

III SIMPÓSIO INTERNACIONAL

GU - REVIEW 2019 - LACOG

**I CONSENSO BRASILEIRO
DE CÂNCER DE PÊNIS**

I SIMPÓSIO MULTIPROFISSIONAL ABRENFOH-LACOG GU
29 e 30 de Novembro | Hotel Intercontinental



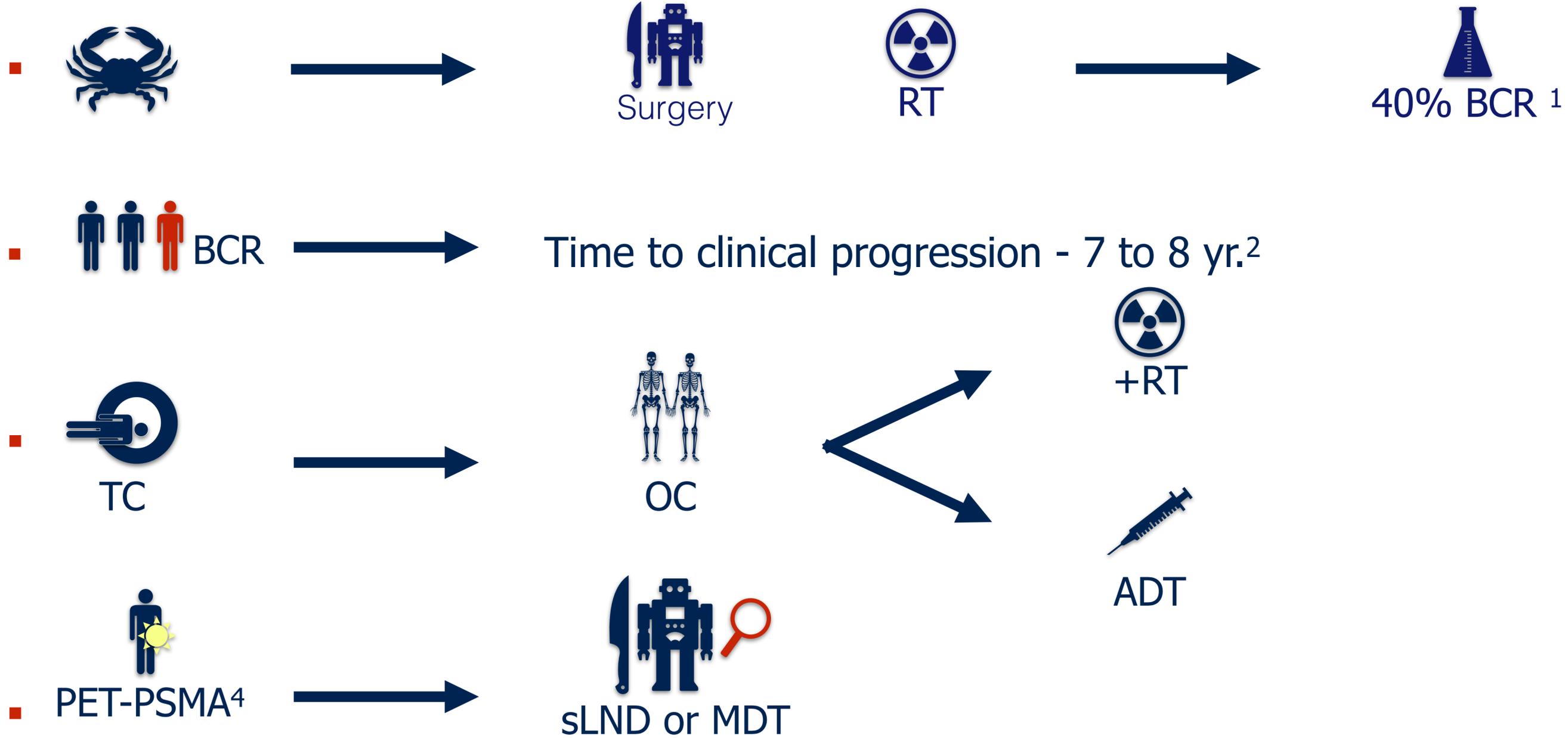
Nodal Recurrence:

I DO SURGERY

Raphael Rocha, MD, MSc



Contextualizing...



1. Eggener SE, Scardino PT, Walsh PC, Han M, Partin AW, Trock BJ, et al. Predicting 15-year prostate cancer specific mortality after radical prostatectomy. J Urol. 2011;185:869–75.
2. Freedland SJ, Humphreys EB, Mangold LA, Eisenberger M, Dorey FJ, Walsh PC, et al. Risk of prostate cancer-specific mortality following biochemical recurrence after radical prostatectomy. J Am Med Assoc. 2005;294:433–9.
3. Mottet N, Bellmunt J, Bolla M, Briers E, Cumberbatch MG, De Santis M, et al. EAU-ESTRO-SIOG guidelines on prostate cancer. Part 1: screening, diagnosis, and local treatment with curative intent. Eur Urol. 2017;71:618–29.
4. Perera M, Papa N, Christidis D, Wetherell D, Hofman MS, Murphy DG, et al. Sensitivity, specificity, and predictors of positive (68)Ga-prostate-specific membrane antigen positron emission tomography in advanced prostate cancer: a systematic review and meta-analysis. Eur Urol. 2016;70:926–37.
5. Heidenreich A, Moul JW, Shariat S, Karnes RJ. Role of salvage lymph node dissection in prostate cancer. Curr Opin Urol. 2016;26:581–9.

What to do with it?



MDT - Is it the future?





Prostate Cancer

Standard of Care Versus Metastases-directed Therapy for PET-detected Nodal Oligorecurrent Prostate Cancer Following Multimodality Treatment: A Multi-institutional Case-control Study

T. Steuber^a, C. Jilg^b, P. Tennstedt^a, A. De Bruycker^c, K. Decaestecker^d, T. Zilli^e, B.A. Jerezek-Fossa^f, U. Wetterauer^b, A.L. Grosu^g, W. Schultze-Seemann^b, H. Heinzer^a, M. Graefen^a, A. Morlacco^h, R.J. Karnes^h, Piet Ost^{c,*}

^a Martini-Clinic, Prostate Cancer Center, University Hospital Hamburg Eppendorf, Hamburg, Germany; ^b Department of Urology, Albert Ludwig University Hospital, Freiburg, Germany; ^c Department of Radiotherapy, Ghent University Hospital, Ghent, Belgium; ^d Department of Urology, Ghent University Hospital, Ghent, Belgium; ^e Department of Radiotherapy, Geneva University Hospital, Geneva, Switzerland; ^f University of Milan and European Institute of Oncology, Milan, Italy; ^g Department of Radiation Oncology, Albert Ludwig University hospital, Freiburg, Germany; ^h Department of Urology, Mayo-Clinic, Rochester, MN, USA

Retrospective

Patients PSA progression after PR+RT

1816 ADT (SOC group - Standard of care)

236 MDT (MDT- Metastasis-directed therapy)

PET- Colina e FDG

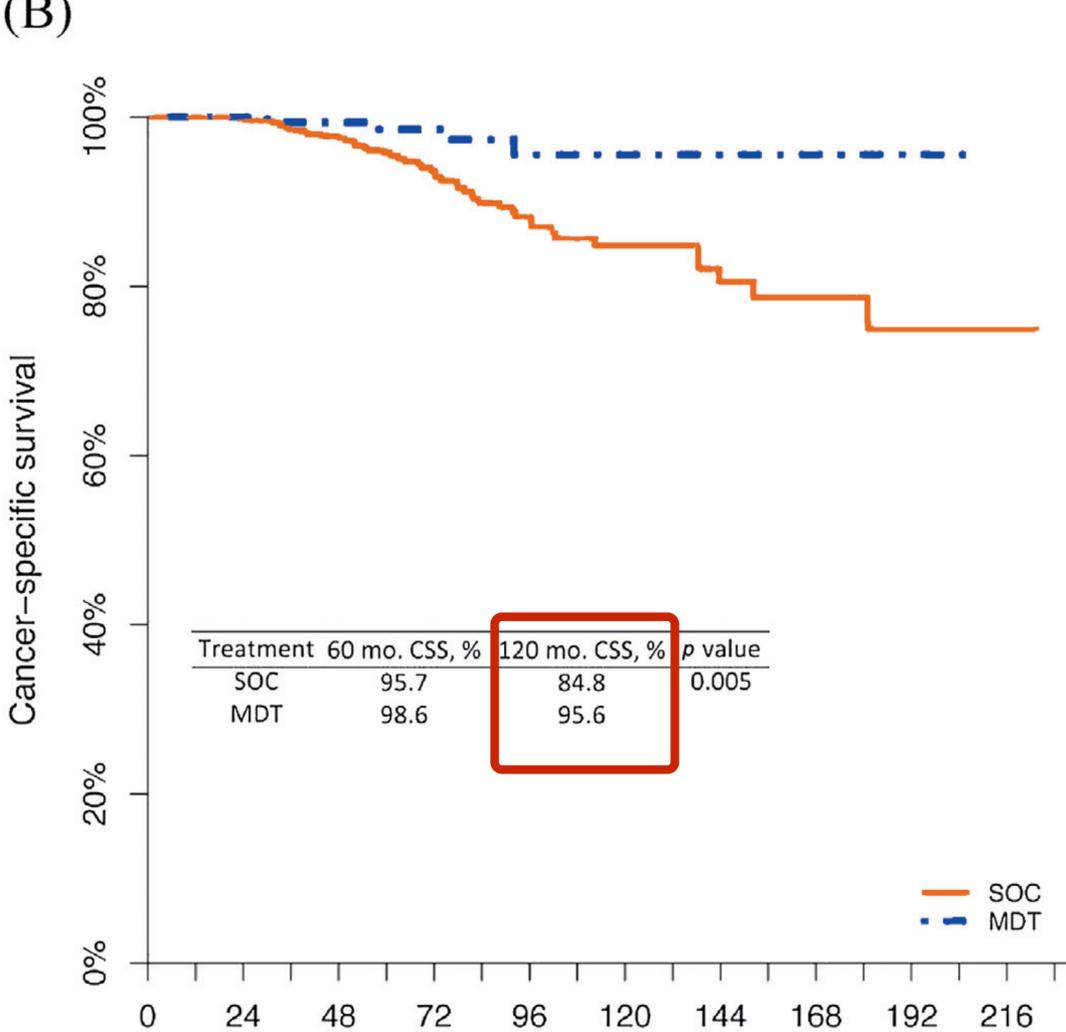
Mean Follow up - 70 mo



Table 3 – Patient characteristics after propensity score matching analysis.

Parameter	SOC	MDT	p value
Patients, n (%)	494 (75)	165 (25)	
Age at RP, yr			
Median (IQR)	64 (58–68)	62 (59–67)	0.41
PSA at RP, ng/ml			
Median (IQR)	9.3 (6.1–15.0)	9.8 (6.4–15.0)	0.52
Year of surgery			
Median (IQR)	2009 (2006–2011)	2009 (2006–2011)	0.51
Time from RP to PSA progression following RT, mo			
Median (IQR)	28.7 (13.2–55.6)	27.1 (12.8–48.1)	0.15
pT-stage, n (%)			
pT2	148 (30)	49 (29.7)	0.66
pT3a	157 (31.8)	47 (28.5)	
≥pT3b	189 (38.3)	69 (41.8)	
pN-status, n (%)			
N0	382 (77.3)	130 (78.8)	0.7
N+	112 (22.7)	35 (21.2)	
Gleason score, n (%)			
6	16 (3.2)	6 (3.6)	0.97
7	375 (75.9)	125 (75.8)	
≥8	103 (20.9)	34 (20.6)	
Surgical margin, n (%)			
Negative	313 (63.4)	95 (57.6)	0.19
Positive	181 (36.6)	70 (42.4)	

IQR = prostate-specific antigen; MDT = metastasis-directed therapy; PSA = prostate-specific antigen; RP = radical prostatectomy; RT = radiotherapy; SOC = standard of care.



	Time (mo)									
	0	24	48	72	96	120	144	168	192	216
SOC at risk	495	481	386	253	152	95	53	26	16	4
SOC CSM	0	7	17	32	39	40	44	44	45	45
MDT at risk	165	163	134	88	49	29	13	7	2	0
MDT CSM	0	1	2	3	4	4	3	4	4	4

Fig. 1 - Kaplan-Meier estimates depicting cancer-specific survival for patients treated with standard of care (red line) or metastasis-directed therapy (blue line). (A) Whole study cohort and (B) after propensity score matching. CSS = cancer-specific survival; CSM = cancer-specific mortality; MDT = metastasis-directed therapy; SOC = standard of care.

MDT for nodal oligorecurrent PCa improves CSS as compared with SOC without MDT. These data from a multi-institutional pooled analysis should be considered hypothesis-generating.

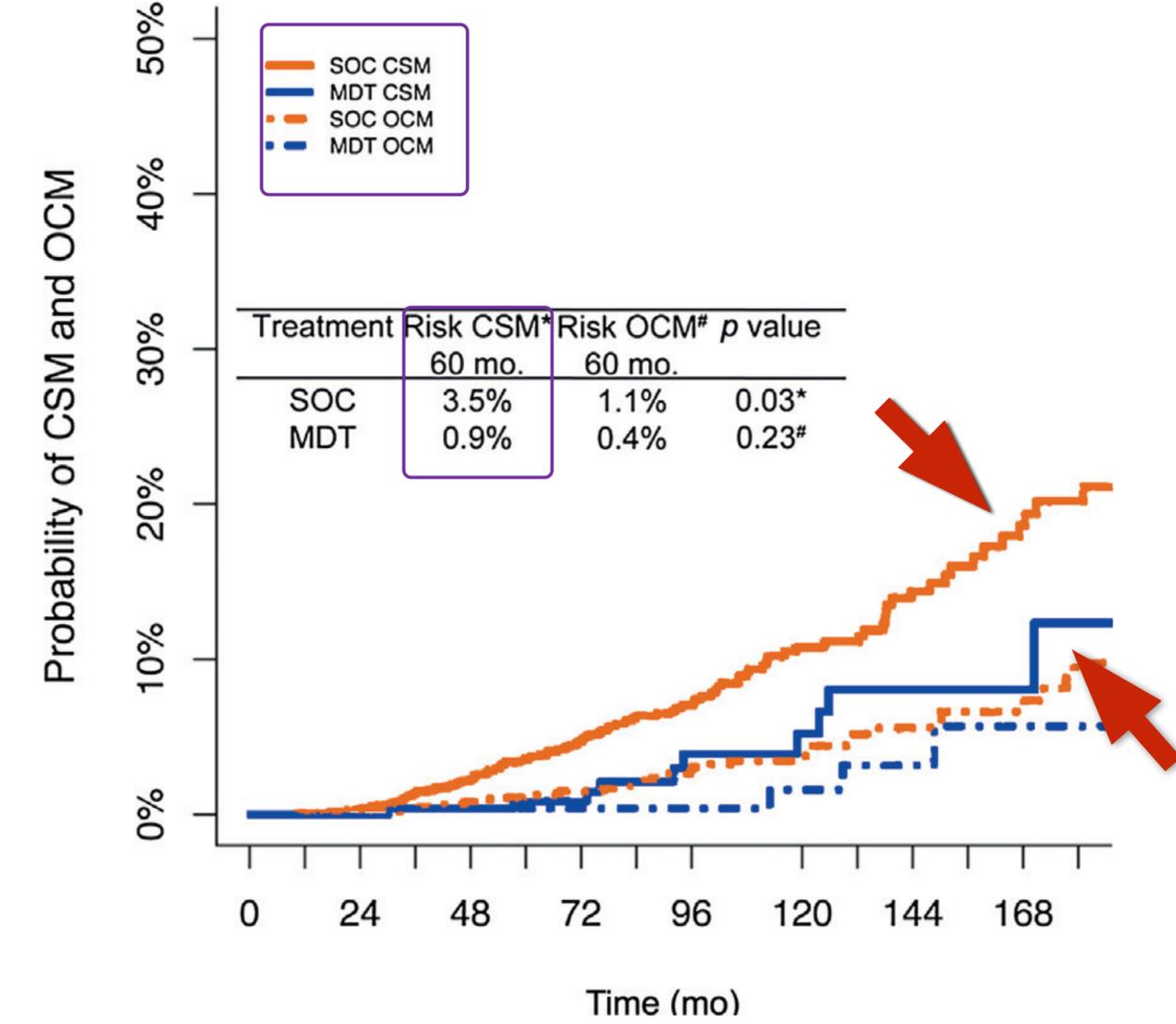
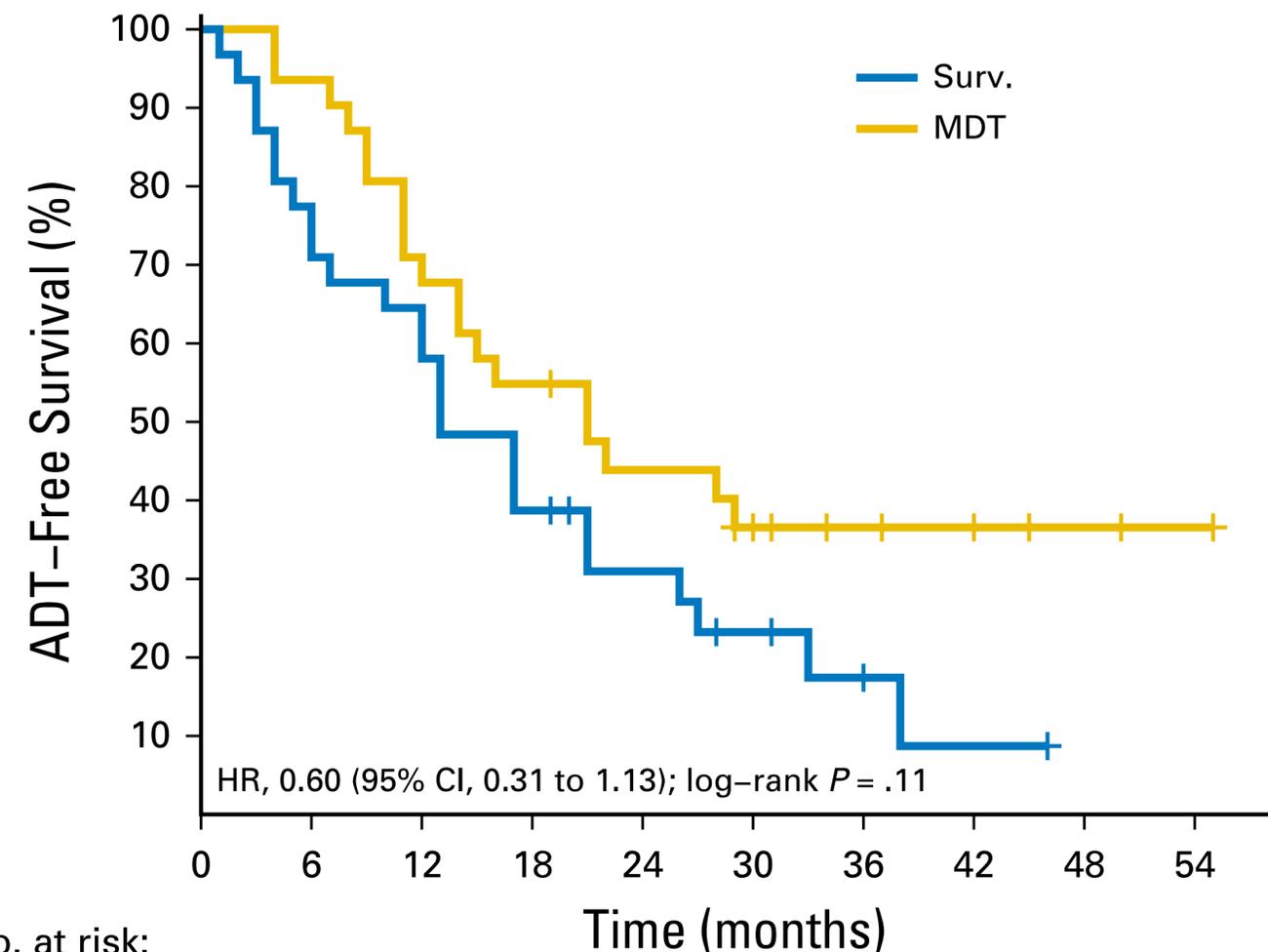


Fig. 2 - Cumulative risk of cancer-specific mortality and other cause mortality after 60 and 120 mo stratified by treatment group. Standard of care is indicated in red and metastasis-directed therapy in blue. CSM = cancer-specific mortality; MDT = metastasis-directed therapy; OCM = other cause mortality; SOC = standard of care.

Surveillance or Metastasis-Directed Therapy for Oligometastatic Prostate Cancer Recurrence: A Prospective, Randomized, Multicenter Phase II Trial

Piet Ost, Dries Reynders, Karel Decaestecker, Valérie Fonteyne, Nicolaas Lumen, Aurélie De Bruycker, Bieke Lambert, Louke Delrue, Renée Bultijnck, Tom Claeys, Els Goetghebeur, Geert Villeirs, Kathia De Man, Filip Ameye, Ignace Billiet, Steven Joniau, Friedl Vanhaverbeke, and Gert De Meerleer

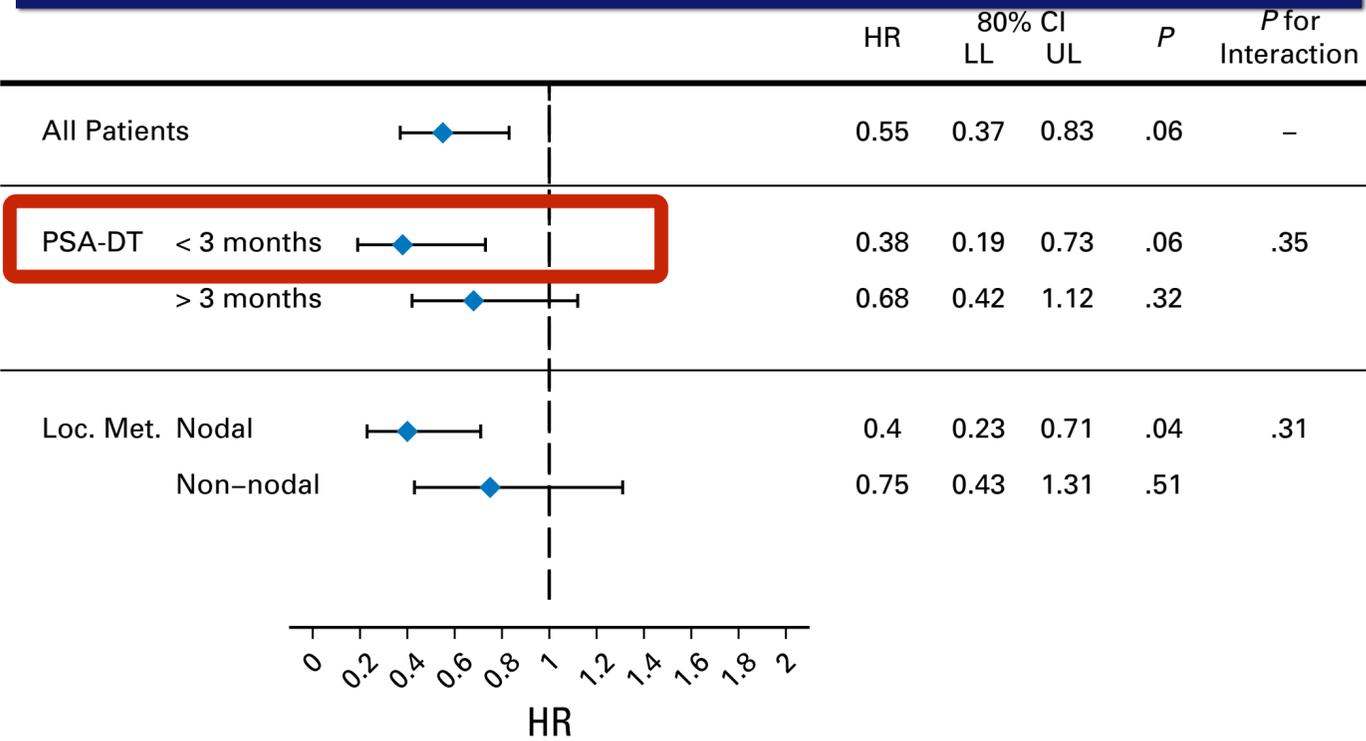
62 Pt - PR or RT or both
 31Sv (5 MDT) x 31 MDT (SBRT or SLND)
 <= 3 Metastasis - 11C- choline PET
 MFup - 3y
 1 EP - STFS



No. at risk:

	0	6	12	18	24	30	36	42	48	54
MTD	31	29	22	17	12	9	6	5	2	1
Surv.	31	24	20	12	8	5	3	1	0	0

ADT FS - Sv: 13 mo x MDT: 21 mo - HR, 0,55; p=0,11
 No symptomatic or local progression was observed in the MDT
 17% of MDT - grade 1 toxicity. No grade 2 or higher.



SLND



Salvage lymph node dissection for prostate cancer nodal recurrence detected by 11C-choline positron emission tomography/computerized tomography.

Karnes RJ¹, Murphy CR², Bergstralh EJ³, DiMonte G², Cheville JC⁴, Lowe VJ⁵, Mynderse LA², Kwon ED².

BEST RESULTS

Retrospective

N: 52

73% cBR

F.up 20 mo

BCRFS 45%

PFS 47%

CSS 92%

Figure 1:

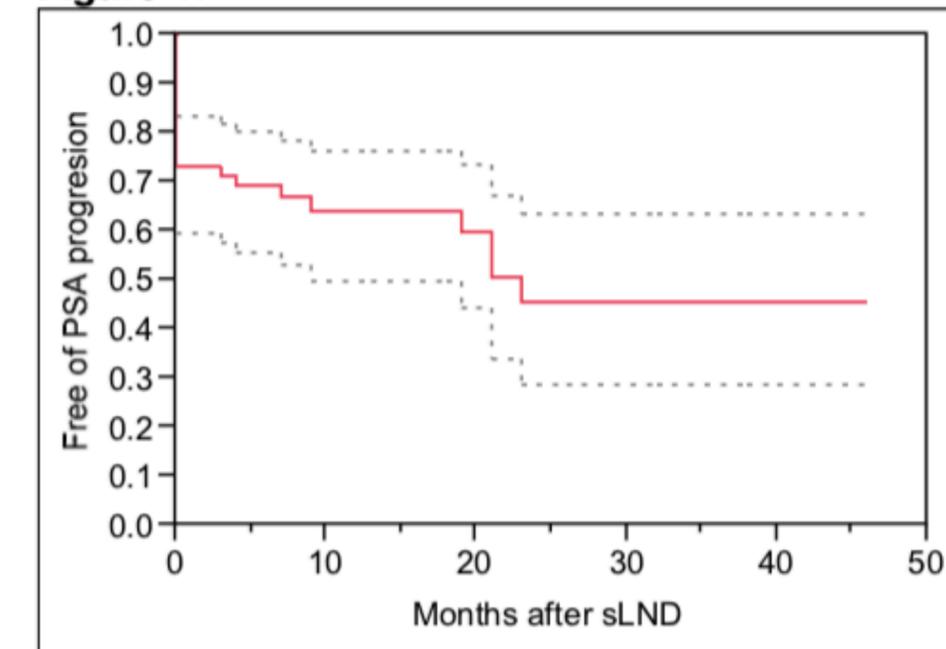
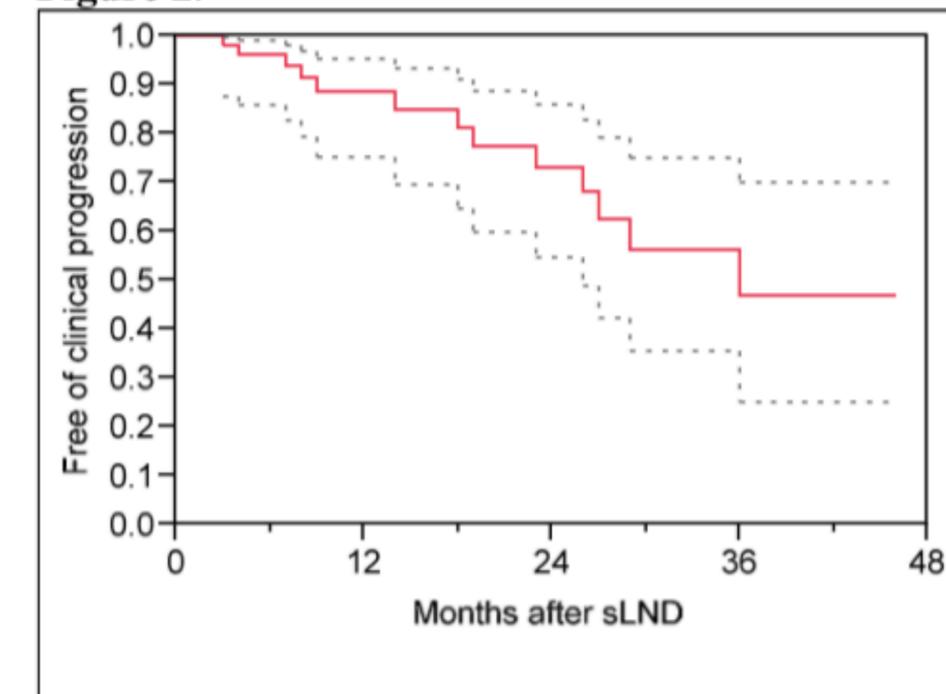


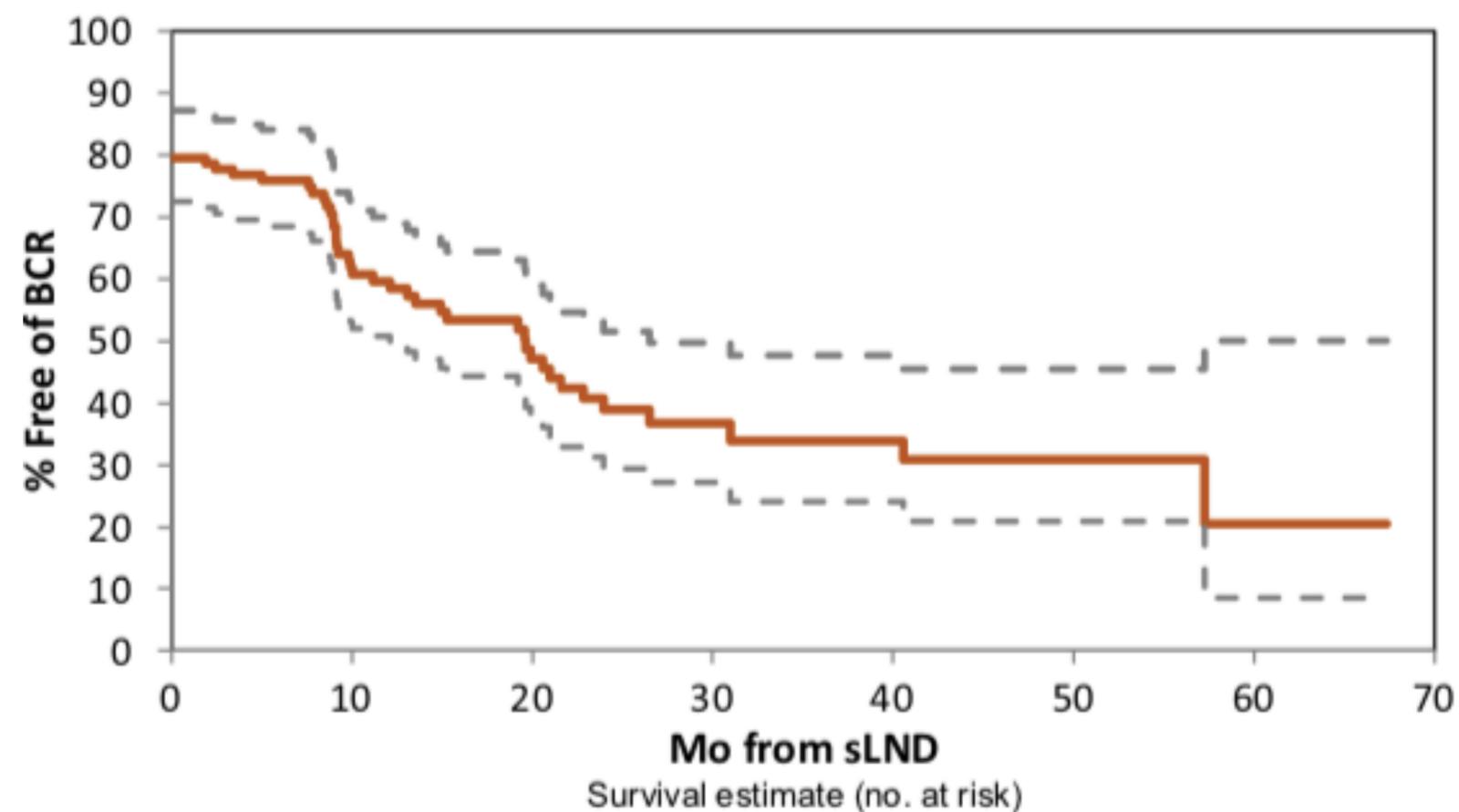
Figure 2:





Mid-term Outcomes Following Salvage Lymph Node Dissection for Prostate Cancer Nodal Recurrence Status Post-radical Prostatectomy

Fabio Zattoni^a, Avinash Nehra^a, Christopher R. Murphy^a, Laureano Rangel^b, Lance Mynderse^a, Val Lowe^c, Eugene Kwon^a, R. Jeffrey Karnes^{a,*}



- Retrospective
- N 117
- BCR = PSA > 0,2 ng / ml
- **PET- colina** x Htp = 100%
- BR 79,5% after sLND
- **cBR 60% keep response (mean Fup. 20 mo)**
- 5y - BCR 31% e CSS 97%

Review – Prostate Cancer

Salvage Lymph Node Dissection for Nodal Recurrent Prostate Cancer: A Systematic Review

Guillaume Ploussard^{a,}, Giorgio Gandaglia^b, Hendrik Borgmann^c, Pieter de Visschere^d, Isabel Heidegger^e, Alexander Kretschmer^f, Romain Mathieu^g, Cristian Surcel^h, Derya Tilki^{i,j}, Igor Tsaour^c, Massimo Valerio^k, Roderick van den Bergh^l, Piet Ost^m, Alberto Briganti^b, on behalf of the EAU-YAU Prostate Cancer Working Group*

27 papers sLND - **1370 pts**
PET PSMA and Colina
Mean N LND - 19.8
Mean F. up - 29.4m

<10% complications Clavien > 3

Mean cBR - 44%

BCRFS - 6 a 31% em 5y

The role of salvage extended lymph node dissection in patients with rising PSA and PET/CT scan detected nodal recurrence of prostate cancer

D Porres^{1,6}, D Pfister^{1,6}, A Thissen¹, TH Kuru¹, V Zugor¹, R Buettner², R Knuechel³, FA Verburg^{4,5} and A Heidenreich¹

Retrospective, 2009-2016
 Mean Follow up 21 mo
87 pct BCR
PET-PSMA
HP correlation
 Pts with local recurrence,
 bone or visceral metastasis

Table 1. Descriptive statistics and preoperative findings of patients treated with sLND

Variables	Entire cohort (n = 87, 100%)
<i>Primary therapy, n (%)</i>	
Prostatectomy	76 (87.4)
Radiation therapy	9 (10.3)
HIFU	2 (2.3)
<i>pT stage at radical prostatectomy, n (%)</i>	
pT2	29 (38.2)
pT3	47 (61.8)
<i>pN stage at radical prostatectomy, n (%)</i>	
pN0	51 (67.1)
pN1	18 (23.7)
pNx	7 (9.2)
<i>Total number of LNs removed, per RP</i>	
Mean (median)	11.2 (10.5)
Range	2–24
<i>cT stage at radiation therapy/HIFU, n (%)</i>	
cT1	3 (27.3)
cT2	7 (63.6)
cT3	1 (9.1)
<i>Gleason score at radical prostatectomy, n (%)</i>	
< 7	4 (5.3)
7	37 (48.7)
8–10	35 (46.0)

<i>Biopsy Gleason score at radiation therapy/HIFU, n (%)</i>	
< 7	4 (36.4)
7	6 (54.5)
8–10	1 (9.1)
<i>Prior adjuvant/salvage radiation therapy, n (%)</i>	
Yes	44 (57.9)
No	32 (42.1)
<i>ADT at PET/CT, n (%)</i>	
Yes	16 (18.4)
No	71 (81.6)
<i>Tracer of performed PET/CT, n (%)</i>	
¹⁸ FEC	38 (43.7)
⁶⁸ Ga-PSMA	49 (56.3)
<i>Time to sLND after primary therapy (months)</i>	
Mean (median)	63.2 (53)
IQR	21–91
<i>PSA at sLND (ng ml⁻¹)</i>	
Mean (median)	2.63 (2.2)
IQR	1.27–3.75

Most pts high risk

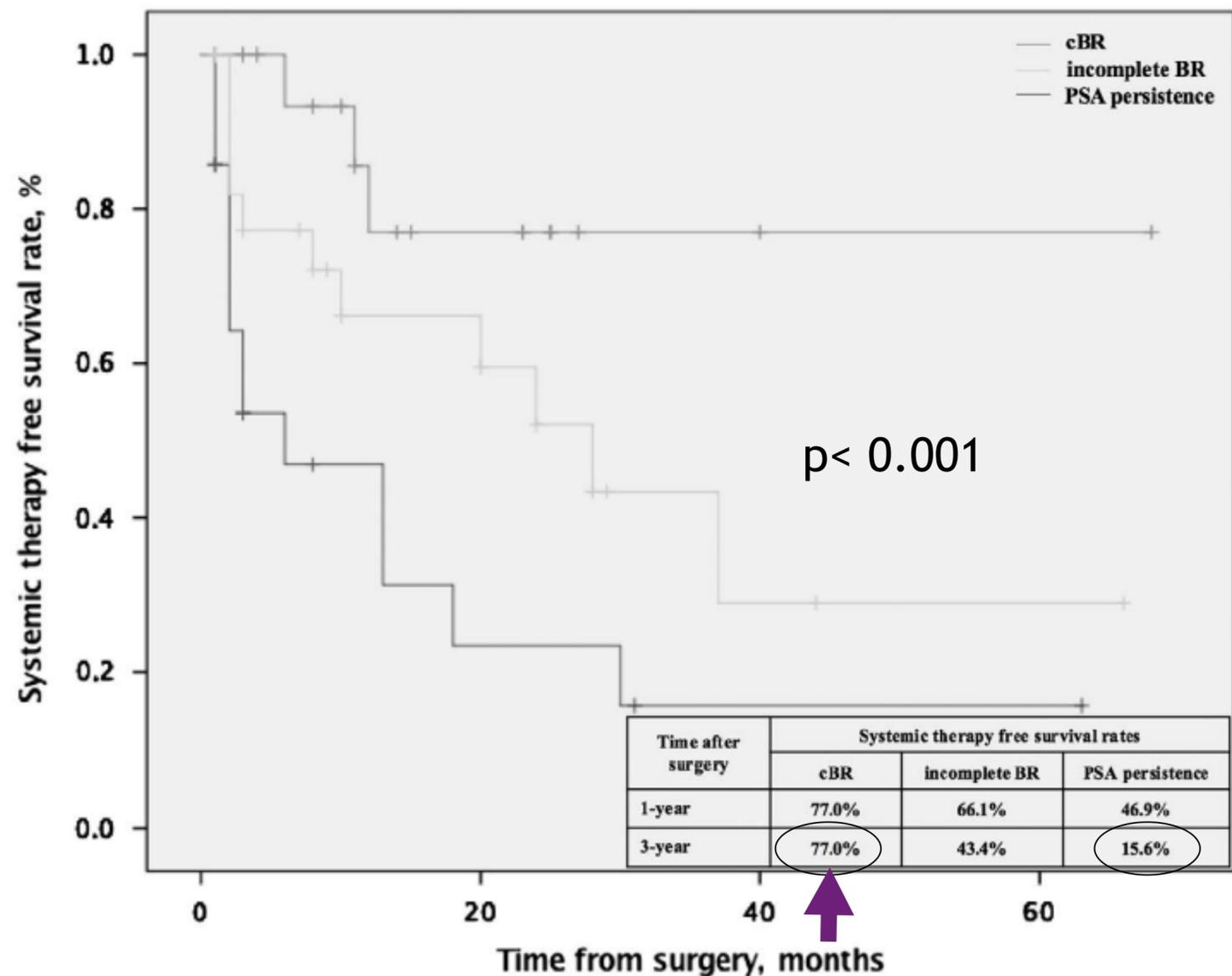
The role of salvage extended lymph node dissection in patients with rising PSA and PET/CT scan detected nodal recurrence of prostate cancer

D Porres^{1,6}, D Pfister^{1,6}, A Thissen¹, TH Kuru¹, V Zugor¹, R Buettner², R Knuechel³, FA Verburg^{4,5} and A Heidenreich¹

Systemic therapy free survival

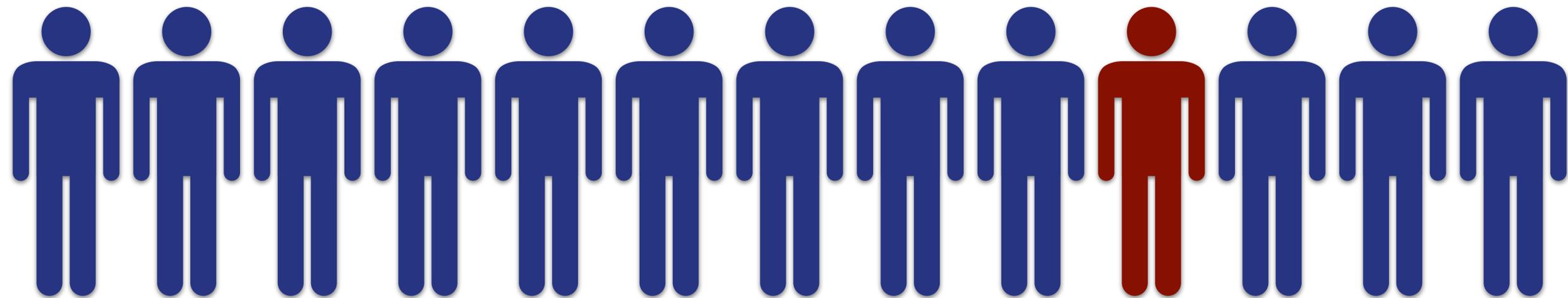
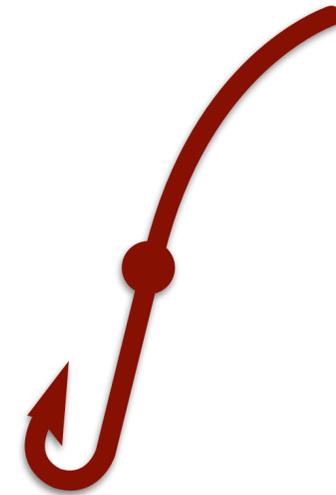
- 1 y: 63.4%
- 3 y: 40.9%
- 5 y: 35.1%

Results:
cBR - 27%
CR - 21%
ADT after - 37.8%



cBR - 77% STFS at 3y

And for whom?



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journal homepage: www.europeanurology.com



Prostate Cancer

Long-term Outcomes of Salvage Lymph Node Dissection for Clinically Recurrent Prostate Cancer: Results of a Single-institution Series with a Minimum Follow-up of 5 Years

Nazareno Suardi^{a,†}, Giorgio Gandaglia^{a,†}, Andrea Gallina^a, Ettore Di Trapani^a, Vincenzo Scattoni^a, Damiano Vizziello^a, Vito Cucchiara^a, Roberto Bertini^a, Renzo Colombo^a, Maria Picchio^b, Giampiero Giovacchini^b, Francesco Montorsi^a, Alberto Briganti^{a,*}

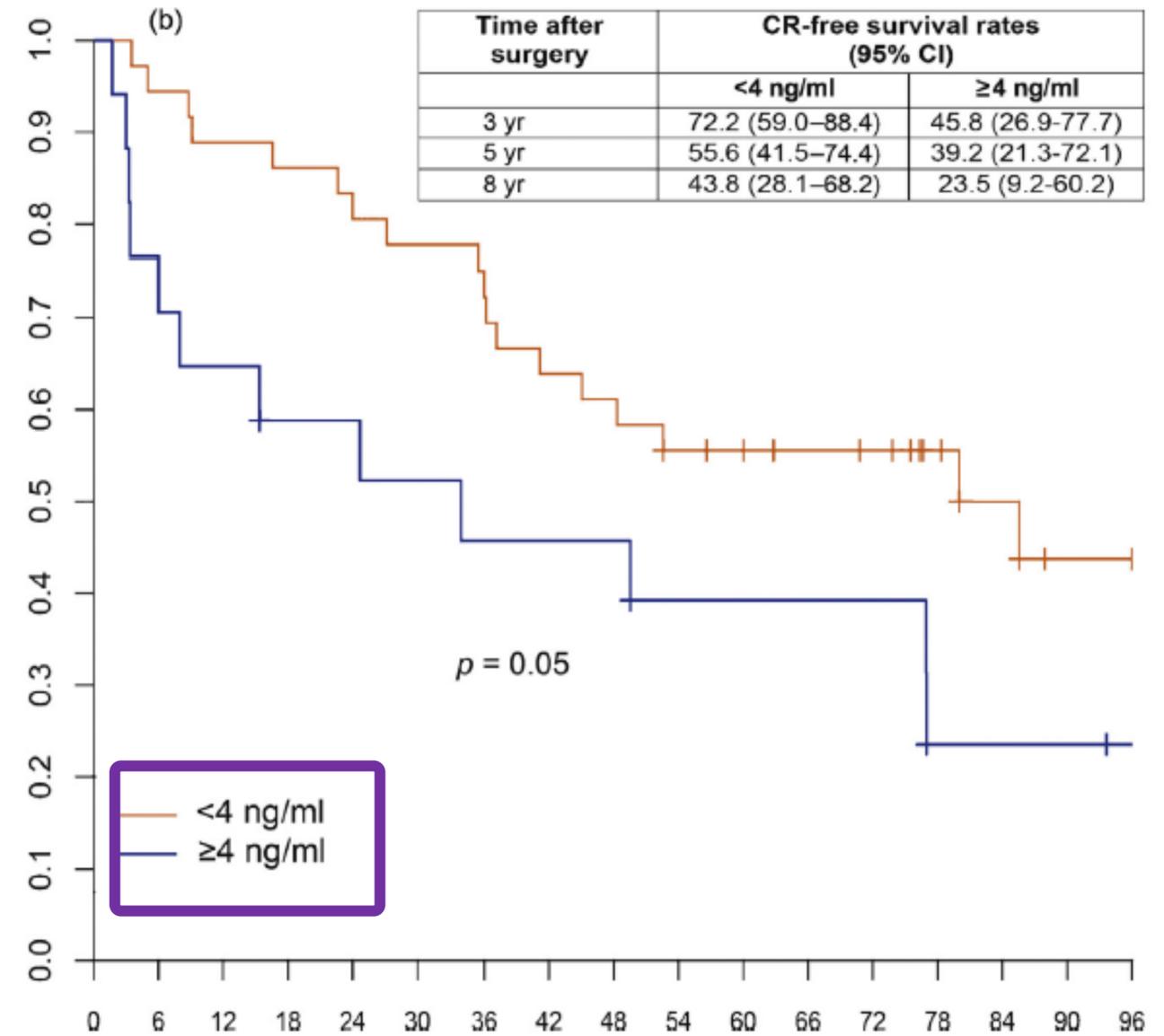
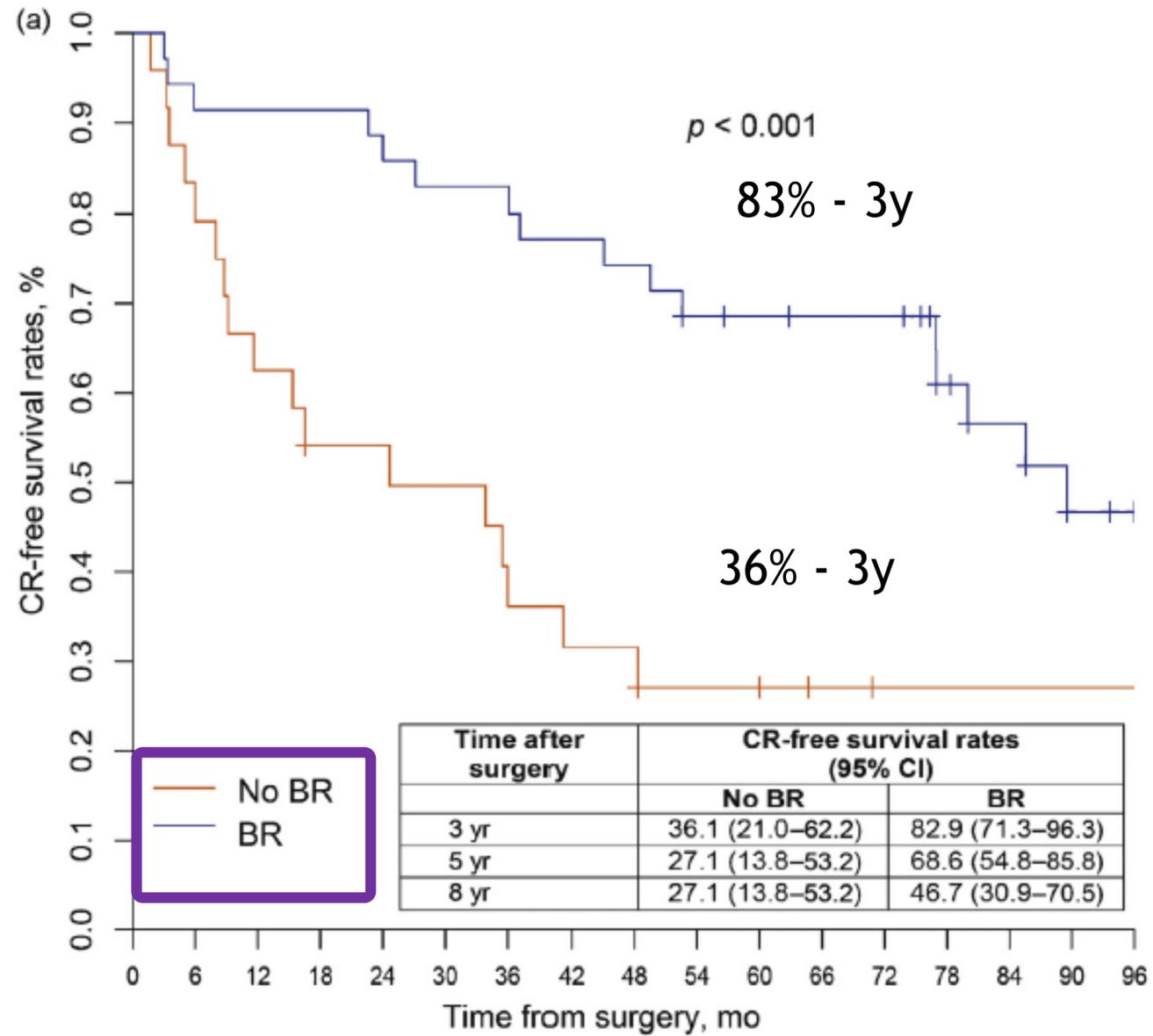
Retrospective 59 pts sLND PET-colina
 All with negative prostatic bed biopsy
 Partial BR = ADT
 1 EP - **clinical recurrence (CR)**
 (PSA e PET positivo)

Table 3 – Pathologic results and follow-up data of patients treated with salvage lymph node dissection for nodal recurrent prostate cancer after radical prostatectomy

Variable	Value
Patients with positive lymph nodes at salvage LND, n (%)	47 (79.6)
Site LND, n (%)	
Pelvic	14 (23.7)
Pelvic plus retroperitoneal	45 (76.3)
Total no. of lymph nodes removed	
Mean (median)	29.5 (26)
Biochemical response after salvage LND, n (%)	35 (59.3)
Adjuvant ADT after salvage LND, n (%)	39 (66.1)
Follow-up after salvage LND, mo	
Mean (median)	81.1 (76.6)
Clinical recurrence at follow-up (%)	34 (57.6)
Site of clinical recurrence, n (%)	
Other lymph nodes	16 (47.1)
Bone	12 (35.3)
Visceral organs	6 (17.6)
Cancer-specific mortality at follow-up, n (%)	8 (13.6)

40% free of CR at follow up (mean 81 mo (6y))

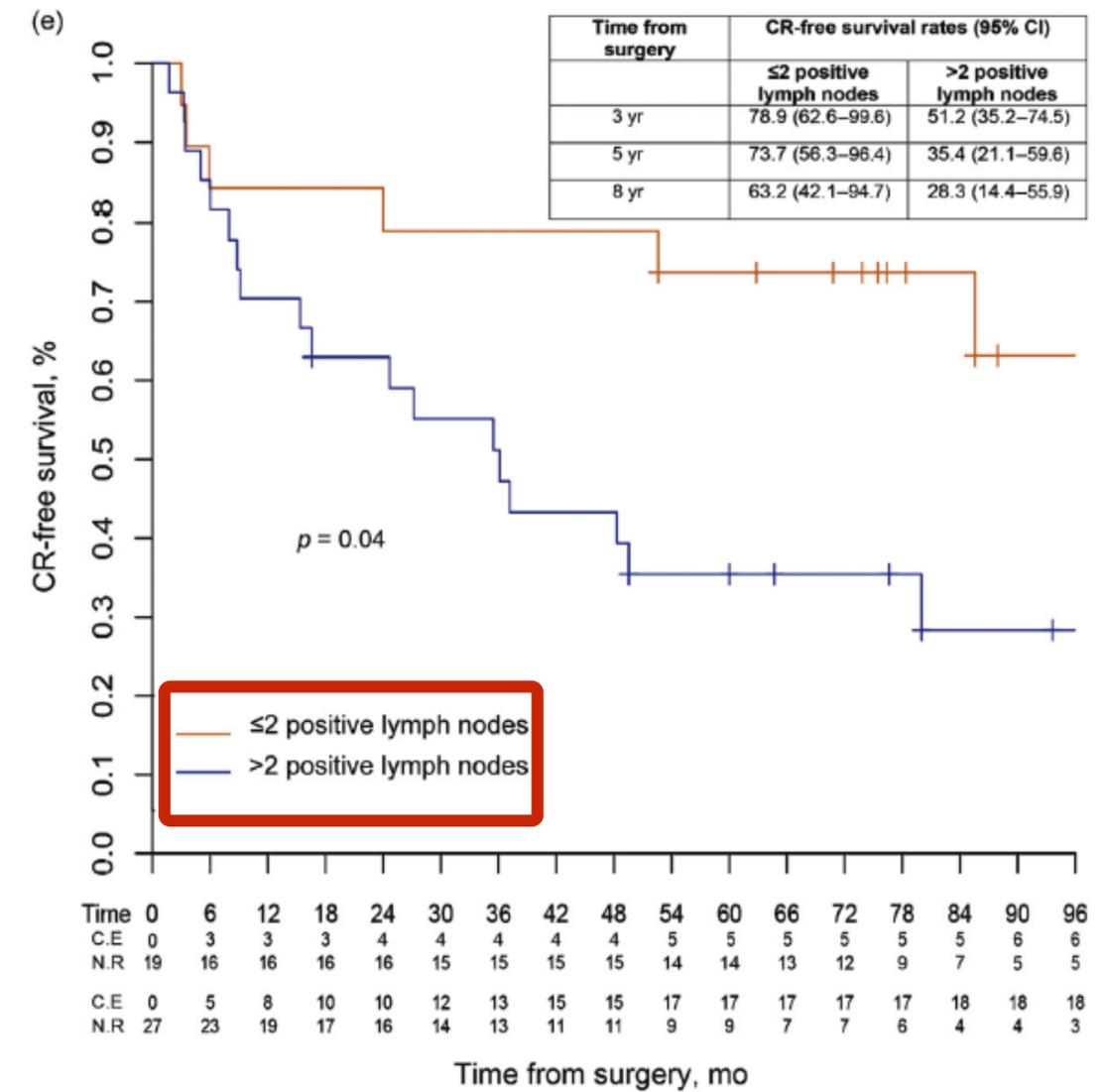
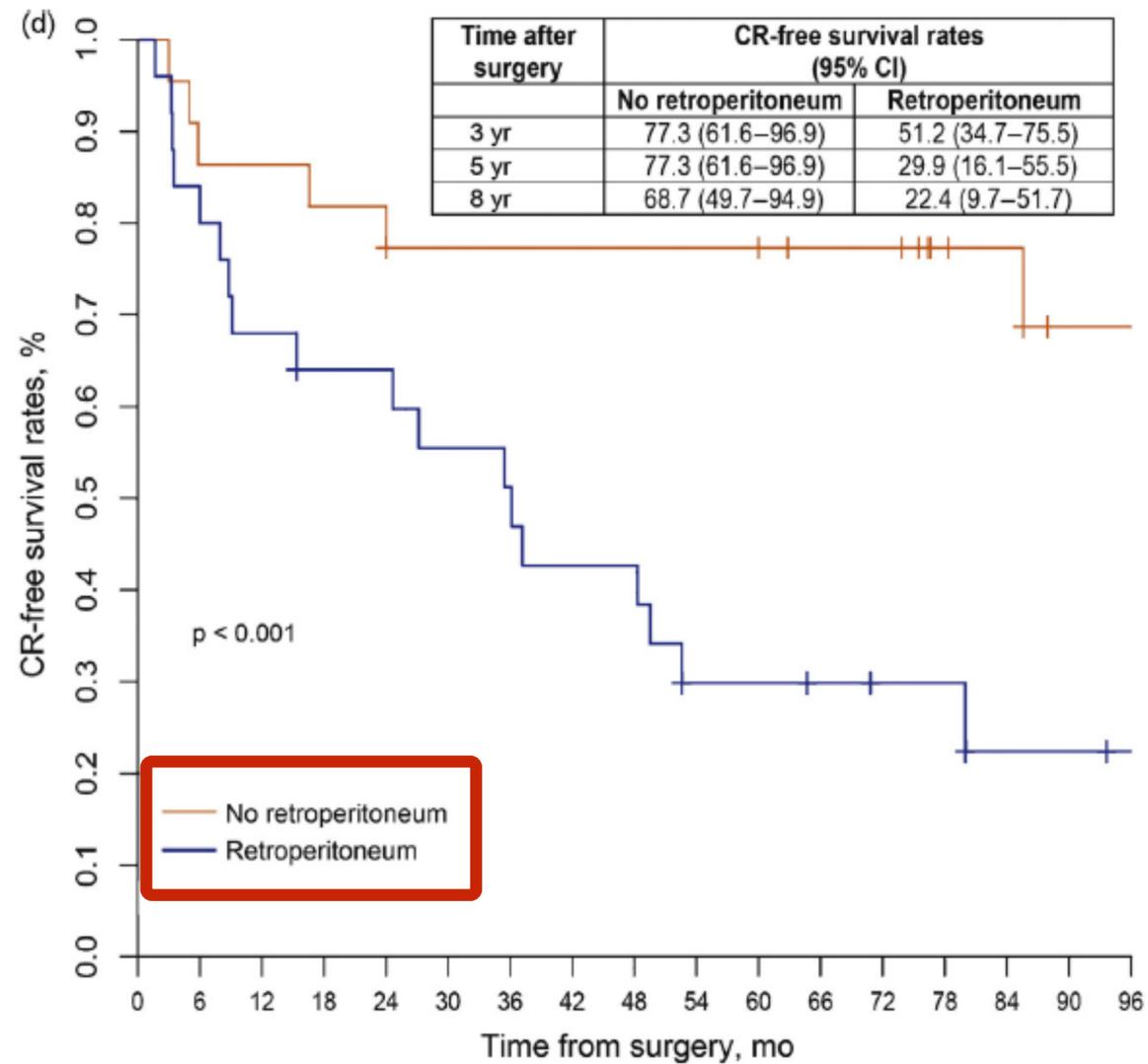
CR free



Retroperitoneum
LN+ vs LN-

CR free

≤ 2LN+ vs ≥2 LN+



PATIENTS WITH LOW PSA, PELVIC LIMITED NODAL DISEASE AND BIOCHEMICAL RESPONSE AFTER sLND MAY HAVE MORE BENEFIT FROM THIS APPROACH.



Platinum Priority – Prostate Cancer

Editorial by Arnulf Stenzl on pp. 944–945 of this issue

Pelvic/Retroperitoneal Salvage Lymph Node Dissection for Patients Treated With Radical Prostatectomy With Biochemical Recurrence and Nodal Recurrence Detected by [11C]Choline Positron Emission Tomography/Computed Tomography

Patrizio Rigatti^a, Nazareno Suardi^{a,*}, Alberto Briganti^a, Luigi F. Da Pozzo^b, Manuela Tutolo^a, Luca Villa^a, Andrea Gallina^a, Umberto Capitanio^a, Firas Abdollah^a, Vincenzo Scattoni^a, Renzo Colombo^a, Massimo Freschi^c, Maria Picchio^d, Cristina Messa^d, Giorgio Guazzoni^a, Francesco Montorsi^a

Prospective, 72 pct

sLND - PET- Colina +

LND retroperitoneal - 77% pts

Partial response → 2 y ADT

1°EP - BR and CPFS (clinical progression free survival)

Table 2 – Patient history and clinical characteristics (n = 72)

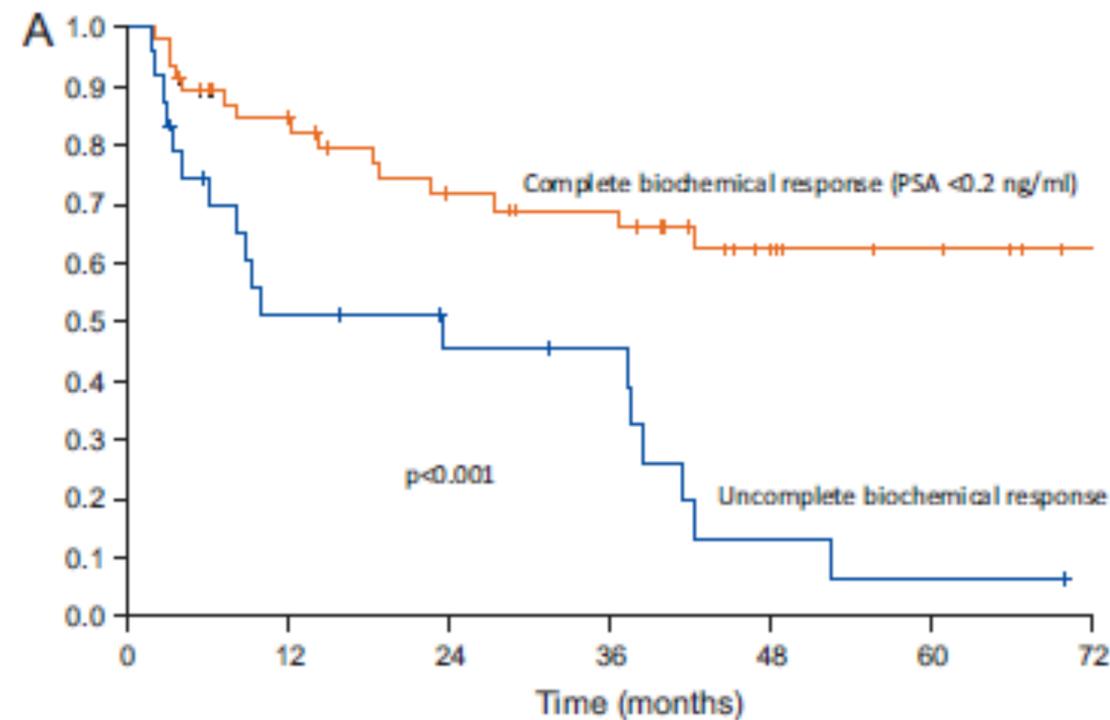
Variables	Value
Age at salvage LND, yr	
Mean	66.7
Median (IQR)	66.9 (61.0–73.6)
pT stage at RP (%)	
pT2	26 (36.1)
<pt3< p=""></pt3<>	43 (59.7)
pT4	3 (4.2)
Positive surgical margin(s) at RP (%)	
pT2	3 (11.5)
pT3	8 (18.6)
pT4	1 (33.3)
Pathologic Gleason score at RP (%)	
≤6	13 (18)
<p>7</p>	32 (44.4)
8–10	27 (37.6)
pN stage at RP (%)	
<p>pN0</p>	43 (59.7)
pN1	18 (25)
pNx	11 (15.3)
No. of lymph nodes removed at RP	
Mean (median)	9.82 (9)
Median (IQR)	2.7–15
PSA at salvage LND	
<p>Mean</p>	3.73
Median (IQR)	1.5 (0.8–5.17)
Time to BCR after RP, mo	
Mean	36.45
Median (IQR)	31.23 (14.4–53.8)
Adjuvant radiotherapy after RP prior to salvage LND (%)	27 (37.5)
Salvage radiotherapy after RP prior to salvage LND (%)	14 (19.4)
Hormonal manipulation prior to salvage LND	40 (55.5)
Number of positive [11C]choline PET/CT sites (%)	
1	19 (26.4)
2	53 (73.6)
Pelvic [11C]choline PET/CT scan positivity only (%)	47 (65.3)
Retroperitoneal [11C]choline PET/CT scan positivity only (%)	12 (16.7)
Pelvic + retroperitoneal [11C]choline PET/CT scan positivity (%)	13 (18)



Platinum Priority – Prostate Cancer
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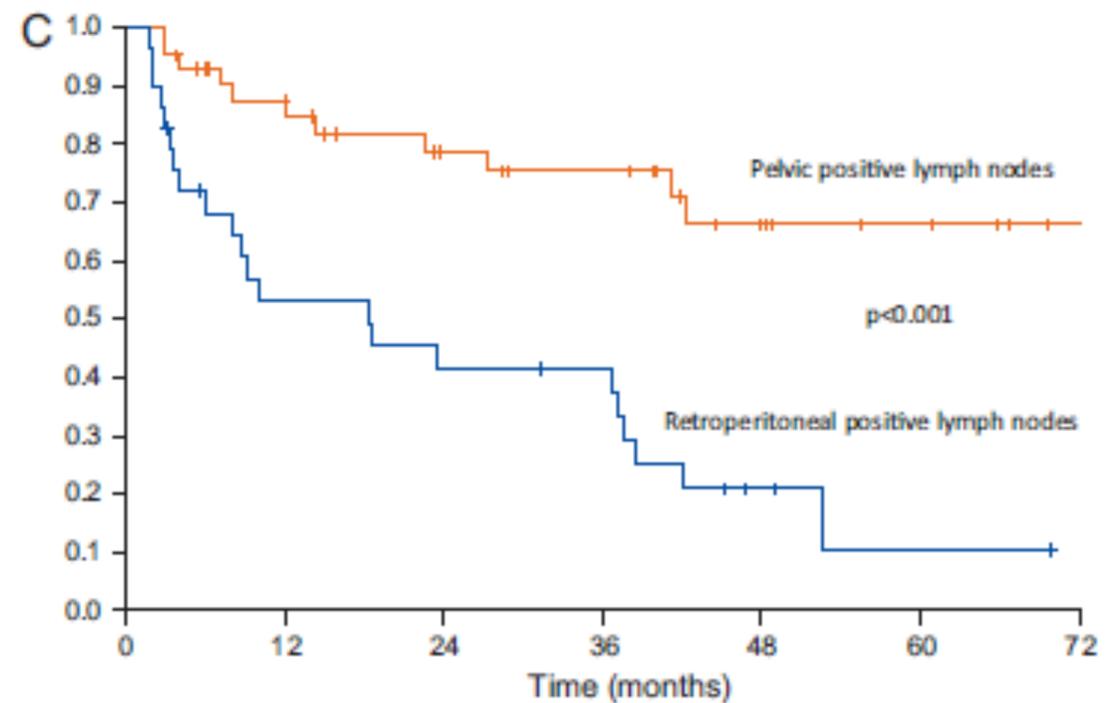
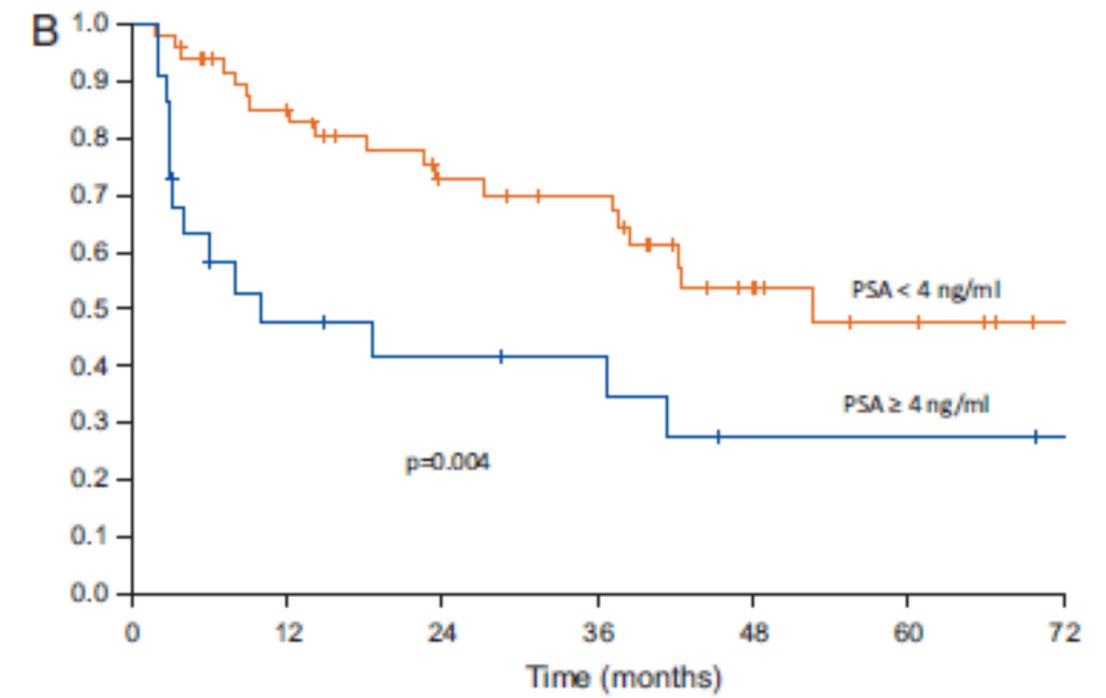
Pelvic/Retroperitoneal Salvage Lymph Node Dissection for Patients Treated With Radical Prostatectomy With Biochemical Recurrence and Nodal Recurrence Detected by [11C]Choline Positron Emission Tomography/Computed Tomography

Patrizio Rigatti^a, Nazareno Suardi^{a,*}, Alberto Briganti^a, Luigi F. Da Pozzo^b, Manuela Tutolo^a, Luca Villa^a, Andrea Gallina^a, Umberto Capitanio^a, Firas Abdollah^a, Vincenzo Scattoni^a, Renzo Colombo^a, Massimo Freschi^c, Maria Picchio^d, Cristina Messa^d, Giorgio Guazzoni^a, Francesco Montorsi^a



cBR - 56,9%
C.Recurrence - 48%

Time to Clinical progression



available at www.sciencedirect.com
journal homepage: www.europeanurology.com/eufocus



Prostate Cancer

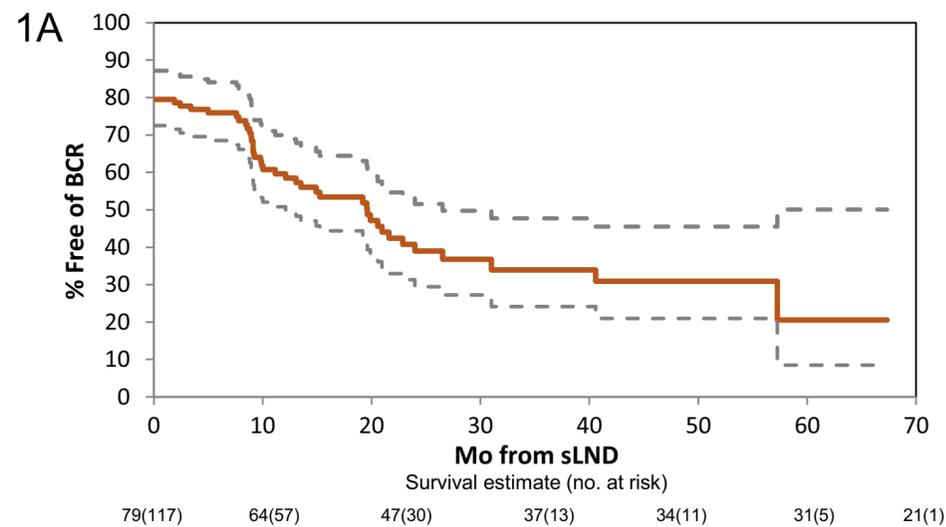
Mid-term Outcomes Following Salvage Lymph Node Dissection for Prostate Cancer Nodal Recurrence Status Post-radical Prostatectomy

Fabio Zattoni^a, Avinash Nehra^a, Christopher R. Murphy^a, Laureano Rangel^b, Lance Mynderse^a, Val Lowe^c, Eugene Kwon^a, R. Jeffrey Karnes^{a,*}

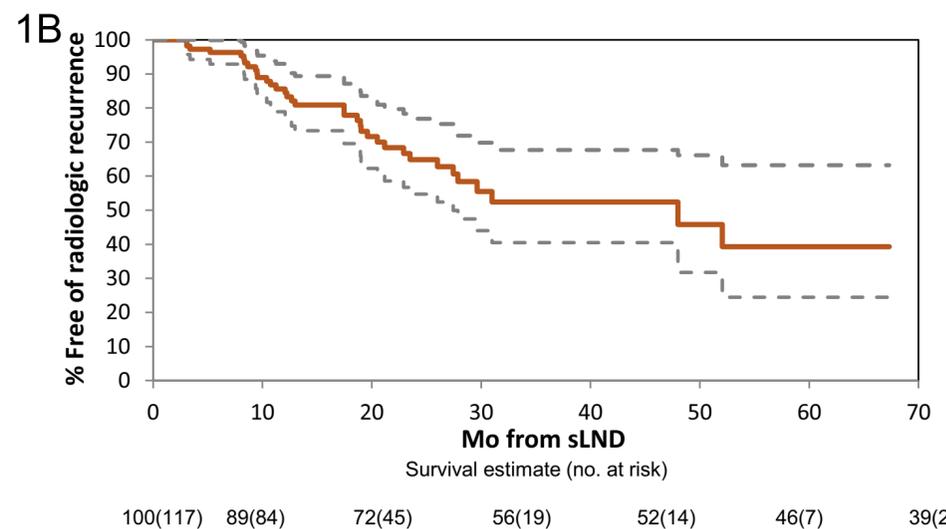
^aDepartment of Urology, Mayo Clinic, Rochester, MN, USA; ^bDepartment of Health Sciences Research, Mayo Clinic, Rochester, MN, USA; ^cDepartment of Radiology, Division of Nuclear Medicine, Mayo Clinic, Rochester, MN, USA

Retrospective (2009-2015)
117 pts BCR- PR
PET- Colina
M Follow up after sLND - 20.2 m

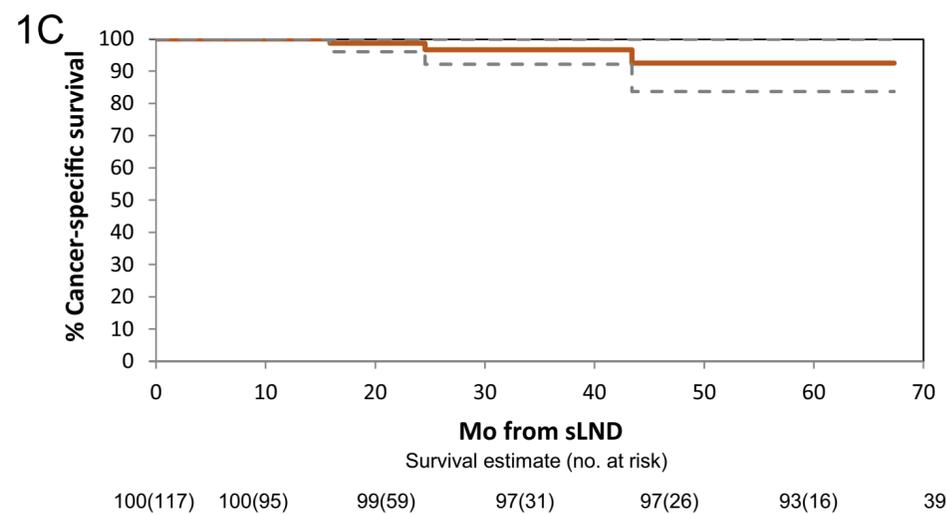
47% cBR and of this group 31% failed



BCR free 5y - 31%



RAR free 5y - 51%



CSS 5y - 97%

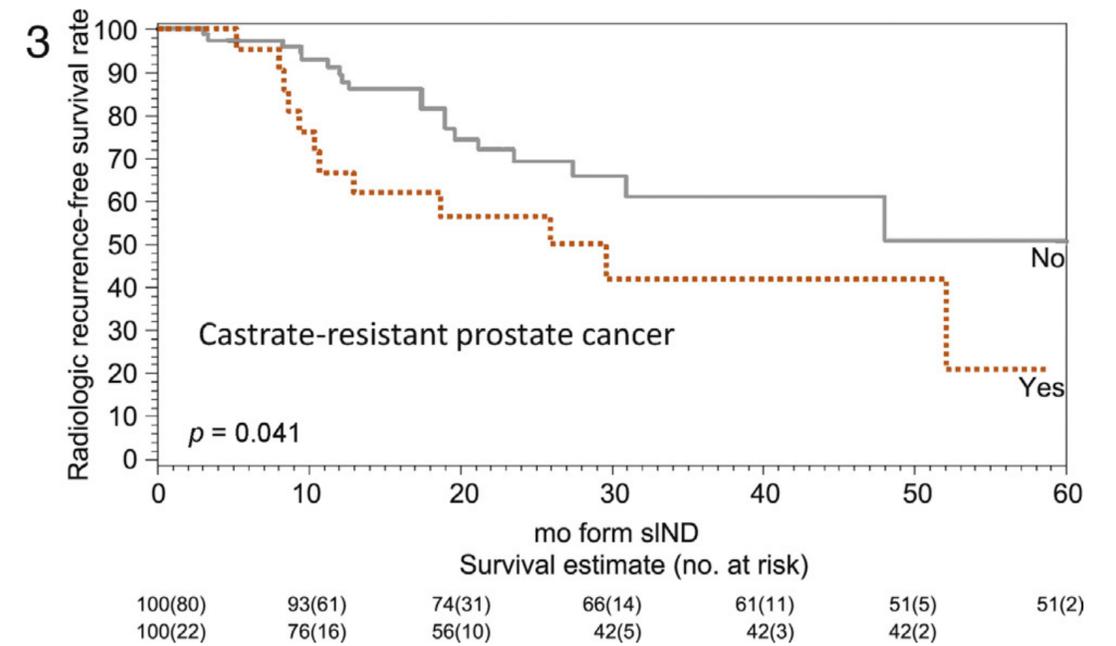
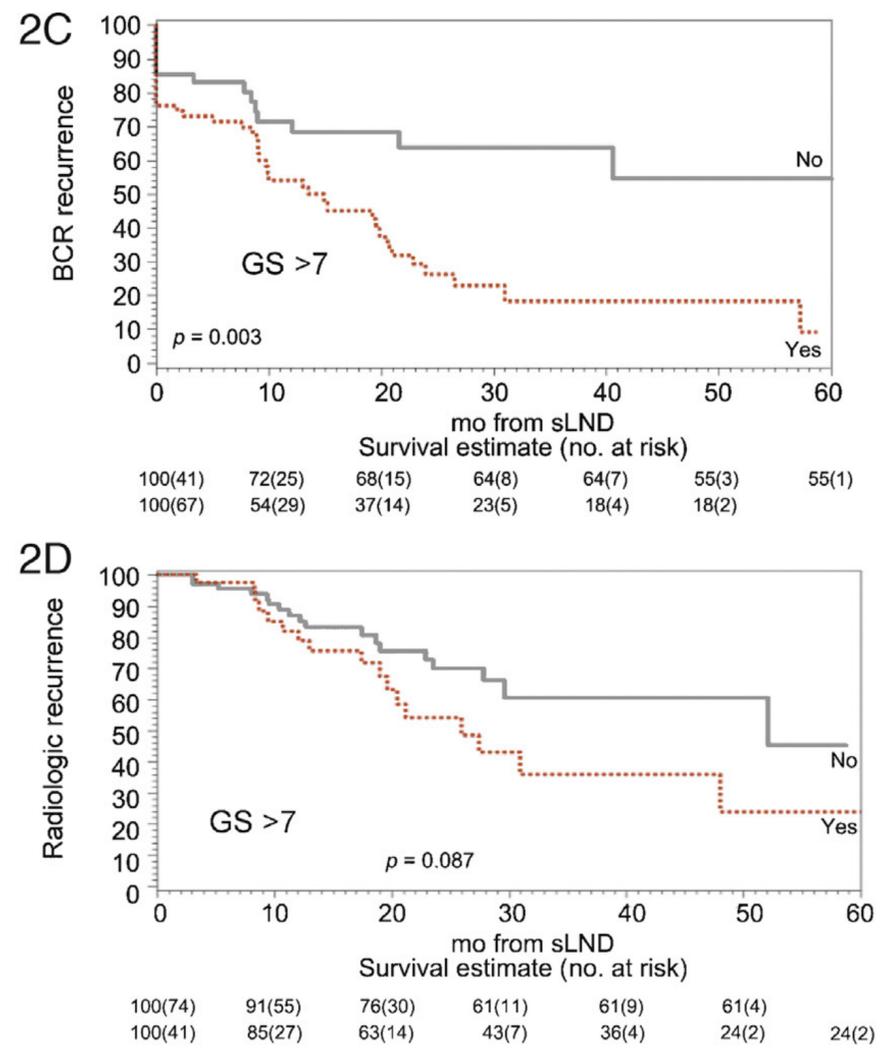
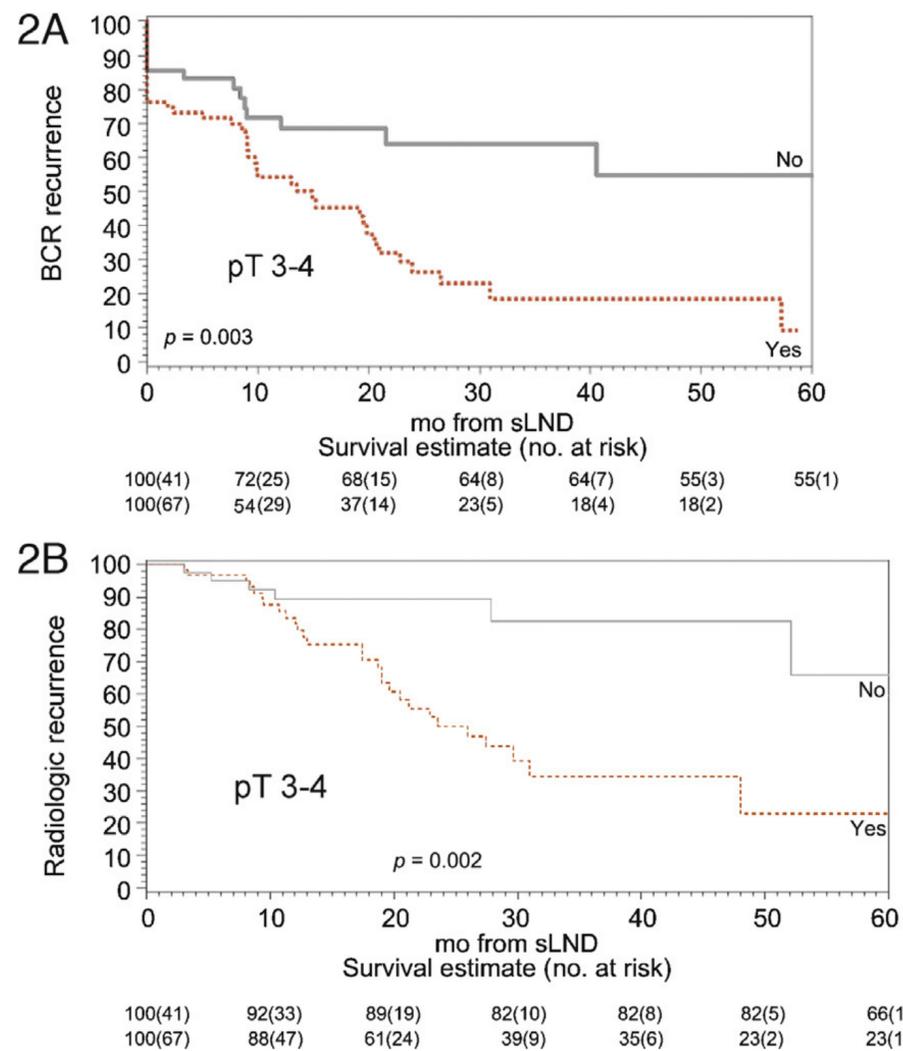
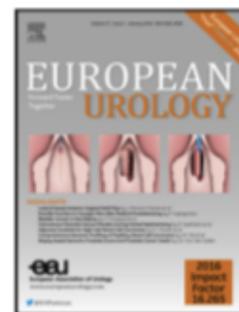


Figure 3 – Radiologic recurrence-free survival for castrate- and non-resistant prostate cancer after salvage lymph node dissection (sLND). A statistically significant difference exists between patients with and without castrate-resistant prostate cancer.

Figure 2 – Biochemical recurrence (BCR) and radiologic recurrence (RAR)-free survival, respectively, for pathological stage (2A and 2B) and Gleason Score (2C and 2D). There is a statistically significant difference for pathological stage within biochemical recurrence and radiologic recurrence. Gleason score is significantly different for biochemical recurrence but not for the radiologic recurrence, likely due to the lack of events.

Gleason at PR and CRPC were predictors of fail in sLND



Prostate Cancer

Identifying the Optimal Candidate for Salvage Lymph Node Dissection for Nodal Recurrence of Prostate Cancer: Results from a Large, Multi-institutional Analysis

Nicola Fossati^a, Nazareno Suardi^a, Giorgio Gandaglia^a, Carlo A. Bravi^a, Matteo Soligo^b, R. Jeffrey Karnes^b, Shahrokh Shariat^c, Antonino Battaglia^d, Wouter Everaerts^d, Steven Joniau^d,

- Retrospective
- **654** Post BCR e sLND
- Pet PSMA e Colina
- **1EP - eCR (early clinical recurrence)**
- 2EP - BCRFS e HTFS
- Median F.up - 30 mo (IR, 16-50)

Table 1 – RP characteristics of 654 patients treated with salvage lymph node dissection for nodal recurrence of prostate cancer

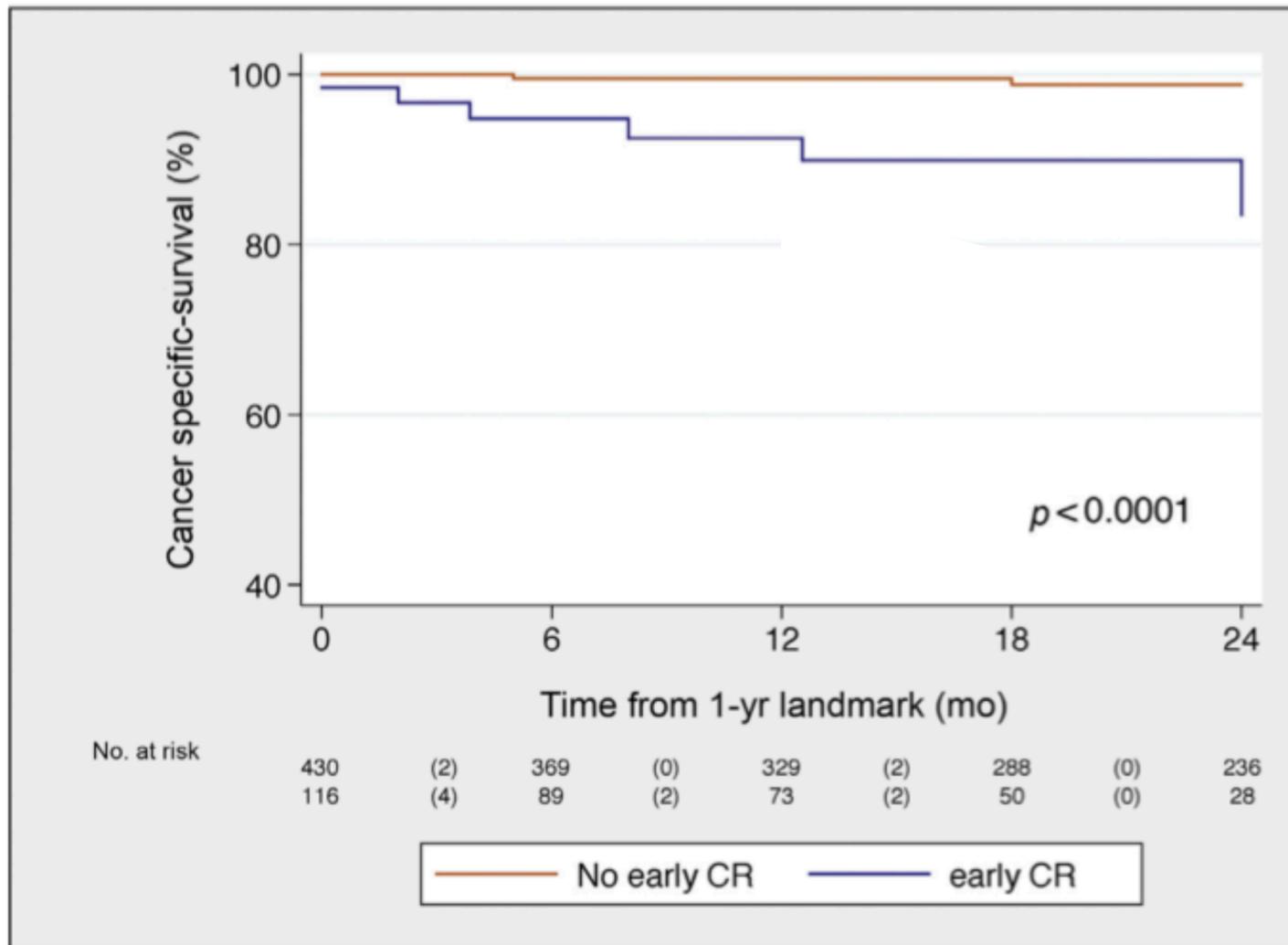
Variable	Overall population (n = 654; 100%)
Age at RP, yr	59 (55–65)
Pre-RP PSA level, ng/ml	8.4 (5.9–13.0)
Pathologic T stage, n (%)	
pT2	210 (32)
pT3a	214 (33)
pT3b	214 (33)
Unknown	16 (2)
Surgical margins, n (%)	
Negative	396 (61)
Positive	232 (35)
Unknown	26 (4)
Gleason grade group, n (%)	
≤3	22 (3)
4	352 (54)
5	280 (43)
Pathologic N stage, n (%)	
pN0	466 (71)
pN1	104 (16)
pNx	84 (13)
Lymph nodes removed at RP	8 (5–14)
Undetectable PSA after RP, n (%)	
No	254 (39)
Yes	284 (43)
Unknown	116 (18)
Post-RP radiation therapy, n (%)	
No	258 (39)
Yes	396 (61)
Type of radiation therapy, n (%)	
No	258 (39)
Adjuvant	56 (9)
Salvage for PSA rising	296 (45)
Salvage for PSA persistence	44 (7)

PSA = prostate-specific antigen; RP = radical prostatectomy.
All values are medians (interquartile range) or frequencies (proportions).

Table 3 – Post-SLND characteristics of 654 patients treated with salvage lymph node dissection for nodal recurrence of prostate cancer

Variable	Overall population (n = 654; 100%)
Lymph nodes removed at SLND	26 (15–38)
Positive lymph nodes at SLND, n (%)	
0	62 (9)
1	150 (23)
2	92 (14)
≥3	350 (54)
PSA after SLND, ng/ml	0.3 (0.0–1.0)
PSA difference (after–pre), ng/ml	–1.4 (–2.8 to –0.3)
PSA response after SLND (<0.2 ng/ml), n (%)	
No	368 (56)
Yes	286 (44)
Undetectable PSA after SLND (<0.1 ng/ml), n (%)	
No	456 (70)
Yes	198 (30)
PSA = prostate-specific antigen; SLND = salvage lymph node dissection. All values are medians (interquartile range) or frequencies (proportions).	

**51% CR at F.up
eCR (1y) - 25%
Median time to progression after sLND - 18mo**



CSM: 20% eCR x 1.4% no eCR - 3y
($p < 0.0001$)

Table 4 – Multivariable Cox regression analysis predicting clinical recurrence after SLND in 654 patients treated for nodal recurrence of prostate cancer

Predictor	HR	95% CI	p value
Gleason grade group			
≤4	1.00	Ref.	–
5	2.04	1.66–2.50	<0.0001
Time from RP to PSA rising, per 6 mo			
	0.98	0.96–0.99	0.025
HT administration at the time of PET/CT scan			
No	1.00	Ref.	–
Yes	1.47	1.19–1.82	0.0005
Retroperitoneum involvement at PET/CT scan			
No	1.00	Ref.	–
Yes	1.24	1.01–1.52	0.038
Positive spots at PET/CT scan			
≤2	1.00	Ref.	–
≥3	1.26	1.05–1.61	0.019
PSA at SLND, ng/ml	1.05	1.04–1.07	<0.0001

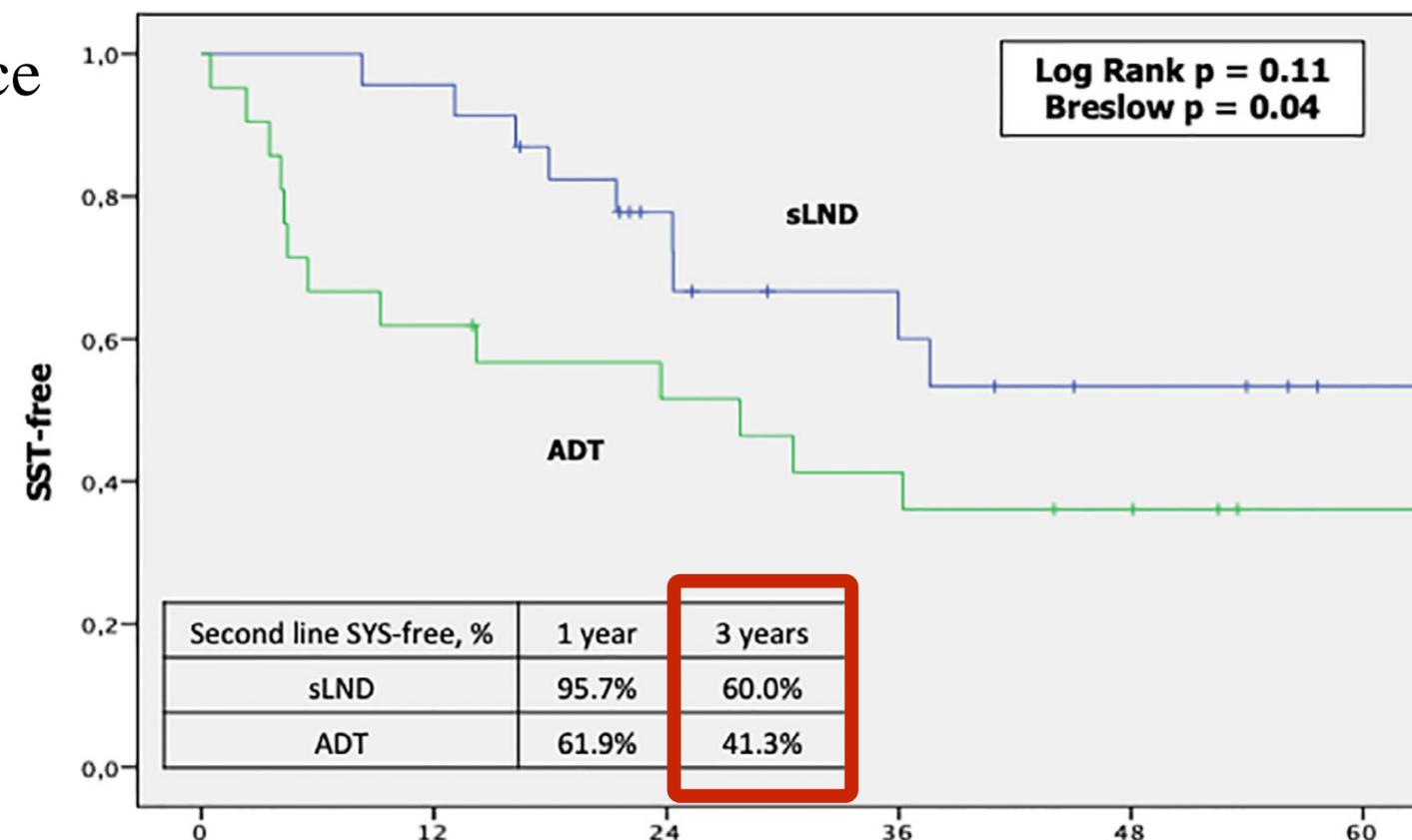
CI = confidence interval; HR = hazard ratio; HT = hormonal therapy; PET/CT = positron emission tomography/computed tomography; PSA = prostate-specific antigen; Ref. = reference; RP = radical prostatectomy; SLND = salvage lymph node dissection.

3y F.up 1/4 of patients free of HT and no BCR

Clinical-Prostate cancer

The role of salvage lymph node dissection in nonmetastatic castration-resistant prostate cancer: A single center experience

- Retrospective
- 43 ptt
- **CRPC**: 2 HT (22) x eSLND (23)
- 11C- choline PET
- Median Fup - 49.3 mo



Inclusion:

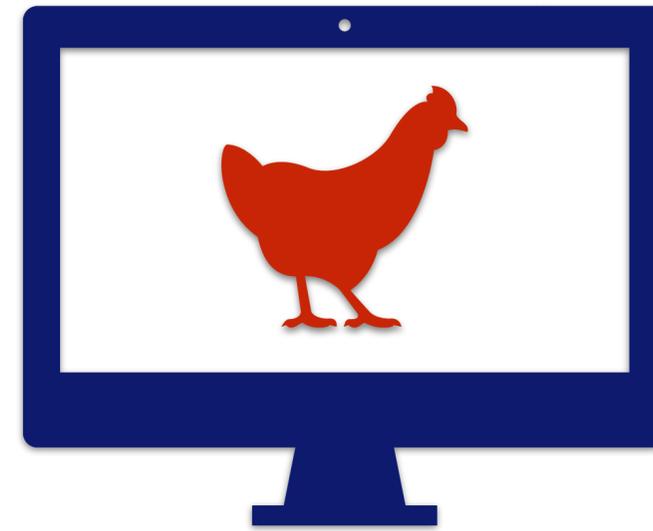
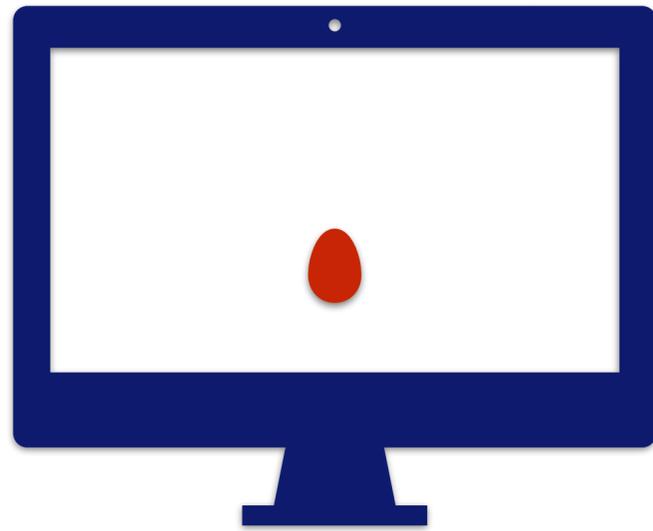
nmCRPC at the time of recurrence

Lymph nodes only recurrence

sLND or second HT as treatment of nodal recurrence

PSA-DT at BR and T stage at RP were associated with RAR e SST

The type of image makes a difference





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Robotic salvage lymph node dissection for nodal-only recurrences after radical prostatectomy: Perioperative and early oncological outcomes



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Retrospective (2013-2017)

36 pts BCR after PR

25 PET-PSMA X 11 PET- Colina

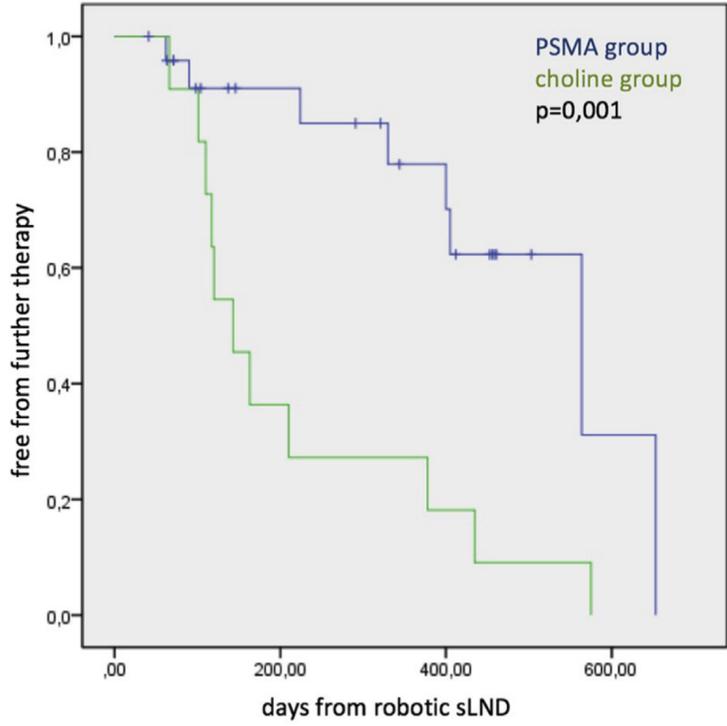
Oncological and preoperative results

Table 3

Early oncological outcomes. To test for significant intergroup differences, Mann-Whitney *U* Test was used for continuous and Chi-square test or Fisher's exact test for categorical variables. ADT = androgen deprivation therapy, cBCR = complete biochemical response (defined as a postoperative PSA-nadir < 0,2 ng/ml), EBRT = extracorporeal beam radiation therapy, IQR = interquartile range, PSA = prostate-specific antigen, sLND = salvage lymph node dissection.

	All patients (n = 36)	PSMA-group (n = 25)	Choline-group (n = 11)	Statistics (intergroup difference, PSMA vs. choline)
years of follow up				
median [IQR] [range]	1.5 [1;3.3] [0.1;4.4]	1.2 [0.3;1.5] [0.1;3]	4 [3.5;4.3] [2.6;4.4]	p < 0.001
cBCR	13/36 (36%)	11/25 (44%)	2/11 (18%)	p = 0.259
relative PSA-change (%)				
median [IQR] [range]				p = 0,015 (all groups)
all groups	-49.5 [-74;-24.5] [-100;95]	-57 [-92.5;-34.5] [-100;58]	10 [-59;80] [-91;95]	
targeted	-28 [-91;80] [-100;95]	-60 [-100;-28] [-100;-28]	+58 [-27.5; +87.5] [-91; +95]	
unilateral extended	-57 [-77;-44] [-100;52]	-57 [-84.5;-46] [-100;52]	-30.5 [-71;10] [-71;10]	
bilateral extended	-41 [-64;-22] [-99;92]	-43 [-93;-27] [-99;58]	-29 [-52;80.5] [-59;92]	
b.e. + retroperitoneal	-60 [-98;-57] [-98;-57]	-60 [-98;-57] [-98;-57]	/	
further therapy initiated				
all groups	19/36 (53%)	8/25 (32%)	11/11 (100%)	p < 0,001 (all groups)
targeted	5/7 (71%)	1/3 (33%)	4/4 (100%)	
unilateral extended	3/11 (27%)	1/9 (11%)	2/2 (100%)	
bilateral extended	10/15 (67%)	5/10 (50%)	5/5 (100%)	
b.e. + retroperitoneal	1/3 (33%)	1/3 (33%)	/	
time to further therapy (months)				
median [IQR] [range]	6.9 [3.6;13.3] [2;21.5]	12 [5.2;16] [2;21.5]	4.7 [3.6;12.4] [2.2;18.9]	p = 0,322
kind of further therapy				
ADT	13	4	9	/
EBRT	3	2	1	
ADT + EBRT	1	1	0	
Abiraterone	1	0	1	
re-sLND	1	1	0	

B



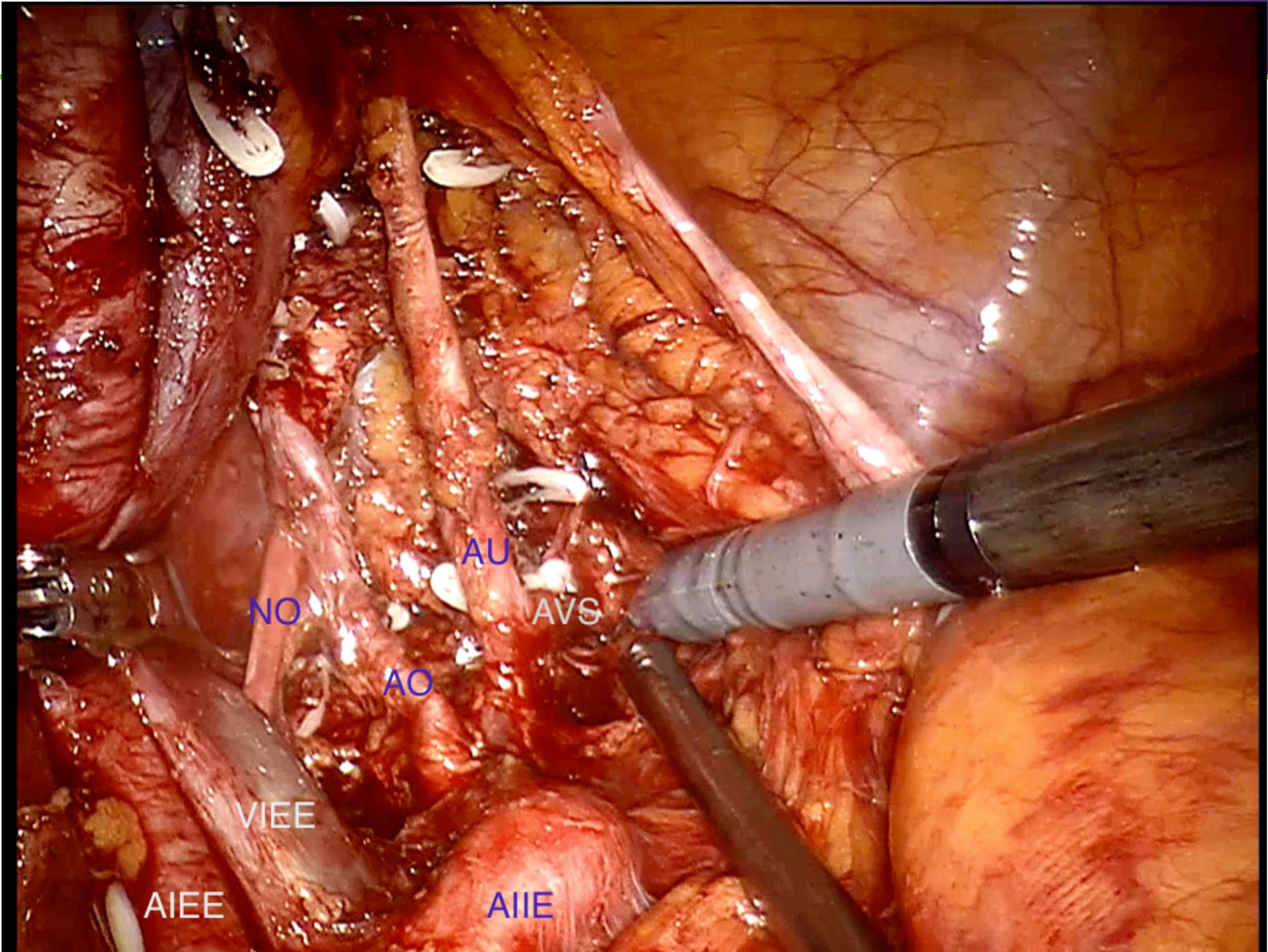
Time free from further therapy

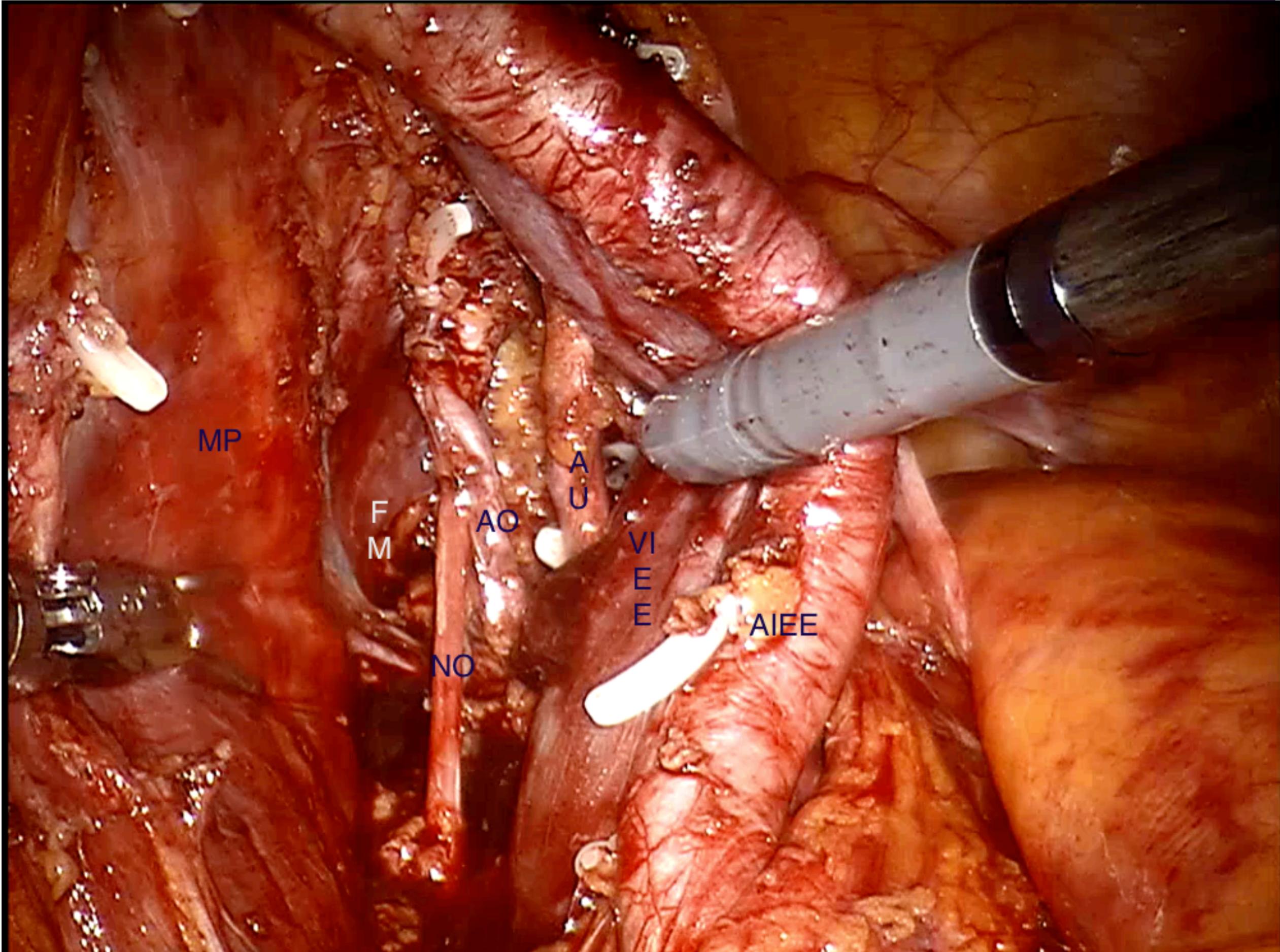
	PSMA	Colina
sLND	25	11
cBR	44%	18%
Time to ST	12 mo	4,7 mo

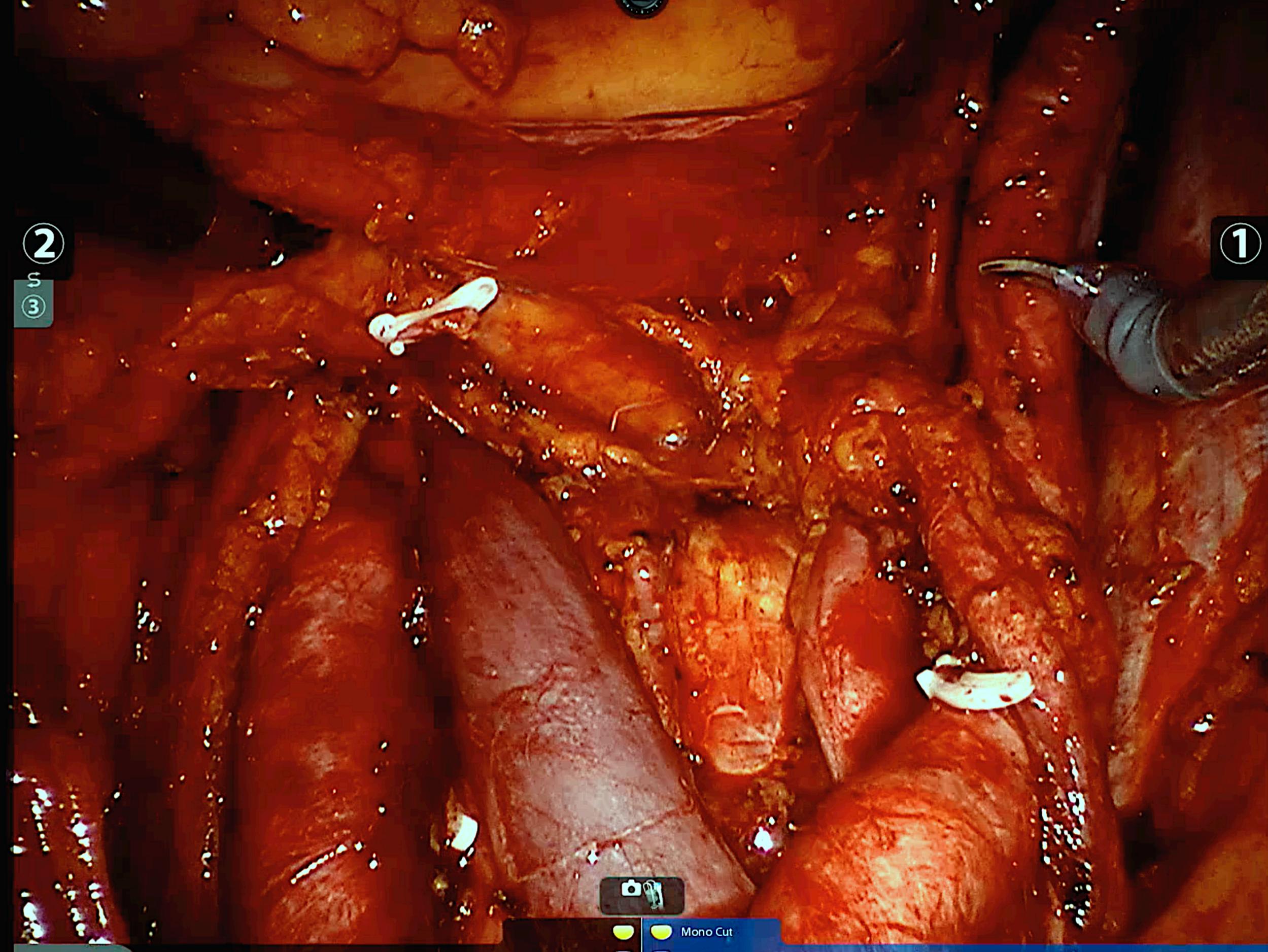
Personal Experience

PCT	Data	Age	Lado	tempo	Sang	TTO	Gleason pre	Data PTR	Linf PTR	Data RT	PSA	N+ PET	Cadeia	N Linf.	N. Linf Pos	1 PSA pos
1	9-set	66	esq	160	50	PTR + RT	4+4	2006	5	2012	1.4	1	OBE	30	2	0,01
2	2-jun	69	esq	180	100	PTR	4+3	2015	6	---	1.0	1	OBE	10	1	0,01
3	7-mar	45	bilat	240	50	PTR	3+4	2016	0	---	0,4	2	MESORETO	35	1	0,35
4	08/20/2017	68	dir	250	20	PTR + RT	4+5	2014	5	2015	0,8	2	p.sacra	15	1	0,09
5	10-out	73	dir	120	50	PTR	4+5	2015	3	---	2,8	2	IED	33	2	1,7
6	12/08/2017	57	bil	140	50	PTR+RT	4+5	2013	2	2014	2,2	5	ICbil+IID	35	6	0,5
7	2-fev	65	dir	150	50	PTR+RT	4+3	2013	5	2015	0,25	1	IID	20	1	0,01
8	2-mai	47	dir	100	20	PTR	4+5	2017	20	---	0,81	2	ICD+IID	19	4	14,0
9	1-out	70	esq	60	10	PTR + RT	3+3	2006	4	2008	0,6	1	IIE	26	3	0,43
10	11/23/2018	68	esq	70	10	PTR	4+4	2015	0	---	1,9	2	IIE	20	2	0,7
11	5-dez	73	dir	60	10	PTR	3+3	2012	0	---	0,8	1	IED	28	1	0,01
12	01/30/2019	75	mesoreto	60	10	PTR+RT	4+3	2014	5	2016	1,6	1	MESORETO	15	1	<0,01
13	25-jun	77	esq	90	10	PTR+RT	4+3	2009	3	2015	1.0	2	IIE+ICE	30	2	0,4
14	18-dez	50	bila	70	20	PTR	4+3	2016	1	--	0,5	2	IED	30	2	0,7
15	10/02/2019	60	ESQ	60	10	PTR+RT	4+4	2013	4	2013	1,0	1	IED	25	1	<0,09
16	17-mai	62	DIR	80	30	PTR	3+3	2017	8	---	0,6	1	IED	26	1	0,01
17	20-jun	50	mesoreto	60	30	PTR	3+4	2016	0	--	0,5	2	MESORETO	30	1	0.4
18	17-ago	65	ESQ	60	20	PTR	3+4	205	0	---	0,6	1	IEE	25	1	0,5
MEDIAS		63		112	31				4			2		25	2	

All PSMA PET
No > Grade III complications
No ST pre SLND
Mean Age- 63 Y
Median operation time- 112 MIN
EBL - 30 ML
Mean LN RP- 4
Mean N+ PET - 2
Mean N sLND - 25
N+ sLND - 2
cBR- 44%
BCRFS 6 Mo- 30% (5 cases)







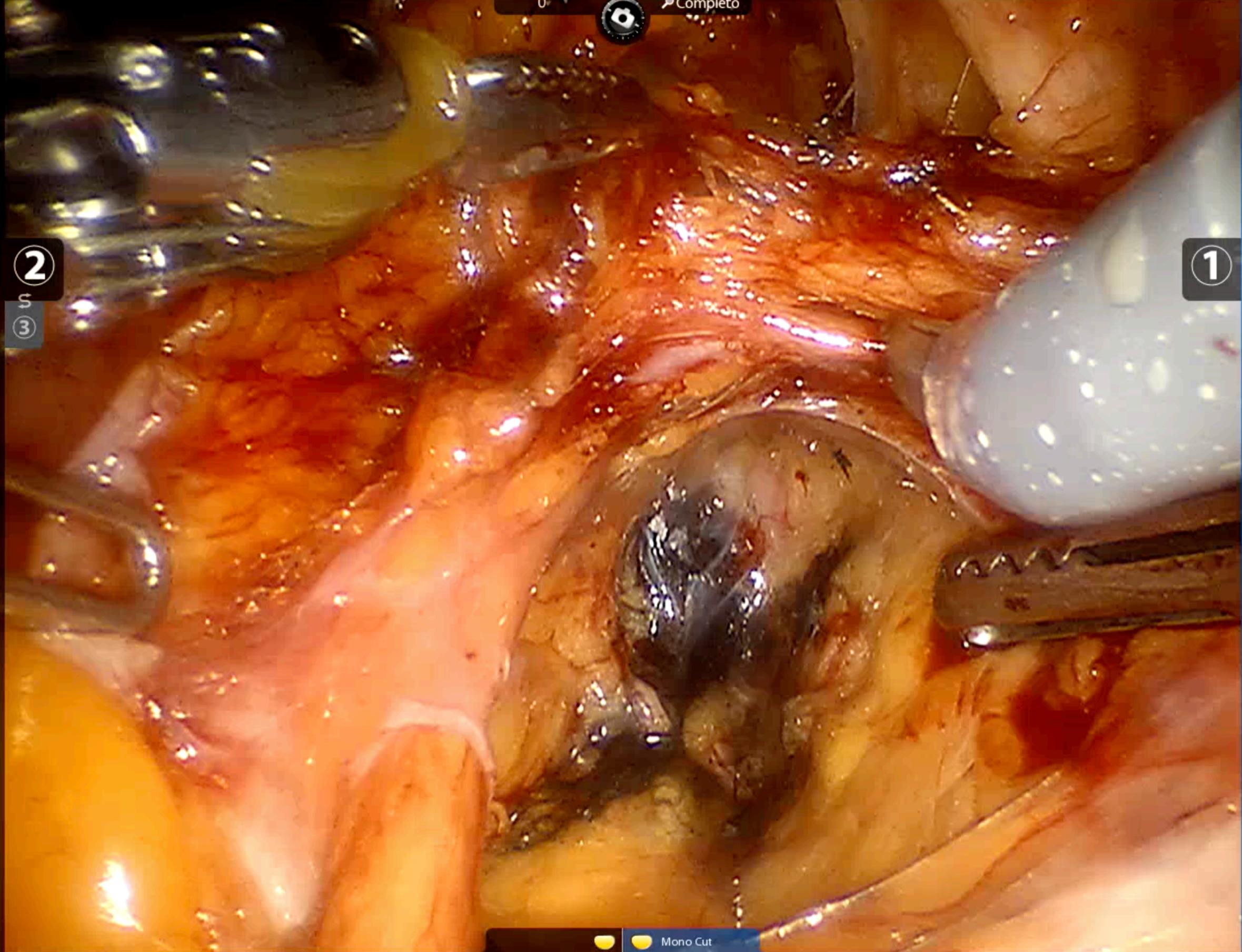
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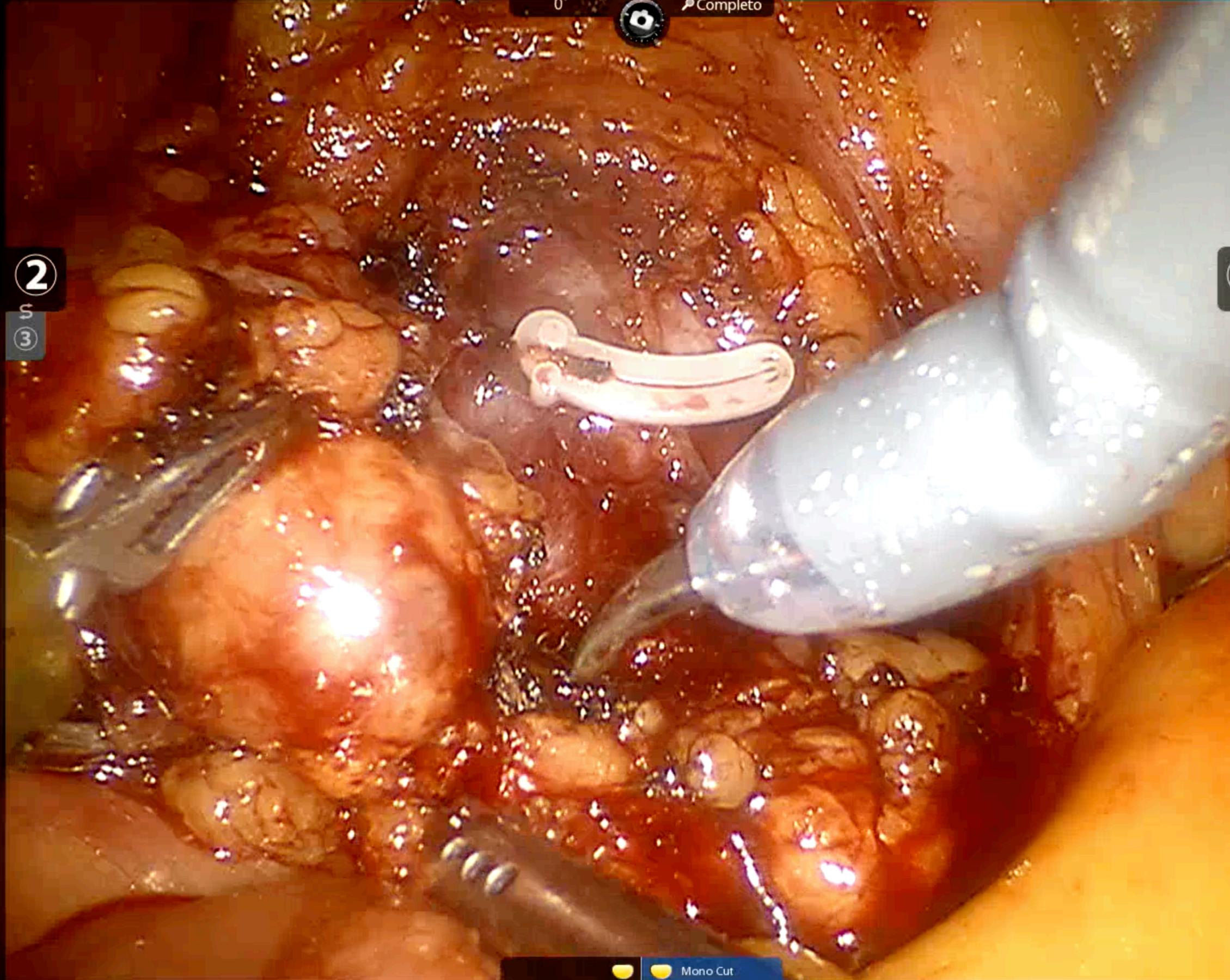


Mono Cut



2
S
3

1



2
3

0 Completo

Prograsp Forceps



Maryland Bipolar Forceps

Bipolar



Mono Cut

Mono Coag

Monopolar Curved Scissors

	BCRFS	cBR	Cost	Complications > G3
sLND	31%-45% / 5y ¹	30% - 73% ²	USD \$ 6.752 ³	< 10% ⁴
Abiraterone			USD \$ 120.000 / 1y⁵	47%⁶
RT			USD \$ 27.145 to 57.706⁷	< 10% ⁸
ADT			USD \$ 3.450/1y ⁹	33%¹⁰
Docetaxel			USD \$ 54.816 / 12 cycles¹¹	29,6%¹²
Apalutamide			USD \$ 94.392 / 1y¹³	45,1% - Death 10 Pt¹⁴

1- J Urol, 2015 Jan 193(1); Eur Urol 2018 Ploussard et al

2- Eur Urol 2016 Montorsi et al; J Urol, 2015 Jan 193(1)

3- Eur Urol 2010 Mar, (57), 453-458.

4- Eur Urol 2018 Ploussard et al.

5- JCO, mar 2019, 155-155

6- N Engl J Med 2017; 377:338-351

7- Cancer. 2016 Aug 15; 122(16): 2496-2504

8- J Clin Oncol. 2018 Feb 10;36(5):446-453

9- Urol Oncol. 2019 Oct;37(10):688-695

10- N Engl J Med 2017; 377:338-351

11- JCO, mar 2019, 155-155

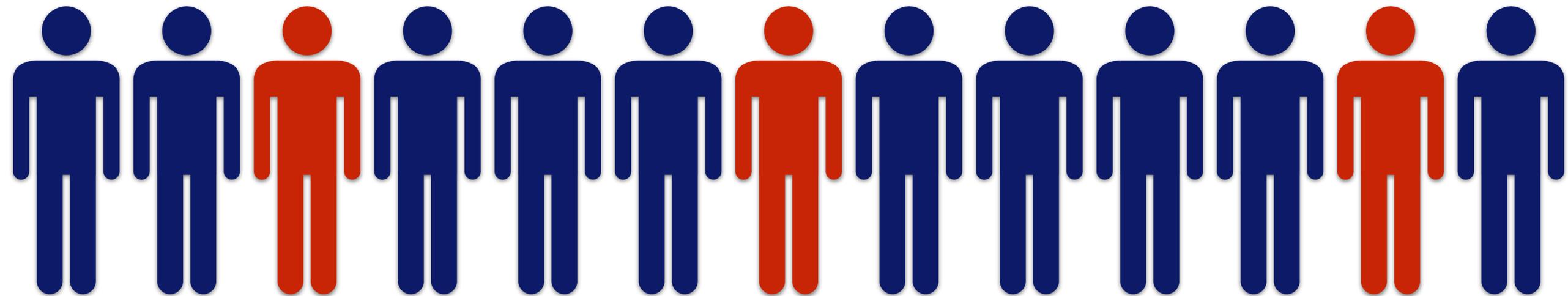
12- N engl j med 373;8 August 20, 2015

13- Smith MR, et al. N Engl J Med. 2018;378(15):1408-1418

14- N engl j med 378;15 April 12, 2018

sLND

Who is the ideal patient?



Best Candidates

PSA < 4 ng/ml

Pelvic restricted disease

≤ 2 LN+

Gleason ≤ 7

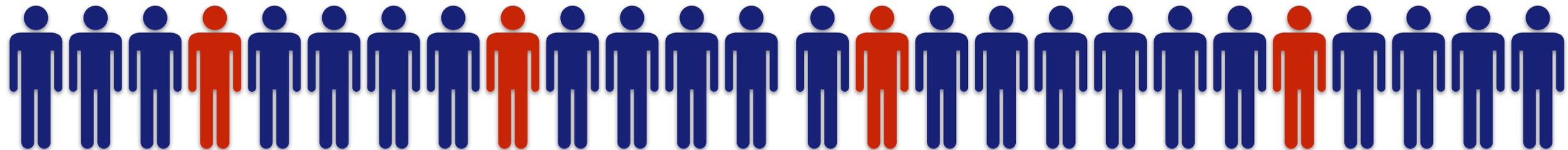
No previous ADT

PSA DT > 10 mo

30-50% cBR

BCFS - 30-40% - 5 y

Among cBR 70% keep response 3y



I do Salvage Lymph node dissection in selected cases.

- Because the results already presented;
- Produce pathologic data - Pet is not perfect - Early systemic therapy?
- Can prevent metastasis from metastasis ??
- Is the cheapest local treatment;
- It's feasible even in irradiated patients;
- Procedure with low complications rate;
- It is a procedure that can benefit selected and well-informed patients;
- The goal of sLND in most series is not to cure but to delay systemic therapies. BCRFS is the main marker of cancer outcome.





Thank you!

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