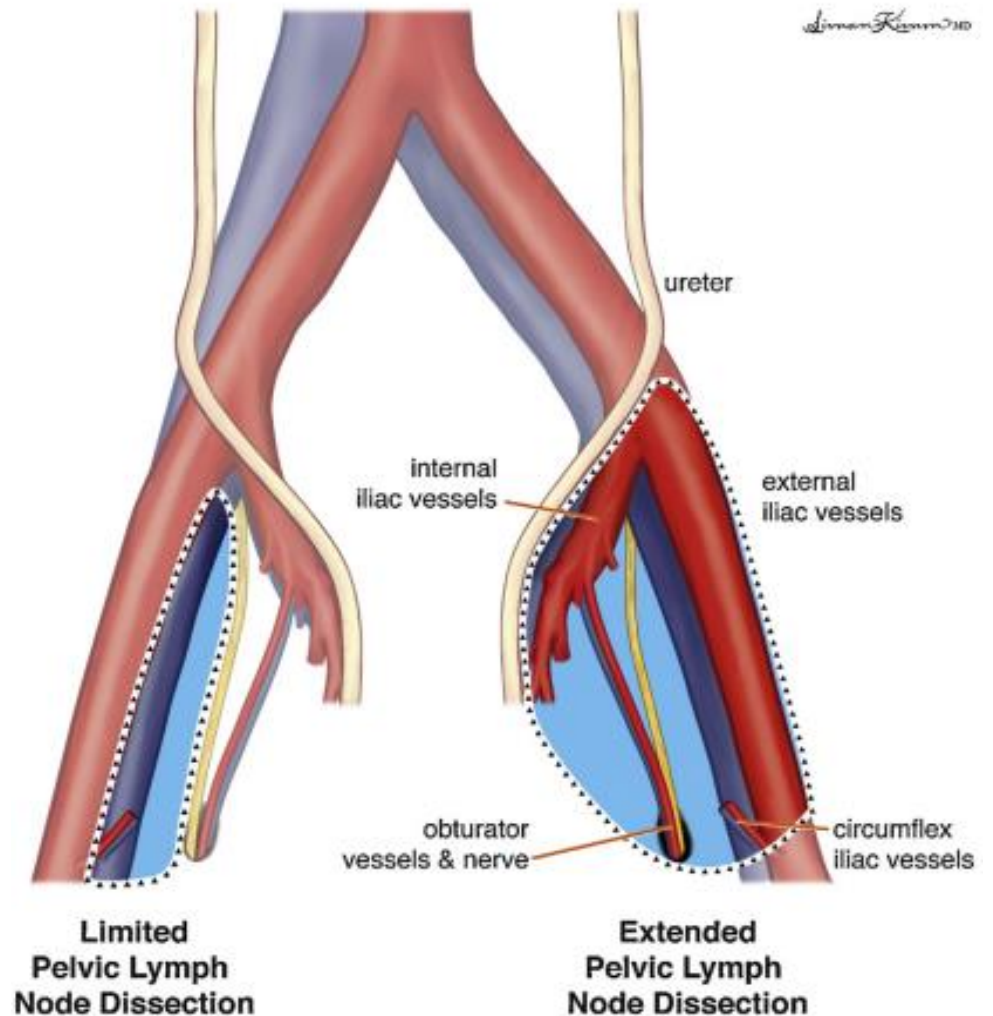
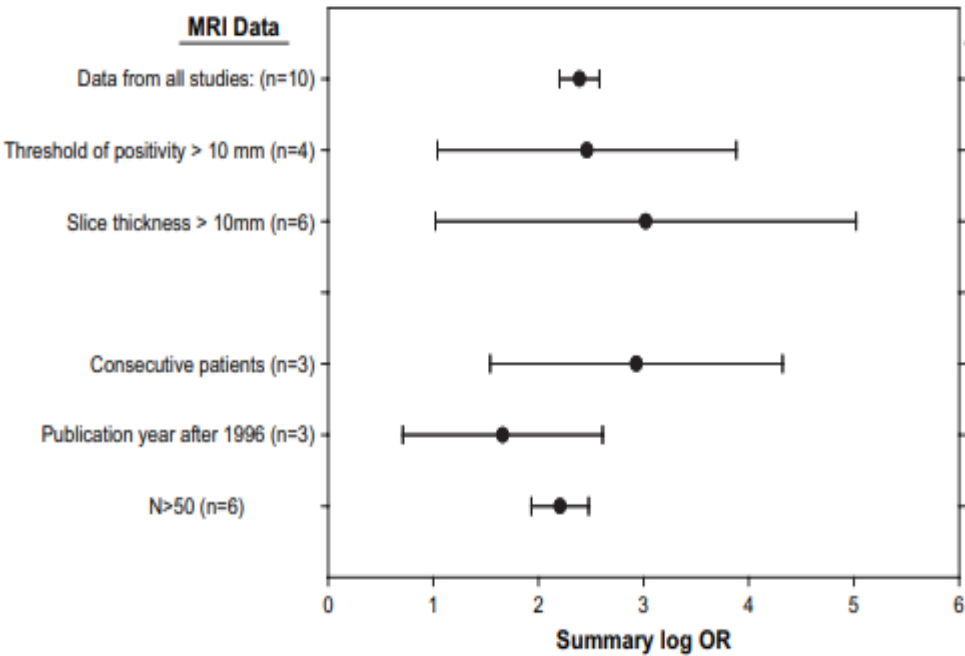


Fig. 3 - Template of dissection for extended pelvic lymphadenectomy.




**Table 2** Sensitivity, specificity, and diagnostic odds ratio of included studies on the performance of computed tomography (CT) and magnetic resonance imaging (MRI)

First author	Publication year	N	Sensitivity	Specificity	DOR
<b>CT</b>					
Benson <sup>15</sup>	1981	23	50%(1/2)	66%(14/21)	1.93
Golimbu <sup>16</sup>	1981	46	31%(5/17)	92%(27/29)	4.84
Levine <sup>17</sup>	1981	16	94%(7/7)	83%(7/8)	75
Morgan <sup>18</sup>	1981	9	36%(2/6)	95%(10/10)	11.67
Giri <sup>19</sup>	1982	12	75%(4/5)	81%(6/7)	13
Emory <sup>20</sup>	1983	27	27%(3/12)	97%(15/15)	11.42
Sawczuk <sup>21</sup>	1983	8	25%(1/5)	88%(3/3)	2.33
Weinermann <sup>22</sup>	1983	19	68%(7/10)	75%(7/9)	6.43
Flanigan <sup>23</sup>	1985	35	50%(3/6)	98%(29/29)	0.29
Mukamel <sup>24</sup>	1986	10	50%(0/0)	59%(6/10)	1.44
Biondetti <sup>25</sup>	1987	7	83%(2/2)	92%(5/5)	55
Hricak <sup>26</sup>	1987	85	25%(2/9)	99%(76/76)	51
Platt <sup>27</sup>	1987	32	8%(0/5)	95%(26/27)	0.07
Engeler <sup>28</sup>	1992	160	5%(2/47)	100%(113/113)	12.47
Van Poppel <sup>29</sup>	1994	285	77%(35/45)	96%(232/240)	92.48
Flanigan <sup>30</sup>	1996	173	27%(3/12)	97%(156/161)	10.48
Rorvik <sup>31</sup>	1998	64	28%(2/8)	97%(44/45)	11.41
Borley <sup>32</sup>	2003	13	5%(0/9)	90%(4/4)	0.47
<b>MRI</b>					
Mukamel <sup>24</sup>	1986	10	25%(0/1)	65%(6/9)	0.62
Biondetti <sup>25</sup>	1987	29	83%(2/2)	97%(16/16)	165
Hricak <sup>26</sup>	1987	85	45%(4/9)	99%(76/76)	125.18
Bezzi <sup>33</sup>	1988	51	68%(9/13)	94%(36/38)	30.82
Rifkin <sup>34</sup>	1990	185	6%(1/23)	95%(155/162)	1.38
Kier <sup>35</sup>	1993	27	17%(0/2)	90%(23/25)	1.88
Jager <sup>6</sup>	1996	63	59%(9/15)	97%(47/48)	46.28
Perotti <sup>36</sup>	1996	56	13%(0/3)	90%(48/53)	1.26
Borley <sup>32</sup>	2003	42	29%(3/11)	98%(31/31)	25.94
Harisinghani <sup>37</sup>	2003	80	46%(15/33)	78%(37/47)	2.99

N is the number of patients who fulfilled the inclusion criteria. In the original report N may be larger. Sensitivity and specificity are calculated from these numbers and conventional correction was applied by adding 0.5 to each cell in the 2 × 2 tables to prevent division by zero. DOR, diagnostic odds ratio.

The diagnostic accuracy of CT and MRI in the staging of pelvic lymph nodes in patients with prostate cancer: a meta-analysis, *Clinical Radiology* (2008) 63, 387e395

# Preoperative multiparametric MRI of the prostate for the prediction of lymph node metastases in prostate cancer patients treated with extended pelvic lymph node dissection

Giorgio Brembilla<sup>1,2</sup>  · Paolo Dell'Oglio<sup>2,3</sup> · Armando Stabile<sup>2,3</sup> · Alessandro Ambrosi<sup>4</sup> · Giulia Cristel<sup>1,2</sup> ·

**Table 5.** Prevalence of LN metastases according to T-Stage and Tumour Volume at preoperative MRI

MRI T-stage (mrT)		p <0.001
MrT2	3/66 (4.5%)	
MrT3	20/35 (57.1%)	
MrT3a	8/22 (36.4%)	
MrT3b	12/13 (92.3%)	
Tumour Volume (mrV)		p <0.001
< 1cc	2/69 (2.9%)	
≥ 1cc	19/22 (86.4%)	
MRI T-Stage and Tumour Volume		p < 0.001
mrT2 and mrV < 1cc	1/56 (1.8)	
mrT3 and mrV ≥ 1cc	19/22 (86.4%)	

**Table 4.** Multivariate logistic regression analysis

Parameter	LogOR	SE	P value
PSA, ng/ml	1.54	0.93	0.096
Primary Gleason grade	1.7	0.94	0.070
Tumour Volume, cc	3.31	1.01	0.001
MRI stage			
T3a	2.21	0.97	0.023
T3b	4.35	1.47	0.003
Multivariable model AUC*		0.956	

\*Sensitivity, specificity, PPV and NPV of the model = 82.6%, 96.2%, 86.4%, and 94.9%

# Etude multicentrique

N=497 patients

IRM mp

Biopsie systématique + ciblée

RP+ ePLND ( cutt of :15 ganglions )

AUC=0,86 du nomogramme

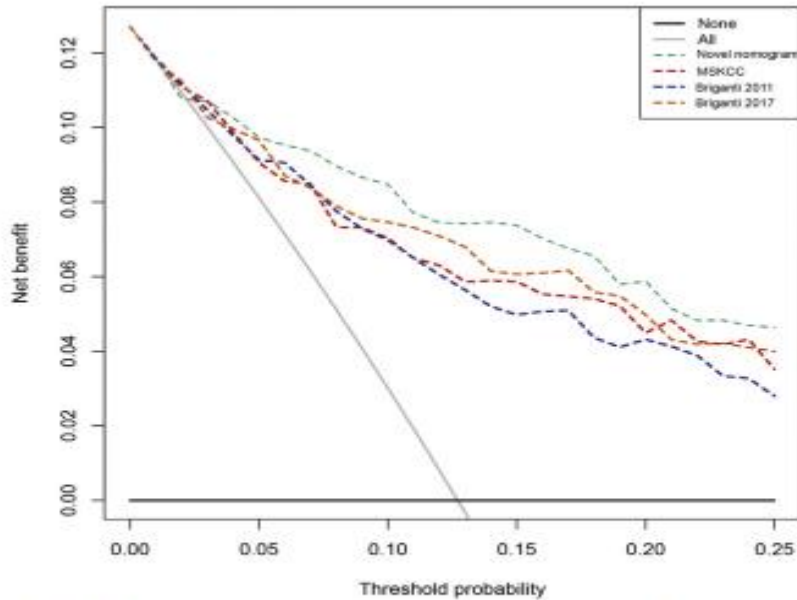


Fig. 2 – Decision curve analysis demonstrating the net benefit associated with use of the novel nomogram for detection of lymph node invasion in comparison to currently available tools (Briganti 2012 [5], Briganti 2017 [15], and MSKCC [6] nomograms).

## Prostate Cancer

### A Novel Nomogram to Identify Candidates for Extended Pelvic Lymph Node Dissection Among Patients with Clinically Localized Prostate Cancer Diagnosed with Magnetic Resonance Imaging-targeted and Systematic Biopsies

Giorgio Gandaglia<sup>a</sup>, Guillaume Ploussard<sup>b</sup>, Massimo Valerio<sup>c</sup>, Agostino Mattei<sup>d</sup>, Cristian Fiori<sup>e</sup>,

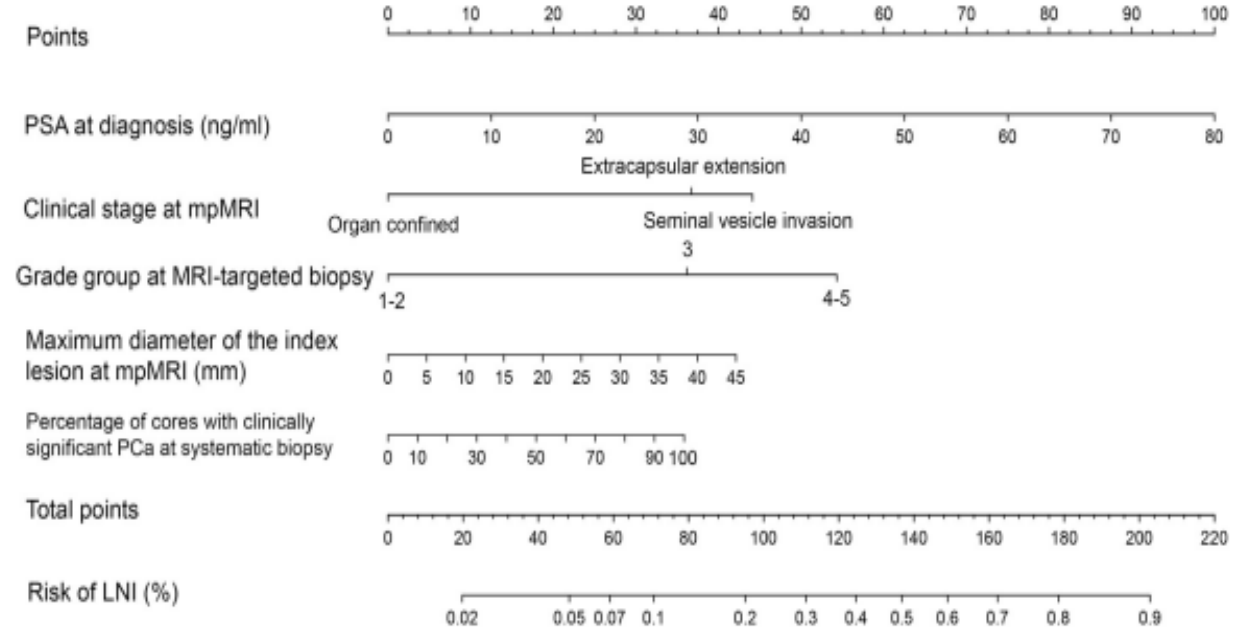


Fig. 1 – Novel nomogram predicting the probability of lymph node invasion (LNI) for patients diagnosed via targeted biopsies and treated with radical prostatectomy and extended pelvic lymph node dissection. mpMRI = multiparametric magnetic resonance imaging; PCa = prostate cancer; PSA = prostate-specific antigen.

# Impact de l'IRM mp pré opératoire sur l'état de marges chirurgicales

□ Siège des marges chirurgicales positives:

Région postéro latérale

Apex prostatique +++++

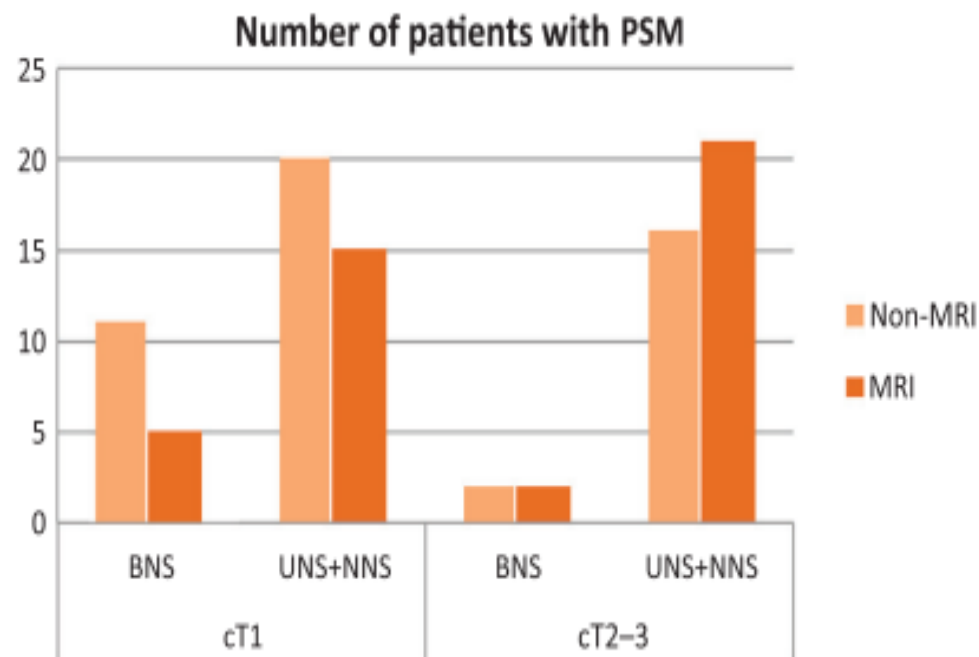
PSMs	Patients, n	PSM, n
Pathological stage		
pT2	59 (70.2%)	7 (11.9%)
pT3a	21 (25.0%)	9 (42.9%)
pT3b	4 (4.8%)	2 (50.0%)
Gleason score		
<6	6 (7.1%)	0 (-)
7	56 (66.7%)	13 (23.2%)
8-10	22 (26.2%)	5 (22.8%)
Location		
Apex		15 (83.3%)
Posterolateral		1 (5.6%)
Anterior		1 (5.6%)
Base		1 (5.6%)
Total	84	18 (21.4%)

N=438 patients

Groupe MRI mp pré op =216

Groupe témoin = 222

Objectif principal : évaluation de la différence des taux de MC+ entre les deux groupes



Prostate Cancer


## Does Preoperative Magnetic Resonance Imaging Reduce the Rate of Positive Surgical Margins at Radical Prostatectomy in a Randomised Clinical Trial?

Erik Rud<sup>a,b,\*</sup>, Eduard Baco<sup>c</sup>, Dagmar Klotz<sup>d</sup>, Kristin Rennesund<sup>c</sup>, Aud Svindland<sup>d,b</sup>,

Table 4 – Rate of positive surgical margins in the non-magnetic resonance imaging (MRI) and MRI groups

	Non-MRI (n = 216)			MRI (n = 222)			p	OR	95% CI	*p
	Total, n	PSM, n	%	Total, n	PSM, n	%				
All patients	216	49	23	222	43	19	0.4	0.81	0.5-1.3	
DRE										0.029
cT1	114	31	27	125	20	16	0.035	0.51	0.3-0.9	
cT2-3	102	18	18	97	23	24	0.3	1.53	0.7-2.9	
D'Amico risk classification							0.8 <sup>*</sup>			0.8
Low	55	7	13	57	3	5.3		0.38	0.1-1.6	
Medium	103	24	23	114	25	22		0.93	0.5-1.7	
High	58	18	31	51	15	29		0.41	0.4-2.1	
pT stage							0.7 <sup>*</sup>			0.7
2	111	9	8.1	103	5	4.9		0.58	0.2-1.8	
3	105	40	38	119	38	32		0.76	0.4-1.3	
Gleason score in specimen							0.8 <sup>*</sup>			0.8
6	59	9	15	57	7	12		0.78	0.3-2.3	
7a	83	17	20	87	14	16		0.75	0.3-1.6	
7b	44	11	25	48	14	29		1.21	0.5-3.1	
8	23	9	39	22	6	27		0.58	0.2-2.1	
9	7	3	43	8	2	25		0.44	0.1-4.0	

# Clinical utility of MRI in the decision-making process before radical prostatectomy: Systematic review and meta-analysis

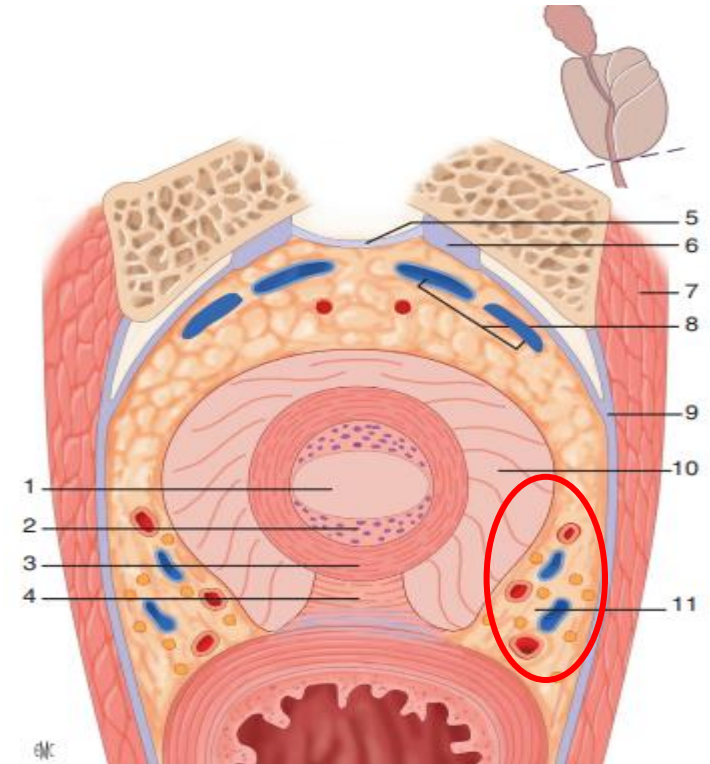
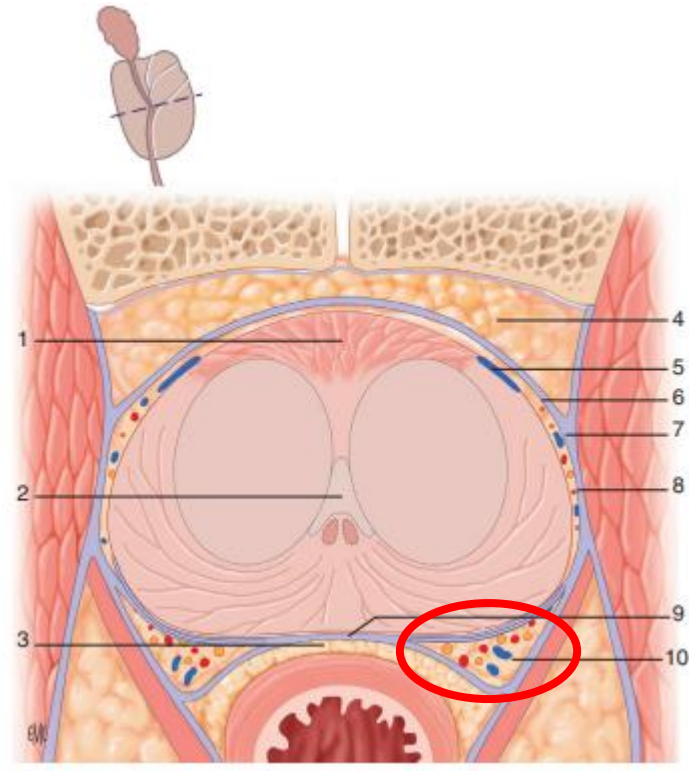
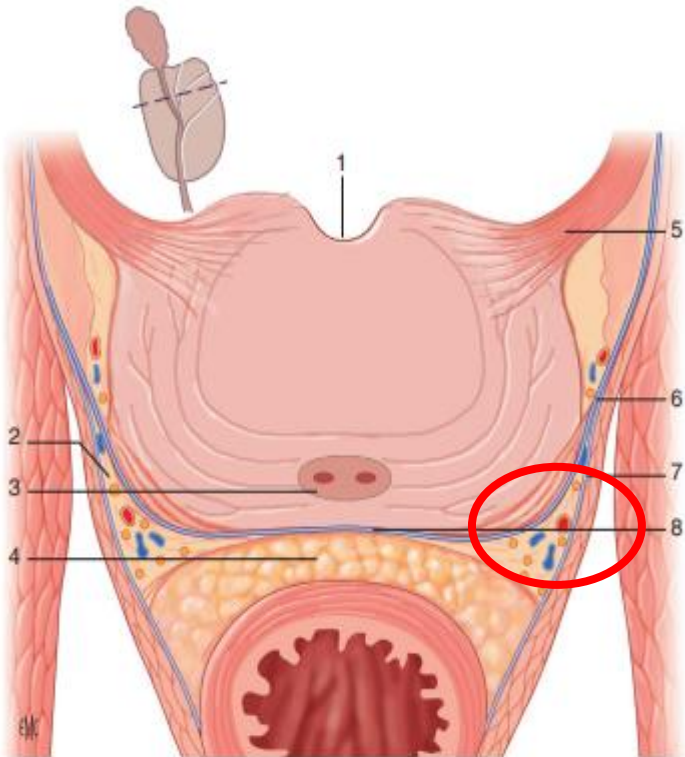
Mieszko Kozikowski \*, Wojciech Malewski, Wojciech Michalak, Jakub Dobruch

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Table 3. Data extracted from eligible studies for meta-analysis.

Study	Decision on NVB-sparing				NVB-sparing technique					PSM
	First author	Decision unchanged	Decision changed	More aggressive NVB resection	More preserving NVB-sparing	Any NVB-sparing	Bilateral NVB-sparing	Unilateral NVB-sparing	Partial NVB-sparing	
H. Hricak [10]	61% NVB*	39% NVB*	25% NVB*	14% NVB*	83% NVB*	-	-	19% NVB	17% NVB	-
A.P. Labanaris [11]	66%	44%	15%	29%	79%	77%	1%	-	16%	-
T.D. McClure [12]	73%	27%	11%	17%	85% NVB*	-	-	-	15% NVB*	7%
V. Panebianco [13]	70%	30%	30%	0%	91%	74%	17%	-	9%	8%
B.H. Park [14]	74%	26%	11%	15%	78%	57%	21%	-	22%	13%
E. Rud [8]	63%	27%	27%	0%	31% NVB	9%	11%	11%	69% NVB*	19%
J.P. Radtke** [15]	69%	31%	18%	13%	75%	-	-	-	25%	27%
R. Schiavina [16]	53%	47%	55%	45%	81%	56%	25%	-	19%	12%
M. Kozikowski [17]	55%	45%	34%	11%	71%	21%	50%	-	29%	15%

# Impact de l'IRM sur la préservation des bandelettes neurovasculaires



❑ La préservation des BVN améliore les résultats fonctionnels après PR



❑ Récidive de la maladie tumorale



Risque de marges positives

❑ Morbidité du traitement adjuvant

Table 3. Surgical plan change on a patient based analysis in patients referred to preoperative mpMRI (n=137)

<b>Without surgical plan change</b>	<b>73 (53.3%)</b>
<b>With surgical plan change</b>	<b>64 (46.7%)</b>
<b>More radical approach</b>	<b>35 (54.7%)</b>
-Bilateral NS → No NS	8 (22.8%)
-Bilateral NS → Unilateral NS	17 (48.6%)
-Unilateral NS → No NS	10 (28.6%)
<b>Less radical approach</b>	<b>29 (45.3%)</b>
-No NS → Unilateral NS	2 (6.9%)
-No NS → Bilateral NS	9 (31%)
-Unilateral NS → Bilateral NS	18 (62.1%)
NS: nerve sparing	

Table 4. Surgical plan change and relative appropriateness on side based analysis in patients referred to preoperative mpMRI (n=137)

	<b>Number</b>	<b>Appropriateness</b>
<b>Without intraoperative nerve sparing plan change</b>	<b>120 (43.8%)</b>	<b>98/120 (81.7%)</b>
<b>With intraoperative nerve sparing plan change</b>	<b>154 (56.2%)</b>	<b>116/154 (75.3%)</b>

MRI DISPLAYS THE PROSTATIC CANCER ANATOMY AND IMPROVES THE BUNDLES MANAGEMENT BEFORE ROBOT ASSISTED RADICAL PROSTATECTOMY , Journal of Endourology ,Mary Ann Liebert, Inc. 2017.

# Mesure de la longueur de l'urètre membraneux

- ❑ Incidence de l'incontinence urinaire après prostatectomie radicale élevée , en particulier dans la période post op précoce
- ❑ La récupération de l'incontinence est imprévisible et très variable d'une série à l'autre
- ❑ Délai de rétablissement variable , avec des améliorations rapportées jusqu'à 2 ans après chirurgie

**N=211 patients**

**Mesure de la longueur de l'urètre  
membraneux par IRM endo rectale  
préopératoire**

**Prostatectomie radicale rétro pubienne**

**MUL**

**> 12 mm:89% continence complète**

**≤12 mm :75% continence complète**

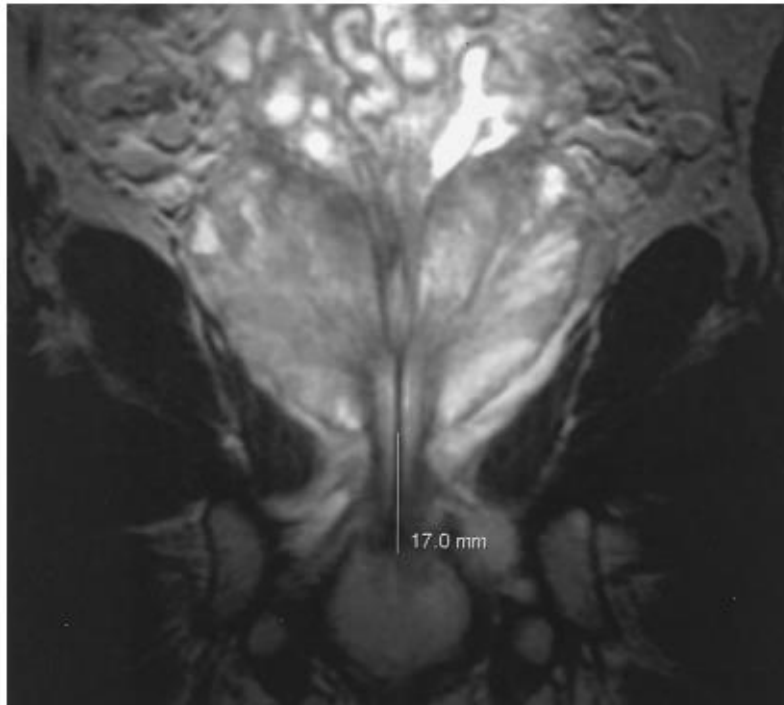


FIG. 1. Membranous urethral length was measured on coronal images as distance from prostatic apex to entry of urethra into penile bulb.

## URINARY CONTINENCE AFTER RADICAL RETROPUBIC PROSTATECTOMY: RELATIONSHIP WITH MEMBRANOUS URETHRAL LENGTH ON PREOPERATIVE ENDORECTAL MAGNETIC RESONANCE IMAGING

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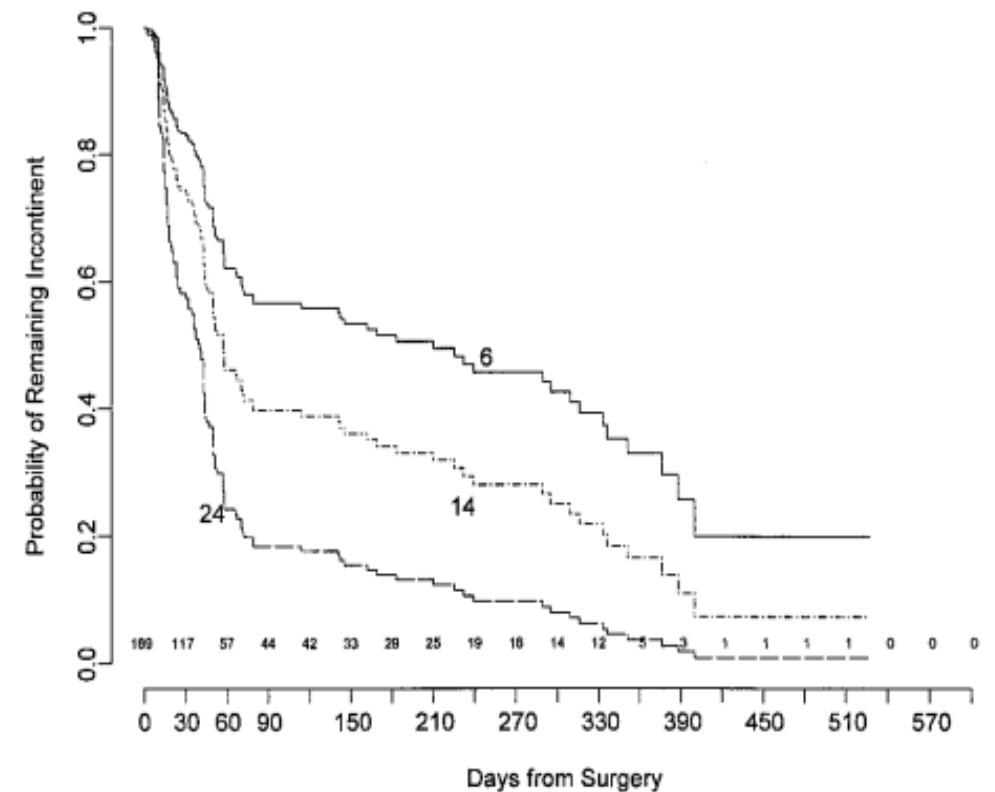


FIG. 2. Cox model for 3 membranous urethral lengths shows relationship of membranous urethral length on preoperative MRI and return of complete continence after radical retropubic prostatectomy.

## • Take home message

- ❑ L'IRM multiparamétrique présente une spécificité élevée mais une sensibilité faible pour la prédictions des facteurs histo-pronostiques de la PR ( extension extra prostatique , atteinte des vésicules séminales , envahissement ganglionnaire
- ❑ L'amélioration de cette sensibilité doit passer:
  - D'une part par l'intégration des données de l'IRM mp dans des nomogrammes de prédictions incluant les données cliniques et histologiques .
  - D'autres part : par l'implication de médecins radiologues référents expérimentés dans l'imagerie génito-urinaire

- ❑ L'utilisation de l'IRM mp pré opératoire permet d'évaluer à la fois l'anatomie pelvienne et le positionnement de la tumeur , ce qui peut aider à déterminer le taux de marges chirurgicales.
- ❑ Cependant l'impact de l'IRM mp sur la réduction des taux de marges positives n'est toujours pas clair et mérite des études plus approfondies.
- ❑ La mesure de MUL pourrait constituer une évaluation pré opératoire crédible , qui apporterait des informations pertinentes pour la planification chirurgicale .

**MERCI**