Is systematic lymphadenectomy mandatory in the surgical management of non-endometriod endometrial cancer?

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The 4th MEMAGO CONGRESS

Middle East & Mediterranean Association of Gynecological Oncology

Why Lymphadenectomy?

Complication

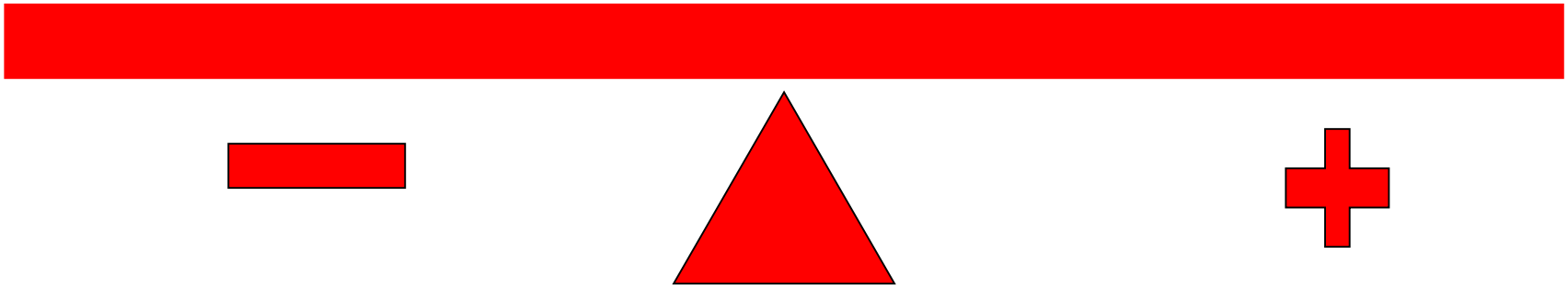
Cost

Correct staging

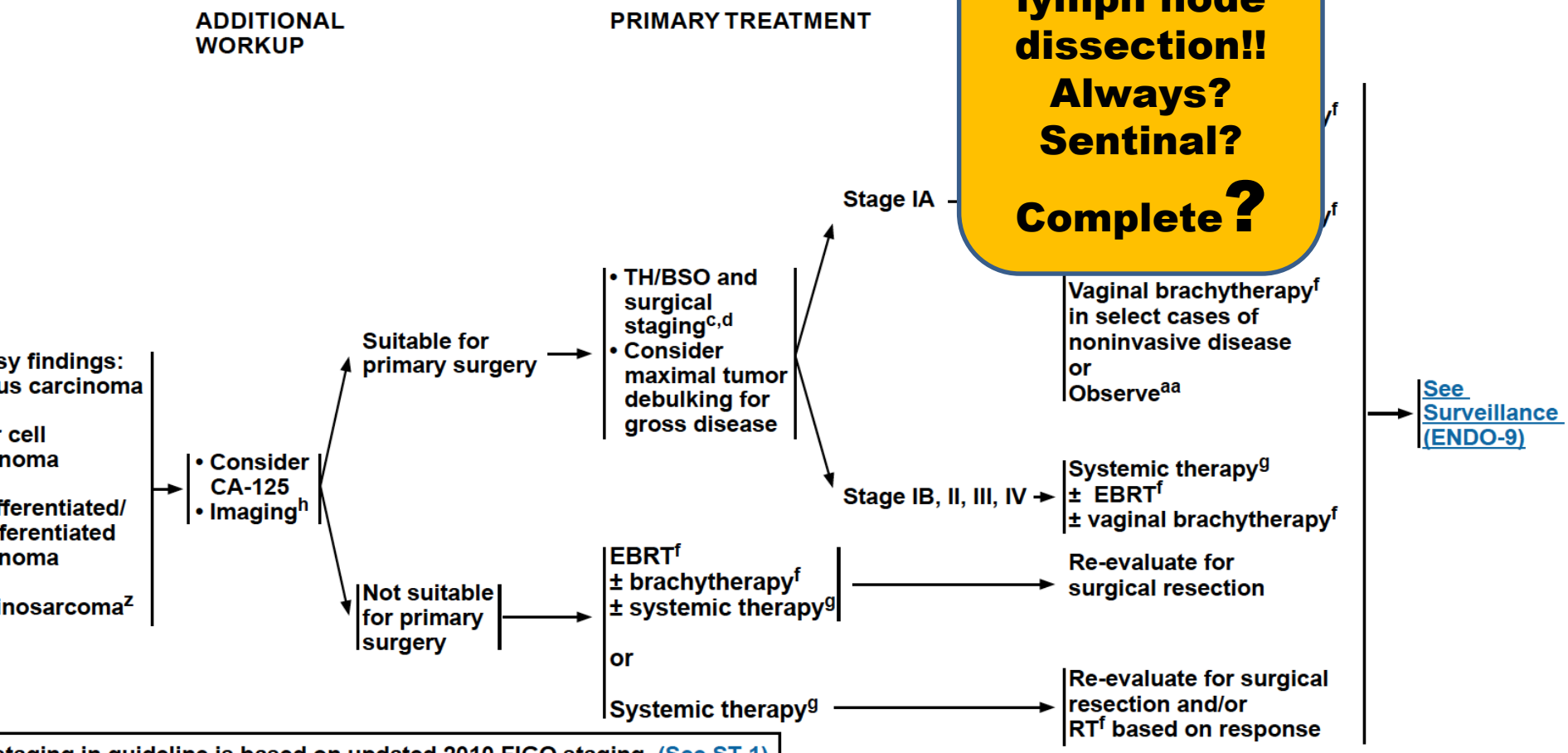
Choice of adjuvan teratment

Therapeutic effect ?

Prognosis



Pelvic and paraaortic lymph node dissection!! Always? Sentinal? Complete?



staging in guideline is based on updated 2010 FIGO staging. (See ST-1)

mally invasive surgery (MIS) is the preferred approach when technically feasible. See Principles of Evaluation and Surgical Staging (ENDO-C).
degree of surgical staging to assess disease status depends on intraoperative findings. Multidisciplinary expertise is recommended. See Principles of Evaluation Surgical Staging (ENDO-C).
Principles of Radiation Therapy for Uterine Neoplasms (UN-A).
Systemic Therapy for Recurrent, Metastatic, or High-Risk Disease (ENDO-D).
Principles of Imaging (ENDO-B).
known as malignant mixed mesodermal tumor or malignant mixed Müllerian tumor.
servation only for select patients with no residual serous or clear cell carcinoma in the hysterectomy specimen.

Non-Endometrioid-No Gross Disease**
Rate of Lymph Node Invasion

Type 2 N=72 /281 29/72 40%LN+

	Myo<50%	Myo≥50%
Pelvic	12.5%	38%
Paraaortic	13%	25%
Isolated Paraaortic	*3%	4%

MAYO CLINIC

Mariani, 2008, GO & PA Metastasis

Mariani, 2008, GO & PA Metastasis

N=281 median PLN=36, PALN= 17
PALNmetastasis:

LN (+) n=63	%22
LN(+) ------PALN (+)	%67
PALN(+) above IMA (+)	%77
Above IMA (+) ---ipsi PA & common iliac (+)	%60 & %71
Gonadal vein or soft tissue met. (n=7/25 PA(+)	%28

USPC - CC

Systematic P PA LND

- USPC-CC %3-10
- 72% extrauterine involvement in clinical stage I
- Pelvic LN met %41.9
- Paraaortic LN met %43.3
- Without myo. İnv. 25% LN metastasis

Endometrial cancer: Studies on lymphadenectomy

Creasman et al 1987, GOG 33

- Clinicopathologic assessment of 933 evaluable patients
- Low rate of positive nodes in low grade, endometrial only disease (1-3%)

CONSORT (Italian study) 2008

- 541 women with clinical stage I randomized to LND vs. not.
- No difference in adjuvant treatment (69% vs 65%, P=0.07 PLND vs no PLND)
- No difference in 5 yr DFS (81% vs 82%, P=0.68), PLND vs no PLND
- No difference in 5 yr OS (86% vs 90%, P=0.50), PLND vs no PLND

ASTEC/EN.5 2009

- 1408 women with clinical stage I endometrial cancer
- Randomized to Hyst/BSO vs. Hyst BSO +LND
- In PLND arm, 9% had involved nodes (median 12 nodes removed). 5-year OS no PLND 81% vs PLND 80% (NS)

- **40% of the patients were low-risk**
- **PaLND was not performed,**
- **Number of lymph nodes removed was low (median: 12 ASTEC trial).**
- **Not standart adjuvan treatment**
- **Short term follow-up**

Lymphadenectomy & Survival & Early Stage

Patients, n	Inclusion criteria	Outcome	Extent of benefit	Ref
649	Clinical stage I–II, excluding sarcomas	Survival benefit for multiple-site (≥4 sites) pelvic-node sampling vs no node sampling	High-risk disease, p=0·0006; low-risk disease, p=0·026 for overall survival	27
509	Clinical stage I–IIA	Survival benefit in patients who underwent a more extensive lymphadenectomy	5-year survival 79% (≤11 nodes) vs 88% (>11 nodes); p=0·013	29
12 333	FIGO stages I–IV	Survival benefit associated with a more extensive lymph-node resection (1, 2–5, 6–10, 11–20, and >20 nodes) in intermediate-risk and high-risk patients (stage IB, grade 3; stage IC and II–IV, all grades)	5-year survival increased with extent of node dissection: 75·3%, 81·5%, 84·1%, 85·3%, and 86·8%, respectively	34
137	High-risk disease, excluding stage IV	Survival benefit in those who received a more extensive para-aortic lymph-node dissection	5-year survival 71% (<5 nodes) vs 85% (≥5 nodes); p=0·06	37
467	FIGO stages I–II, high-risk histology	Survival benefit in high-risk histologies after a more extensive lypmhadenectomy	5-year overall survival 64% (≤11 nodes) vs 90% (≥12 nodes); p<0·001	44

Table 2: Studies showing a survival benefit associated with removing benign lymph nodes

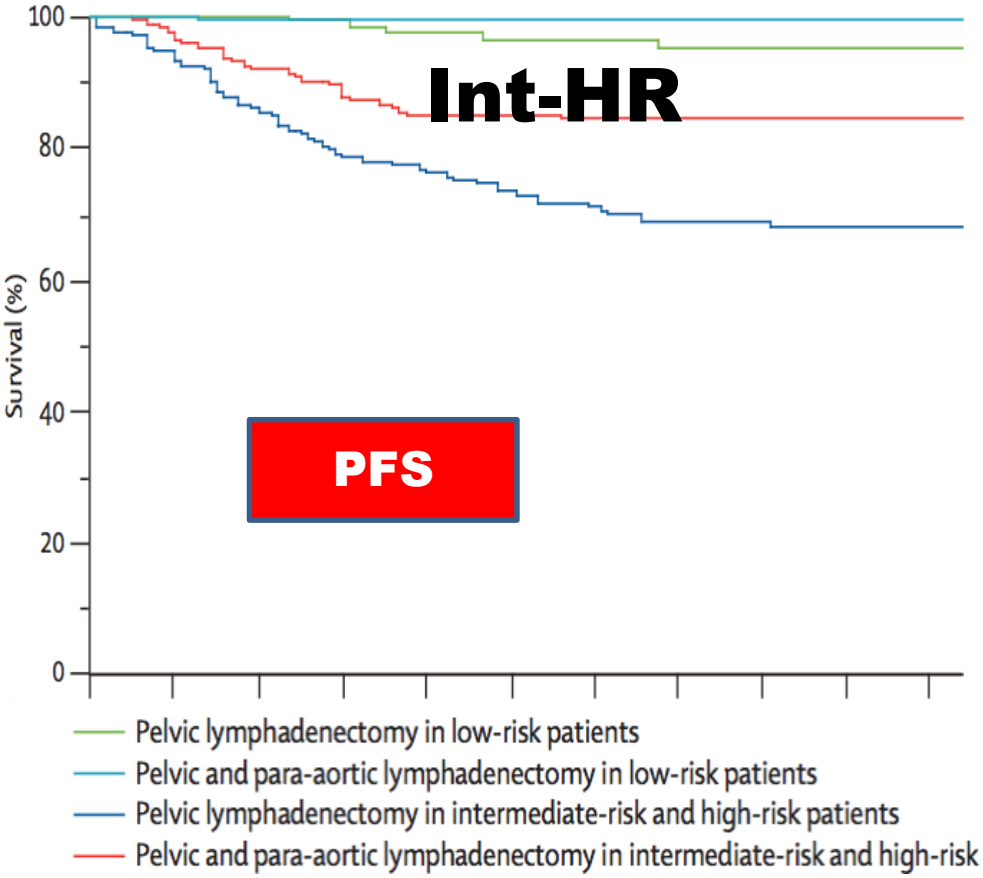
Survival effect of para-aortic lymphadenectomy in endometrial cancer (SEPAL study): a retrospective cohort analysis

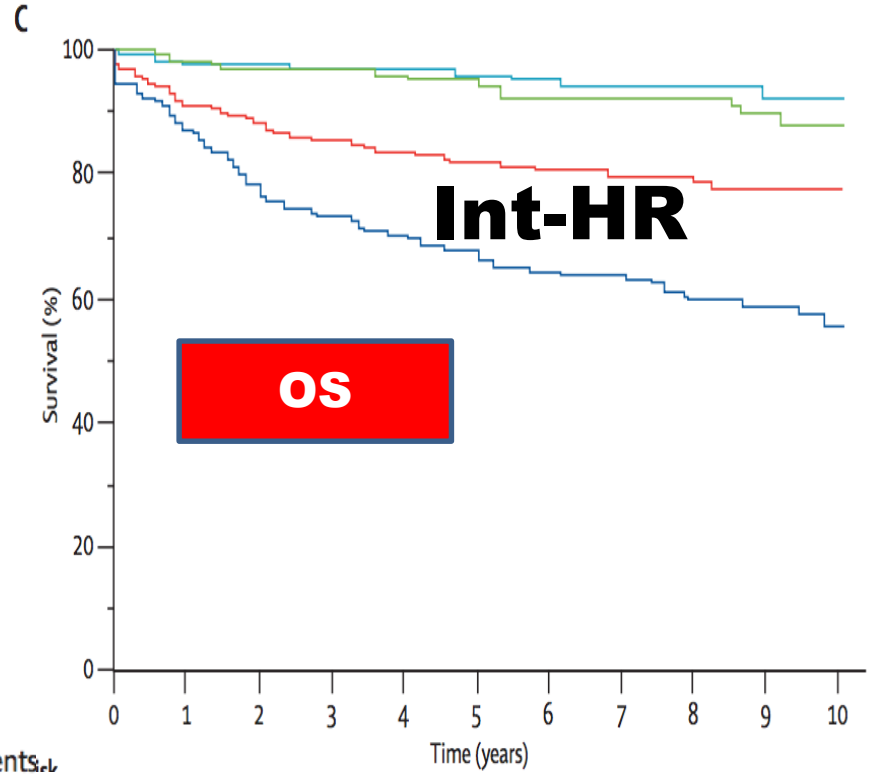
Lancet 2010; 375: 1165–72

This online publication has been corrected.
The corrected version first appeared at TheLancet.com on August 20, 2010

N:671
325 Pelvic LND
346 Pelvic + PA LND

Low risk: No Benefit
Int-High risk: Benefit





- **Retrospective study**
- **Low prevalence of non-endometrioid EC**
- **Relative median young age**

Phase III trial to confirm the superiority of pelvic and para-aortic lymphadenectomy to pelvic lymphadenectomy alone for endometrial cancer: Japan Clinical Oncology Group Study 1412 (SEPAL-P3)

Hidemichi Watari[1,*], Hiroshi Katayama[2], Taro Shibata[2], Kimio Ushijima[3],

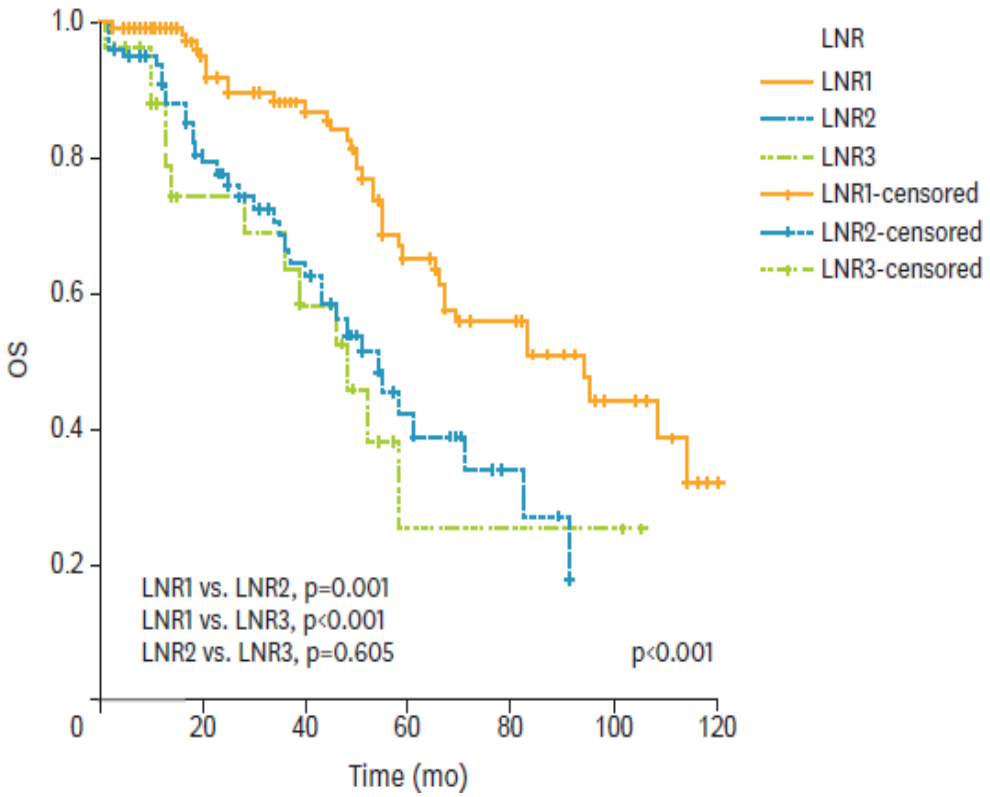
Japanese Journal of Clinical Oncology, 2017,

- **JCOG1412.**
- **Phase III trial to confirm the superiority of pelvic and para-aortic lymphadenectomy to pelvic lymphadenectomy alone.**

Impact of lymph node ratio on survival in stage III ovarian high-grade serous cancer: a Turkish Gynecologic Oncology Group study

Ali AYHAN JGO 2018

LNR1 (<10%),
LNR2 (10%≤LNR<50%),
LNR3 (≥50%).

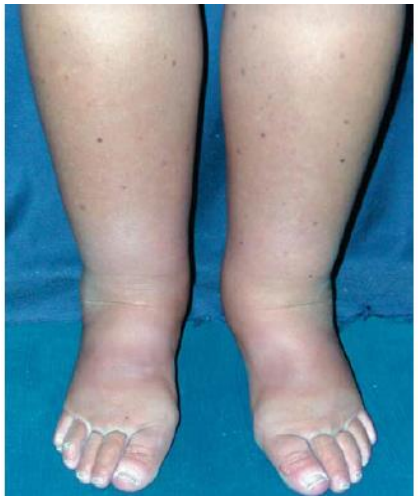


5-year OS 65.1% LNR1, 42.5% LNR2, 25.6% LNR3, p<0.001).
LNR≥0.50 were 2.7 times more likely to die of their tumors

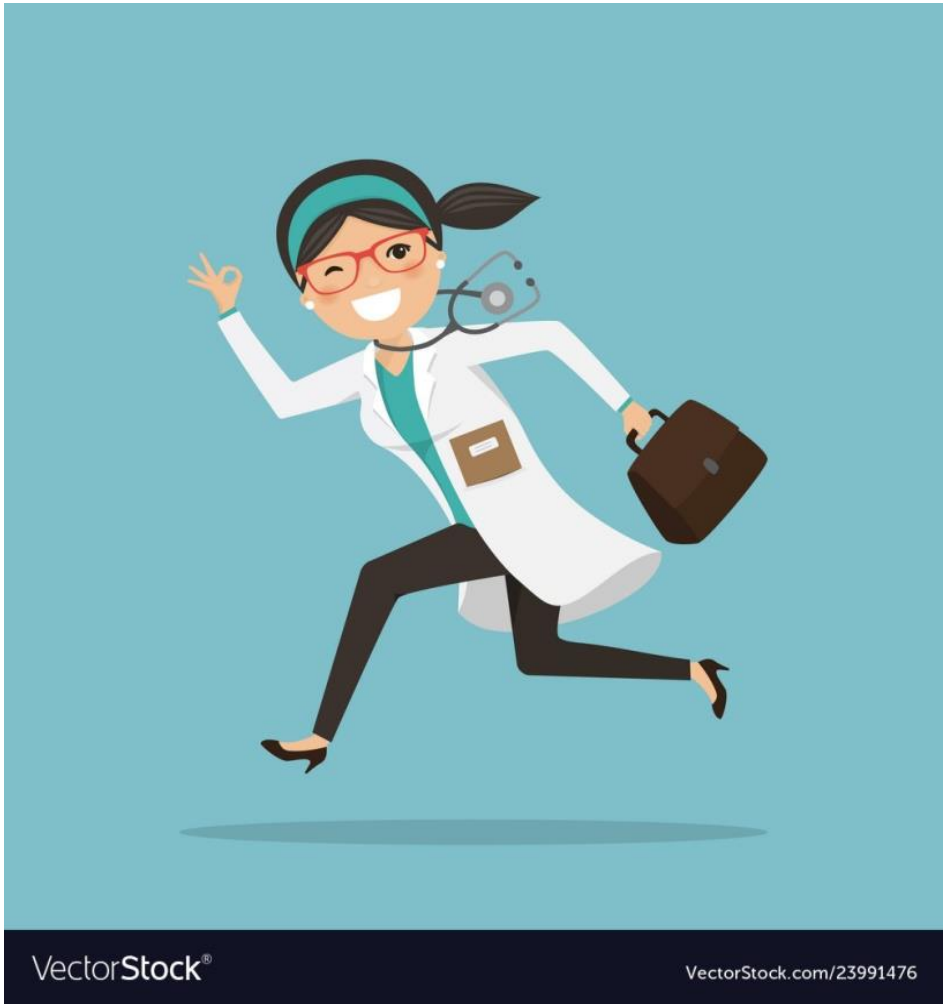
Complications of LND

Operative time
Vascular injury
Lymphocelle
Blood loss
Lymphedema

Sentinel LN



Sentinel lymph node...



Detection rate and diagnostic accuracy of sentinel-nodebiopsy in early stage endometrial cancer: a prospectivemulticentre study (SENTI-ENDO)
Marcos Ballester LANCET 2011

- 2007- 2009,
- 18 /125 HR pts.
- Sensitivity 84%
- NPV 97%
- 2/3 FN results type 2 EC

SLN PROCEDURE İS NOT RELEVANT FOR THIS HYSTOLOGY

Relevance of sentinel lymph node procedure for patients with high-risk endometrial cancer

Iptissem Naoura Gynecol. Oncol. 2015

- **RT /multi-center**
- **N= 34/180**
- **BDR 63%**
- **41/180 (22%) LN+.**
- **Ultrastaging detected metastases undiagnosed by conventional histology 17/41 pts. (41%).**
- **FNR LR 6% IR 2.3%**
- **FNR HR 20%**

p=0.0008

A comparison of sentinel lymph node biopsy to lymphadenectomy for endometrial cancer staging (FIRES trial): a multicentre, prospective, cohort study

Emma C Rossi, Lancet ONCOL 2017

	Patients
Final pathology (postoperative grade) (n=356)*	
Endometrioid grade	292 (82%)
Grade 1	152 (43%)
Grade 2	102 (29%)
Grade 3	38 (11%)
Serous	41 (12%)
Carcinosarcoma	13 (4%)
Clear cell	6 (2%)
Other	4 (1%)
Postoperative stage (n=344)†	
IA	228 (66%)
IB	47 (14%)
II	15 (4%)
IIIA	10 (3%)
IIIB	0
IIIC	41 (12%)
IV	3 (1%)

	Patients (n=340)
Pelvic lymphadenectomy	340 (100%)
Pelvic and para-aortic lymphadenectomy	196 (58%)
Successful mapping of sentinel lymph nodes	293 (86%)
Bilateral mapping	177 (52%)
Para-aortic sentinel lymph node detected	81 (23%)
Isolated para-aortic sentinel lymph node detected	3 (<1%)
Median number of sentinel lymph nodes removed	2 (0–20)
Mean number of total nodes removed	19 (10·3; 1–61)

Data are n (%), median (range), or mean (SD; range).

SURGICAL RESULTS IN PTS. WHO HAD PELVIC LND

CLINICAL PATHOLOGICAL FEATURES

N=64/340

TYPE 2 EC

- 14%HAD NO SUCCESSFULLY MAPPED
- 52% BİLATERAL MAPPING
- 34% HAD NO MAPPING ON A HEMI PELVIS RECEIVED SIDE-SPECIFIC LND

- **Sensitivity 97.2%**
- **FNR 2.7%**
- **NPV 99.6%**

- **54% (19/35) metastasis only identified on ultra staging**

- **Failed mapping were excluded**
- **Feasibility SLN mapping HR pts. was not evaluated separately**

MD Anderson :High Risk 101 pts & G3, USPC, CC, CS

A prospective validation study of sentinel lymph node mapping for high-risk endometrial cancer
Pamela T. SolimanT. Gynecol oncol 2017

- **PT 2013-2016**
- **N=101/123 PET/CT**
- **SLN biopsy / LND**
- **BDR 58%, .**
- **Sensitivity 95%**
- **FNR 5**

MSKCC /MAYO 2017 & SLN-A vs Systematic LND

Comparison of a sentinel lymph node mapping algorithm and comprehensive lymphadenectomy in the detection of stage IIIC endometrial carcinoma at higher risk for nodal disease

Jennifer A. Ducie [a], Ane Gerda Zahl Eriksson [a,1], Narisha Ali [a], Michaela E. McGree [b], Amy L.Weaver [b], Giorgio Bogani [c], William A. Cliby [d], Sean C. Dowdy [d], Jamie N. Bakkum-Gamez [d], Robert A. Soslowe,[f], Gary L. Keeney [g], Nadeem R. Abu-Rustuma,[h], Andrea Mariani [d], Mario M. Leitao Jr [a,h,*]

HR Group: USPC and CC

JUST FOR DR

	Mayo Historical LND cohort 2004-2008	MSK CC SLN 2006-2013	
N	210	202	
IR STAGE IIC	30/107 (%28)	29/82 (%35.4)	P=0.28
HR IIIC	20/103 (%19.4)	26/124 (%21.7)	P=0.68
IR Paraaortic LN(+)	20/96 (%20.8)	3/28 (%10.7)	P=0.23
HR Paraaortic LN +	13/82 (%15.9)	10/56 (%17.9)	P=0.76

Conclusions. SLN mapping algorithm provides similar detection rates of stage IIIC endometrial cancer. The SLN algorithm does not compromise overall detection compared to standard LND.

MSKCC & Carcinosarcoma & 48 SLN-A vs 88 non-SLN pts

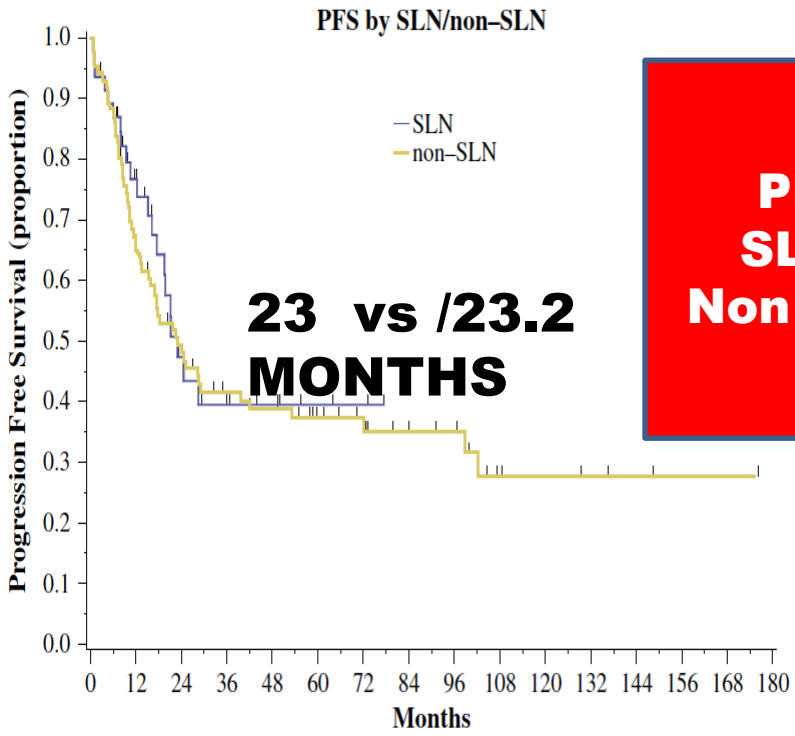
Survival of Patients with Uterine Carcinosarcoma Undergoing Sentinel Lymph Node Mapping

Maria B. Schiavone, MD1, Oliver Zivanovic, MD, PhD1,2, Qin Zhou, MA3, Mario M. Leitao Jr., MD1,2, Douglas A. Levine, MD1,2, Robert A. Soslow, MD4,5, Kaled M. Alektiar, MD6, Vicky Makker, MD7,8, Alexia Iasonos, PhD3, and Nadeem R. Abu-Rustum, MD1,2 Ann Surg Oncol. 2016

TABLE 5 Multivariate progression-free survival model

Variable	Levels	HR (95 % CI)	*p* value
SLN group	SLN vs. non-SLN	0.99 (0.59–1.64)	0.954
Stage	III vs. I/II	1.49 (0.83–2.67)	0.18
	IV vs. I/II	4.41 (2.50–7.77)	<0.001

N=136



Schiavone , Ann Surg Oncol, 2016

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TABLE 4 Univariate progression-free survival

Variable	Median PFS (95 % CI)	HR (95 % CI)	*p* value
All	23.2 (17.4–39.7)		
Age		1.02 (1–1.05)	0.069
BMI		1.01 (0.97–1.05)	0.654
SLN group			
SLN	23 (17.5–NE)	1	0.706
Non-SLN	23.2 (15.5–41.8)	1.1 (0.66–1.83)	
Stage			
I/II	53.2 (21.2–NE)	1	<0.001
III	24.5 (8.8–72)	1.49 (0.83–2.67)	
IV	10.1 (4.6–13)	4.4 (2.51–7.73)	
Invasion			
<50 %	53.2 (22.7–NE)	1	<0.001
>50 %	11.2 (8.1–17.7)	2.57 (1.62–4.07)	
LVSI			
Yes	17.4 (11.9–23.2)	1	0.021
No	41.8 (21.6–NE)	0.59 (0.37–0.93)	
Adjuvant therapy			0.417
Any chemotherapy	26.5 (17.9–96.8)	1	
Radiation therapy	14.6 (9–26.6)	1.52 (0.81–2.86)	
None	37.9 (0.2–NE)	1.1 (0.44–2.76)	

Recurrence Pattern

TABLE 3 Patterns of disease recurrence in SLN versus non-SLN cohorts

	SLN cohort ($n = 20$)	Non-SLN cohort ($n = 47$)
Pure vaginal	1 (5 %)	8 (17 %)
Pelvic	2 (10 %)	3 (7 %)
Pure nodal	3 (15 %)	1 (2 %)
Distant/multifocal	14 (70 %)	34 (74 %)

Detection rate 83%
Bilateral DR 70%

14/20(70%) SLN-A
34/47(74%)non-SLN distant/multifocal recurrence.

Buda et al & ESMO/ESGO/ESTRO 121 HI and 145 HR pts !! SLN Alone vs SLN+LND vs LND Eur.J.Surg.Oncol 2018

The impact of the type of nodal assessment on prognosis in patientswith high-intermediate and high-risk ESMO/ESGO/ESTRO group endometrial cancer. A multicenter Italian study

*,

BilATERAL MAPPING IGC 77% TC99+BLUE Dye 70% BLUE Dye 52%

PELVIC MET 17% SLN 7% LND

PA MET 2.1% SLN 0.8% LND

Table 1
General and surgical characteristics and adjuvant treatment in accordance with the risk groups (N = 266).

	High- intermediate (121 patients)	*High-risk (145 patients)*	P value
Age			
median (range), year	62 (34–92)	64 (30–89)	*0.238*[a]
BMI			
median (range), kg/m^2	28 (18–66)	26 (18–51)	*0.096*[a]
LVSI, n (%)			
Yes	37 (30.6)	82 (56.6)	<0.0001[b]
No	84 (69.4)	63 (43.4)	
Type of surgery, n (%)			
Open	27 (22.3)	56 (38.6)	0.003[b]
MIS	94 (77.7)	89 (61.4)	
Type of nodal assessment, N (%)			
None	43 (35.5)	23 (15.9)	0.0012[b]
LD only	57 (47.1)	82 (56.5)	
SLN-A	8 (6.7)	22 (15.2)	
SLN only	13 (10.7)	18 (12.4)	
Aortic LD, N (%)			
No	116 (95.9)	121 (83.5)	0.001[b]
Yes	5 (4.1)	24 (16.6)	
Number of pelvic nodes removed among patients undergoing pelvic LD			
Median (range)	16 (1–57)	20 (2–74)	0.042[a]
Adjuvant therapy, n (%)			
No	46 (38.7)	25 (17.4)	<0.0001[b]
CT	11 (9.2)	36 (25.0)	
RT ± CT	62 (52.1)	83 (57.6)	

HR

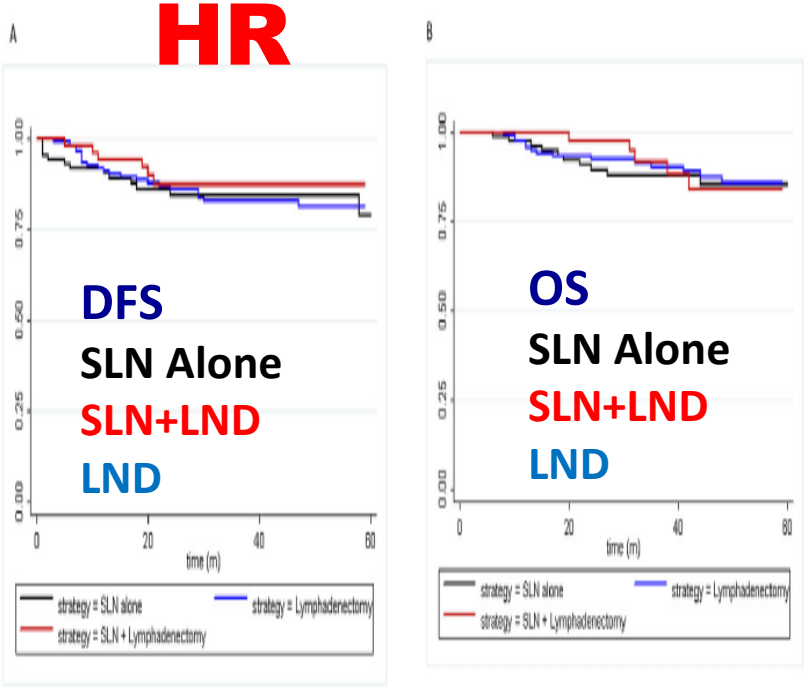


Fig. 2. The Kaplan-Meier DFS (2A) and OS (2B) curves in HI and HR patients related to the strategy adopted.

Buda et al & 4 Centers High Risk Mixed Group & SLN-A (66 pts) vs SLN-LND (105 pts)

Lymph node evaluation in high-risk early stage endometrial cancer: A multi-institutional retrospective analysis comparing the sentinel lymph node (SLN) algorithm and SLN with selective lymphadenectomy

Alessandro Buda [a] Gynecol Oncol 2018

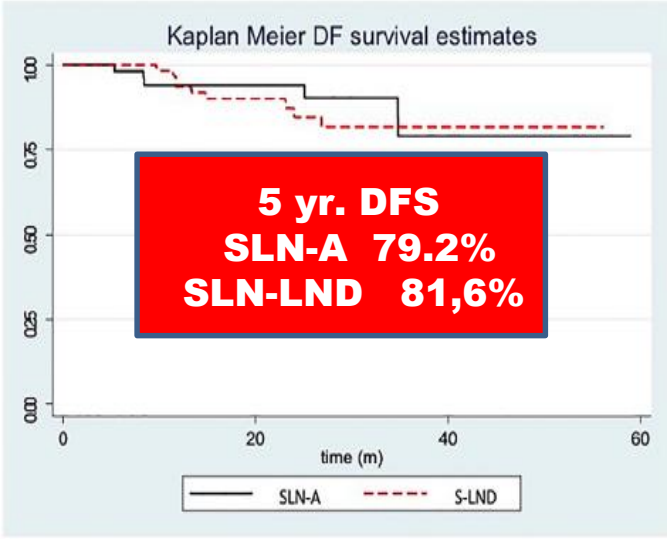
N=171 N=66 SLN-A N=105 S-LND

P LND 115 pts.

PaLND 54/105pts. S-LND

Table 2
Surgical and pathological characteristics of the 171 high-risk patients.

	SLN-A (N = 66)	S-LND (N = 105)	*p* value
Pelvic LND, N (%)			
No	56 (84.9)	0	
Yes bilateral	5 (7.6)	105 (100)	
Yes unilateral	5 (7.6)	0	
Aortic LND, N (%)			
No	66 (100)	51 (48.6)	
Yes	0	54 (51.4)	
Pts with positive nodes, N (%)	18 (27.3)	34 (32.4)	0.297
SLN positivity location, N (%)			
External iliac	17 (68)	25 (48.1)	0.421
Obturator	7 (28)	23 (44.2)	
Common iliac	1 (4)	3 (5.8)	
Aortic	–	1 (1.9)	
Type of SLN metastasis, N (%)			
MAC	11 (44)	40 (76.9)	0.013
MM	11 (44)	10 (19.2)	
ITC	3 (12)	2 (3.9)	
Follow-up time			
Median (range)	20 (5–80)	16 (6–88)	0.327
No of death	3	10	
No of recurrence	6	9	
Site of recurrence			
Vaginal	2	1	
Nodal	0	2	
Nodal + peritoneal	1	0	
Peritoneal + distant	1	2	
Peritoneal	2	3	
Distant	0	1	
Adjuvant therapy, N (%)			
None	34 (51.5)	25 (23.8)	0.001
RT + CHT	11 (16.7)	37 (35.2)	
RT	5 (7.6)	11 (10.5)	
CHT	9 (13.6)	10 (9.5)	
BRT	7 (10.6)	22 (21)	



Algorithm Sensitivity 91%

Sentinel lymph nodes (SLN) in endometrial cancer: The relationship between primary tumor histology, SLN metastasis size, and non-sentinel node metastasis, Robert W. Holloway Gynecol Oncol 2019

N:414

DOI<50% **DOI>50%** **TYPE 2N:59**

Table 2
Pelvic and para-aortic lymph node assessment stratified by histology risk group.

	Low-risk (N = 275)	Intermediate-risk (N = 80)	High-risk (N = 59)	Overall (N = 414)
Pelvic LND, N (%)	275 (100.0)	80 (100.0)	59 (100.0)	414 (100.0)
# pelvic LN removed, median (IQR)				
Unilateral	7 (5, 10)	8 (5, 11)	8 (5, 12)	
Bilateral	14 (10, 20)	16 (12, 22)	15 (11, 24)	
Positive pelvic LN, N (%)	32 (11.6)	40 (50.0)	23 (39.0)	95 (22.9)
Positive SLN, N (%)	31 (11.3)	38 (47.5)	20 (33.9)	89 (21.5)
False negative rate, N (%)	0/275 (0.0)	2/80 (2.5)	3/59 (5.1)	5/414 (1.2)
# positive pelvic LN per patient with pelvic LN met, median (IQR)				
Unilateral	1 (1, 1)	1 (1, 1)	1 (1, 2)	
Bilateral	2 (1, 3)	2 (1, 3)	2 (1, 3)	
Paraaortic LND, N (%)	69 (25.1)	63 (78.8)	54 (91.6)	186 (44.9%)
#PaLN removed, median (IQR)	7 (3, 12)	5 (3, 11)	7 (3, 11)	
Positive PaLN, N (%)	8 (2.9)	9 (11.3)	10 (16.9)	27 (6.5)

11.5% **50%** **39%**

2.9% **11.3%** **16.9%**

SLN FNR 0% LR, 2.5% IR, and 5.1% HR.

Sentinel lymph nodes (SLN) in endometrial cancer: The relationship between primary tumor histology, SLN metastasis size, and non-sentinel node metastasis,

Robert W. Holloway Gynecol Oncol 2019

414 pts.

Table 3

SLN metastasis, other non-SLN pelvic LN metastasis, and para-aortic LN metastasis stratified by histology risk group.

Total SLN cohort (N = 414)		Low-risk (N = 275)		Intermediate-risk (N = 80)		High-risk (N = 59)
SLN metastasis in total cohort, N (%)	**51.6%**	31 (11.3)	**44.7%**	38 (47.5)	**15%**	20 (33.9)
ITC		16		17		3
Micro/Macro		15		21		17
SLN(+) with other pelvic LN positive, N (%)		7/31 (22.6)		10/38 (26.3)		11/20 (55.0)
ITC SLN		0		3	**55%**	0
Micro/Macro SLN		7		7		11
PaLN metastasis in total cohort, N (%)		8/275 (2.9)		9/80 (11.3)		10/59 (16.9)
ITC SLN		3 (1.1)		2 (2.5)	**50%**	1 (1.7)
Micro/Macro SLN		5 (1.8)		7 (8.8)		9 (15.2)
PaLN(+) in pts with positive SLN, N (%)		8/31 (25.8)		9/38 (23.7)		10/20 (50.0)
PaLN met in pt w/ ITC in SLN		3/16 (18.8)		2/17 (11.8)		1/3 (33.3)
PaLN met in pt w/ micro/macro-met in SLN	**18.8%**	5/15 (33.3)	**11.8%**	7/21 (33.3)		9/17 (52.9)

33.3%

52.9%

MSKCC SGO 2019 Abstract USPC

402 pts:
81 only SLN
38 uni PLND-SLN
283 biIPLND

Sentinel lymph node mapping alone compared to lymphadenectomy in patients with uterine serous carcinoma

Memorial Sloan Kettering Cancer Center

Derman Basaran[1], Shaina Bruce[2], Jennifer Mueller[1], Vance Broach[1], Karen Cadoo[3], Robert Soslow[4], Nadeem R Abu-Rustum[1], Mario M Leitao Jr[1]

[1] Gynecology Service, Department of Surgery, Memorial Sloan Kettering Cancer Center; [2] Department of Obstetrics and Gynecology, Abington Jefferson Health; [3] Gynecologic Medical Oncology Service, Department of Medicine, Memorial Sloan Kettering Cancer Center; [4] Department of Pathology, Memorial Sloan Kettering Cancer Center

BACKGROUND

- Uterine serous carcinoma (USC) is a rare and aggressive histological subtype of adenocarcinoma of the endometrium. It accounts for only 10% of endometrial cancers, but for 40% of deaths.
- Published literature that has investigated the role of sentinel lymph node mapping in USCs are very limited. Most include other high-risk histologies such as grade 3 endometrioid carcinoma, clear cell carcinomas, and carcinosarcoma. Or, the study includes patients that underwent SLN mapping and completion systematic lymphadenectomies simultaneously.

OBJECTIVES

- We aimed to evaluate the oncological outcomes in patients with USC by comparing sentinel lymph node (SLN) mapping alone versus lymphadenectomy (LND).

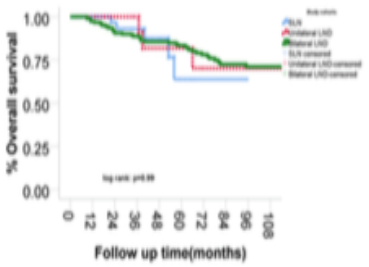
METHODS

- Patients that underwent primary surgical treatment for newly diagnosed USC at our institution between 1/1/1996 and 12/31/2017 were retrospectively reviewed.
- Patients were allocated to three cohorts: those who underwent exclusive SLN mapping (SLN, N=81), those who had unilateral pelvic LND +/- SLN mapping (uniLND, N=38) and those who had bilateral pelvic LND±SLN mapping (biLND, N=283).
- We also assessed role of para-aortic nodal dissection (PALND).
- Overall survival (OS) was estimated using Kaplan-Meier method and curves compared with log-rank test.

RESULTS

- 402 patients were identified. Median follow-up time was 23 months (range, 1-96) in SLN, 23 months (range, 4-121) in uniLND, and 58 months (range, 0-265) in biLND.
- All patient cohorts have similar stage distribution with Stage I disease being the most common (58.9%), followed by Stage III (29.4%) (p=0.777).
- While half of the patients in the BiLND cohort underwent a laparotomy (50.4%), most patients in SLN-only (90%) and UniLND (75.7%) cohorts underwent a minimally invasive procedure (p<0.001).
- In patients with stage I/II disease (N=267), the 2-year OS was 96.7% (SE +/-3.3) for SLN, 100% (SE NE) for uniLND and 90.5% (SE+/-2.2) for biLND (P=0.99). (Figure 1)

Figure 1. Overall survival in patients with stage I/II USC.

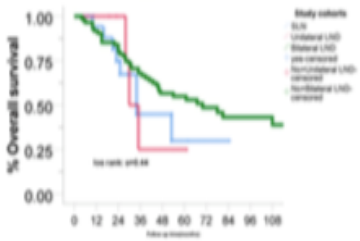


- The 2-year OS in stage I/II for those who underwent a PALND was 91.2% (SE+/-2.4) compared to 93.9% (SE+/-2.4) for those who did not (P=0.36).

RESULTS

- In stage III disease (N=109), the 2-year OS was 74.8% (SE +/-11.0) for SLN, 100% (SE NE) for uniLND and 79.9% (SE+/-4.5) for biLND (P=0.44). (Figure 2)
- The 2-year OS in stage III for those who underwent a PALND was 82.7% (SE+/-5.0) compared to 76.8% (SE+/-6.5) for those who did not (P=0.17).

Figure 2. Overall survival in patients with stage III USC.



CONCLUSIONS

- Extensive nodal dissection and exclusive SLN mapping alone lead to similar survival outcomes in patients with stage I-III USC.
- SLN can be utilized to evaluate nodal spread while avoiding morbidity associated with systematic nodal dissection.

Memorial Sloan Kettering Cancer Center

STAGE I-III
USPC
P-PALND
SLN
MAPPING
OS
SMILAR

A Prospective Study of Sentinel Lymph Node Mapping forEndometrial Cancer: Is It Effective in High-Risk Subtypes?

LEI YE, SHUANGDI LI, The Oncologist 2019

2016-2018 Prospective trial

N=131 25/131 HR pts.

Clinical features and SLN mapping outcome in high-risk and low-risk endometrial cancer

Features	Low-risk group (*n* = 106)	High-risk group (*n* = 25)
Age, years	55.9	55.4
BMI, kg/m^2	24.8	24.6
SLN mapping time, median (range), minutes	17.9 (9–30)	17.0 (10–30)
SLN detection rate, *n* (%)	97 (90.6)	25 (100)
Bilateral detection rate, *n* (%)	63 (64.9)	18 (72.0)
Unilateral detection rate, *n* (%)	34 (35.1)	7 (28.0)
SLN number, median (range)	2.2 (0–7)	2.4 (1–7)

- LN+in 4 additional pts. without +SLNs.
- 4pts. HR group.
- 3/4 isole PaLN
- SENSİTİVİTY 20%
- FNR 80%
- NPV 83.3%

SLN -A/What do we not know?

- ?normal-appearing non-sentinel lymph nodes, and the potential for residual metastatic disease.
- ?whether nodal metastases are exclusively pelvic or coexist with paraaortic disease
- Possible failure to diagnose isolated positive para-aortic disease

PRINCIPLES OF EVALUATION AND SURGICAL STAGING

Principles of Surgical Staging for Endometrial Cancer[1-15]

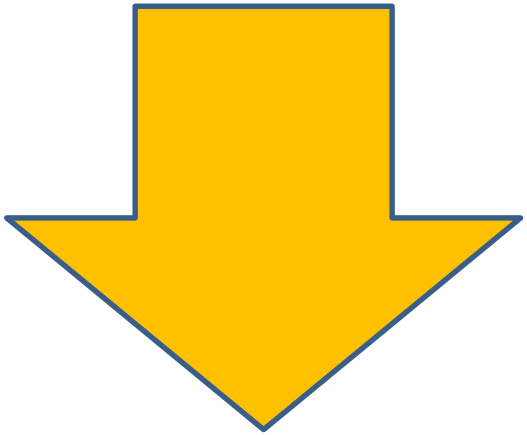
- TH/BSO,and lymph node assessment is the primary treatment of apparent uterine-confined endometrial carcinoma, unless patients desire (and are candidates for) fertility-sparing options (See ENDO-8).[1-3] Select patients with metastatic endometrial carcinoma are also candidates for hysterectomy. (See Principles of Pathology [ENDO-A])
- Endometrial carcinoma should be removed en bloc to optimize outcomes; intraperitoneal morcellation or tumor fragmentation should be avoided.
- TH/BSO and lymph node assessment may be performed by any surgical route (eg, laparoscopic, robotic, vaginal, abdominal), although the standard in those with apparent uterine-confined disease is to perform the procedure via a minimally invasive approach. Randomized trials, a Cochrane Database Systematic Review, and population-based surgical studies support that minimally invasive techniques are preferred in this setting due to a lower rate of surgical site infection, transfusion, venous thromboembolism, decreased hospital stay, and lower cost of care, without compromise in oncologic outcome.[4-9]
- The lymph node assessment includes evaluation of the nodal basins that drain the uterus, and often comprises a pelvic nodal dissection with or without para-aortic nodal dissection. This continues to be an important aspect of surgical staging in women with uterine-confined
- Pelvic lymph nodes from the external iliac, internal iliac, obturator, and common iliac nodes are frequently removed for staging purposes.
- Para-aortic nodal evaluation from the inframesenteric and infrarenal regions may also be utilized for staging in women with high-risk tumors such as deeply invasive lesions, high-grade histology, and tumors of serous carcinoma, clear cell carcinoma, or carcinosarcoma.
- Sentinel lymph node (SLN) mapping may be considered. (See pages 2–6 of ENDO-C)[15]
- Some patients may not be candidates for lymph node dissection.
- Visual evaluation of the peritoneal, diaphragmatic, and serosal surfaces with biopsy of any suspicious lesions is important to exclude extrauterine disease.
- While peritoneal cytology does not impact staging, FIGO and AJCC nonetheless recommend that surgeons continue to obtain this during the TH/BSO.
- Omental biopsy is commonly performed in those with serous carcinoma, clear cell carcinoma, or carcinosarcoma histologies.

Continued

Note: All recommendations are category 2A unless otherwise indicated.
Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

The suggestion in the NCCN guideline concerning this issue was changed from:

"be undertaken with particular caution"



"may perform well in high-risk histologies."

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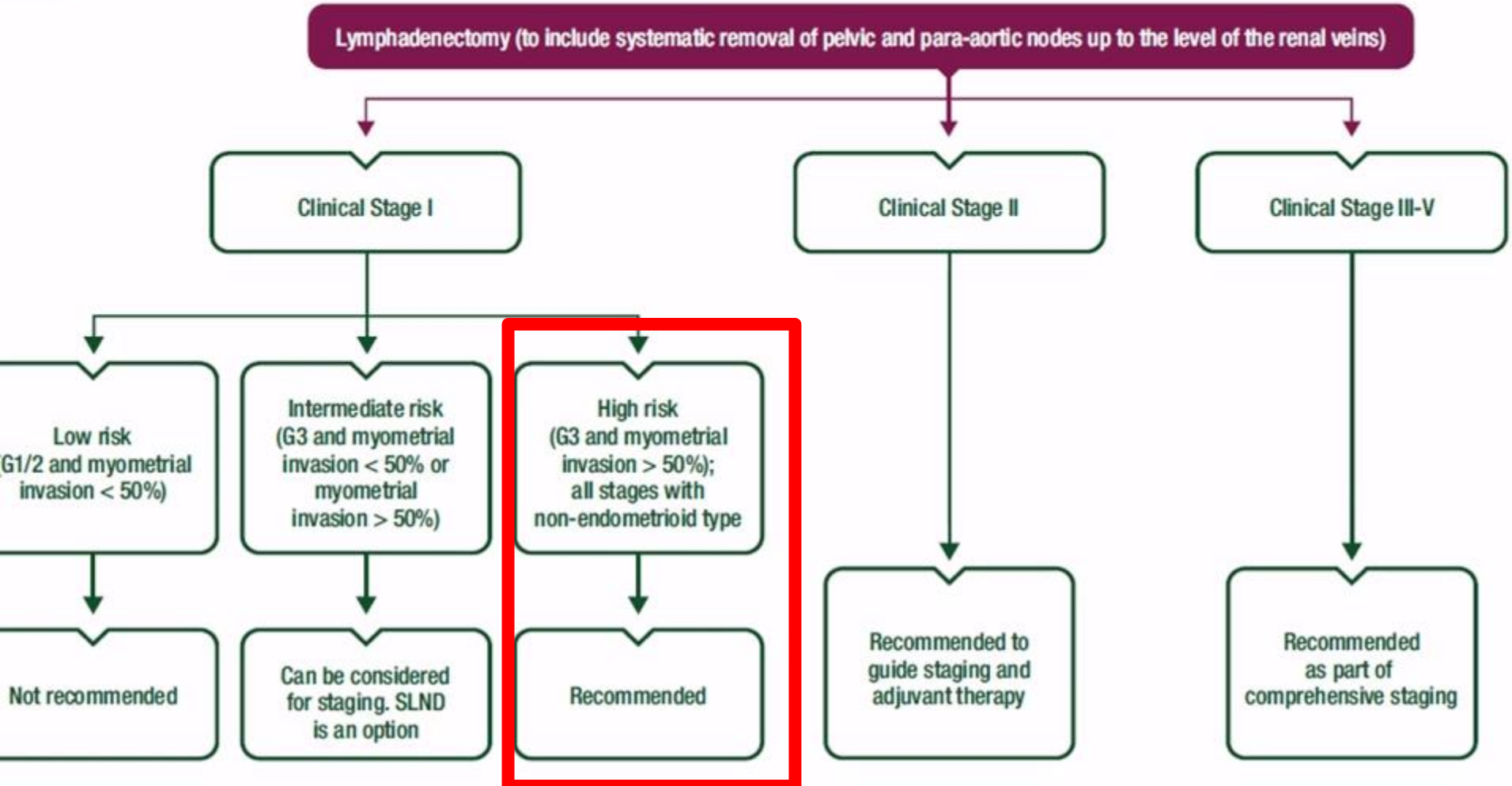
doi:10.1093/annonc/mdx243

ESMO GOOD SCIENCE BETTER MEDICINE BEST PRACTICE

CLINICAL PRACTICE GUIDELINES

Appendix 5: Endometrial cancer: eUpdate published online 8 June 2017 (www.esmo.org/Guidelines/Gynaecological-Cancers)



Conclusion

- SLN /Data improving
- We need , Prospective trials
- Retrospective data support that when high-grade cancers are staged with SLN biopsy, oncologic outcomes appear similar to historical cohorts
- Retroperitoneal LND is a integral part of surgical staging procedure in non-endometroid endometrial ca

Thank you for your attention

TÜRK
JİNEKOLOJİK ONKOLOJİ DERNEĞİ