



The 4th MEMAGO CONGRESS

Middle East & Mediterranean Association
of Gynecological Oncology
and

1st Emirates Gynecological Oncology Conference

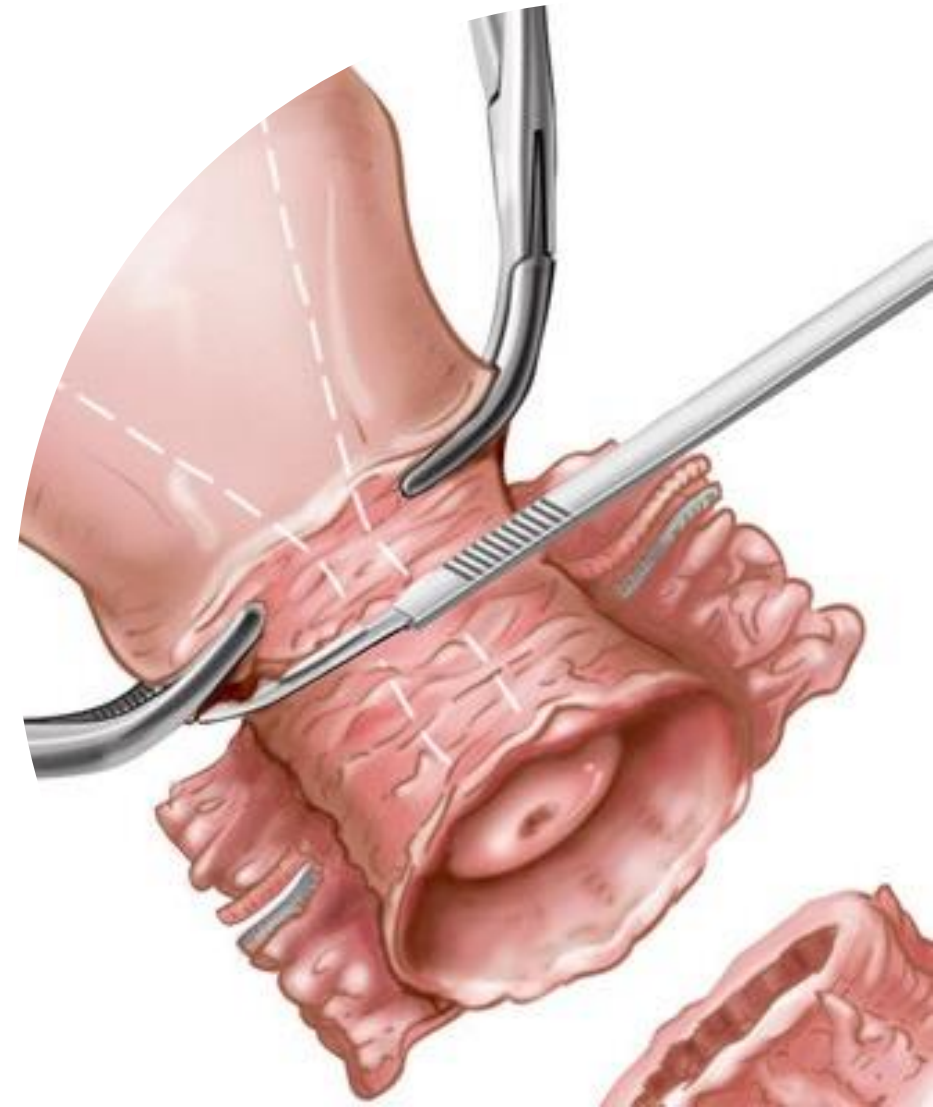
Roberto Angioli, M.D.

Chairman Ob/Gyn University Rome, Italy

President Italian Society of Gynecologic Oncology

President International Gynecologic Cancer Society

Early cervical cancer
Fertility sparing options



GYNECOLOGICAL CANCER: DIMENSION OF THE PROBLEM

Estimated number of new cases in 2018, worldwide, females, all ages

* Crude and age-standardized rates per 100 000

ICD	Cancer	Number	Uncertainty interval	Crude Rate*	ASR (World)*	Cum. risk**
C00-97	All cancers	8 622 539	[8218850.0-9046060.0]	228.0	182.6	-
C50	Breast	2 088 849	[2003730.0-2177580.0]	55.2	46.3	-
C33-34	Lung	725 352	[705669.0-745584.0]	19.2	14.6	-
C53	Cervix uteri	569 847	[545771.0-594985.0]	15.1	13.1	-
C73	Thyroid	436 344	[408054.0-466595.0]	11.5	10.2	-
C18	Colon	520 812	[485891.0-558243.0]	13.8	10.1	-
C54	Corpus uteri	382 069	[375428.0-388827.0]	10.1	8.4	-
C44	Non-melanoma skin cancer	404 323	[280373.0-583070.0]	10.7	7.0	-
C16	Stomach	349 947	[334068.0-366581.0]	9.3	7.0	-
C56	Ovary	295 414	[280962.0-310609.0]	7.8	6.6	-
C19-20	Rectum	274 146	[269332.0-279047.0]	7.2	5.6	-

GYNECOLOGICAL CANCER: DIMENSION OF THE PROBLEM

THE NUMBER OF GENITAL CANCERS IN THE WORLD AND CORRESPONDING RATES OF PATIENTS IN PRE-MENOPUASAL

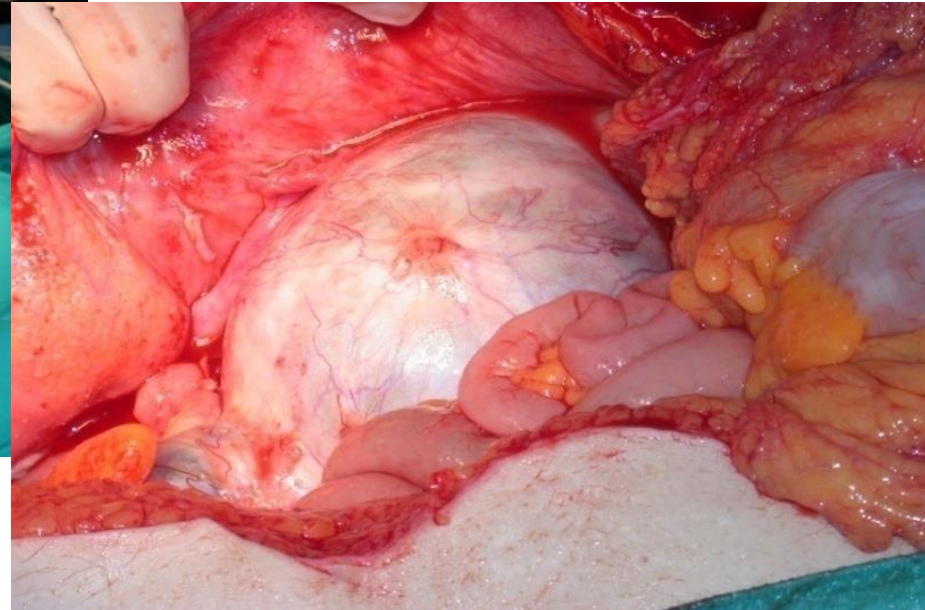
Number of genital cancers in the world and corresponding rates of patients eligible for fertility preservation each year.

	Number of Gynecologic Cancer in the world	Premenopausal women (%)	Eligible women for fertility preserving with respect to stage and grade (%)	Number of women eligible for fertility preserving approach
Cervical cancer	529,800	20	48	23,000
Endometrial cancer	287,100	5-10	20-30	5400
Ovarian cancer	225,500	10-15	15	2500

23.000 PTS AFFECTED BY CERVICAL CANCER
5.400 PTS AFFECTED BY ENDOMETRIAL CANCER
2.500 PTS AFFECTED BY OVARIAN CANCER
ARE ELIGIBLE FOR FERTILITY SPARING SURGERY EACH YEAR

FERTILITY SPARING

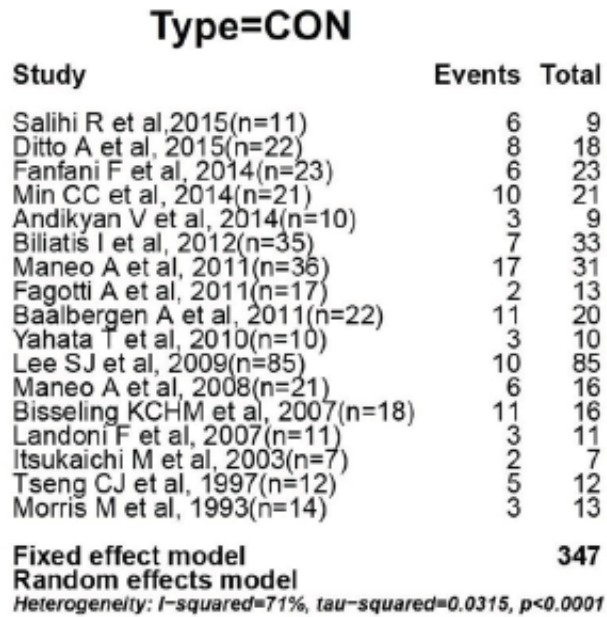
Conservative surgery is defined as preservation of at least uterus and sufficient ovarian tissue to permit conception.



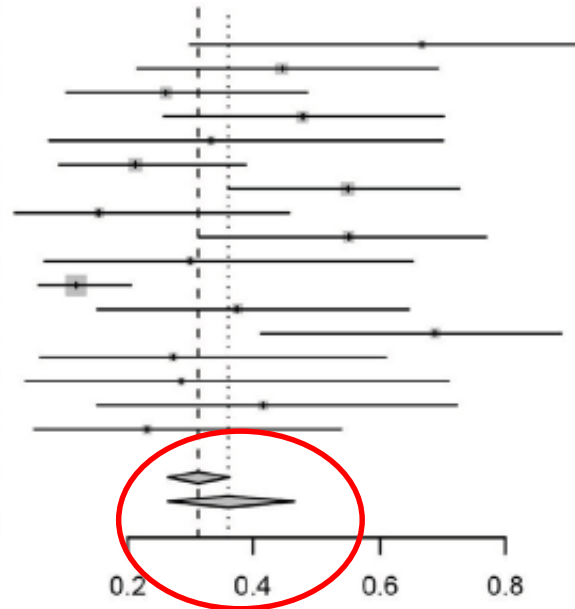
ONCOLOGICAL AND OBSTETRICS OUTCOME OF FSS

Oncologic and obstetrical outcomes with fertility-sparing treatment of cervical cancer: a systematic review and meta-analysis

A



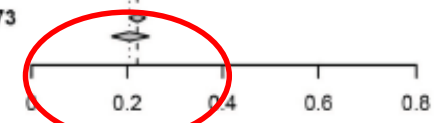
Pregnancy rates



Pooled Rate	Conization	Radical Trachelectomy
Pregnancy	36,1%	19%
Miscarriage	14,8%	24%
Premature Birth	6,8%	26,6%



META-ANALYSIS (60 studies)



CERVICAL CANCER

NCCN Guidelines Version 4.2019 Cervical Cancer

National
Comprehensive
Cancer
Network®



International Federation of Gynecology and Obstetrics (FIGO) Surgical Staging of Cancer of the Cervix Uteri (2018)

Stage	Description
I EARLY	The carcinoma is strictly confined to the cervix (extension to the uterine corpus should be disregarded)
	Invasive carcinoma that can be diagnosed only by microscopy, with maximum depth of invasion <5 mm ^a
	IA1 Measured stromal invasion <3 mm in depth
	IA2 Measured stromal invasion ≥3 mm and <5 mm in depth
	Invasive carcinoma with measured deepest invasion ≥5 mm (greater than Stage IA), lesion limited to the cervix uteri ^b
	IB1 Invasive carcinoma ≥5 mm depth of stromal invasion, and <2 cm in greatest dimension
II LOCALLY ADVANCED	IB2 Invasive carcinoma ≥2 cm and <4 cm in greatest dimension
	IB3 Invasive carcinoma ≥4 cm in greatest dimension
	The carcinoma invades beyond the uterus, but has not extended onto the lower third of the vagina or to the pelvic wall
	Involvement limited to the upper two-thirds of the vagina without parametrial involvement
	IIA1 Invasive carcinoma <4 cm in greatest dimension
	IIA2 Invasive carcinoma ≥4 cm in greatest dimension
III ADVANCED	With parametrial involvement but not up to the pelvic wall
	The carcinoma involves the lower third of the vagina and/or extends to the pelvic wall and/or causes hydronephrosis or nonfunctioning kidney and/or involves pelvic and/or para-aortic lymph nodes ^c
	The carcinoma involves the lower third of the vagina, with no extension to the pelvic wall
	Extension to the pelvic wall and/or hydronephrosis or nonfunctioning kidney (unless known to be due to another cause)
	Involvement of pelvic and/or para-aortic lymph nodes, irrespective of tumor size and extent (with r and p notations) ^c
	IIIC1 Pelvic lymph node metastasis only
IV ADVANCED	IIIC2 Para-aortic lymph node metastasis
	The carcinoma has extended beyond the true pelvis or has involved (biopsy proven) the mucosa of the bladder or rectum. (A bullous edema, as such, does not permit a case to be allotted to Stage IV)
	Spread to adjacent pelvic organs
	Spread to distant organs

CERVICAL CANCER

Stage	Histology	Strategy
Ia1 (Measured stromal invasion \leq 3.0 mm in depth and \leq 7.0 mm in horizontal spread)	Squamous, adenok, adenosquamous; stromal invasion $<$ 3 mm, negative margins, ECC negative, LVS neg, node negative	Cone biopsy with negative margins
-Ia1 with LVSI -Ia2-Ib1 (< 2 cm) (Measured stromal invasion $>$ 3.0 mm and \leq 5.0 mm with a horizontal spread \leq 7.0 mm; visible lesion $>$ Ia2 $>$ 4 cm)	Squamous, adenok, adenosquamous; diameter $<$ 2 cm, stromal invasion $<$ 10 mm, node negative	- Cone biopsy with negative margins + pelvic lymph node dissection (consider SLN mapping) - Radical trachelectomy + pelvic lymph node dissection

Nodal assessment

(>stage IA1, patient with greater than 3 mm depth of invasion, LVSI, high risk histology)

- SLN (NCCN 2015)
- Extrapertitoneal LA



Associazione Italiana di Oncologia Medica



Radical trachelectomy and pelvic lymph node dissection with (or without) para-aortic lymph node dissection is an option for Ib1 and selected cases of Ib2.

Some surgeons suggest that a 2 cm cut-off may be used for vaginal trachelectomy, whereas 4 cm cut-off for abdominal trachelectomy.

CERVICAL CANCER

CONSERVATIVE SURGERY

- COLD KNIFE CONIZATION
- TRACHELECTOMY
- RAD. TRACHELECTOMY

▪ LYMPH NODE DISSECTION

RADICAL SURGERY

RADICAL
HYSTERECTOMY +
ADNEXECTOMY

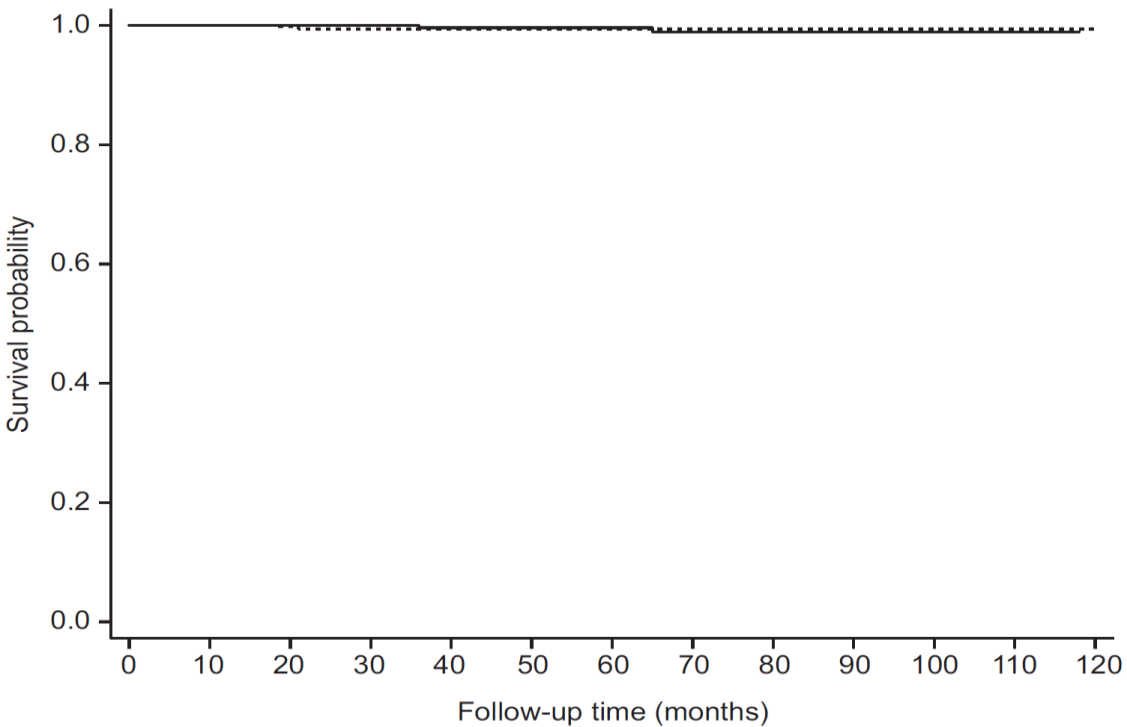
CONE BIOPSY vs HYSTERECTOMY IA1

Fertility-Conserving Surgery for Young Women With Stage IA1 Cervical Cancer

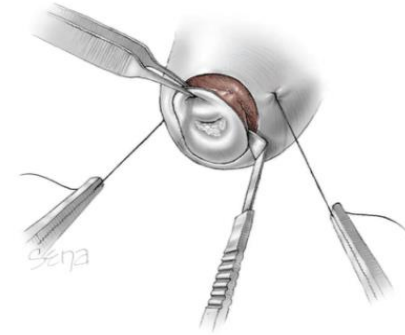
Safety and Access



Jason D. Wright, MD, Ruvandhi Nathavithrana, MD, Sharyn N. Lewin, MD, Xuming Sun, Israel Deutsch, MD, William M. Burke, MD, and Thomas J. Herzog, MD



OS	Number	5-Year Survival
Hysterectomy	841	98 (96–99)
Fertility-conserving surgery	568	99 (97–99)

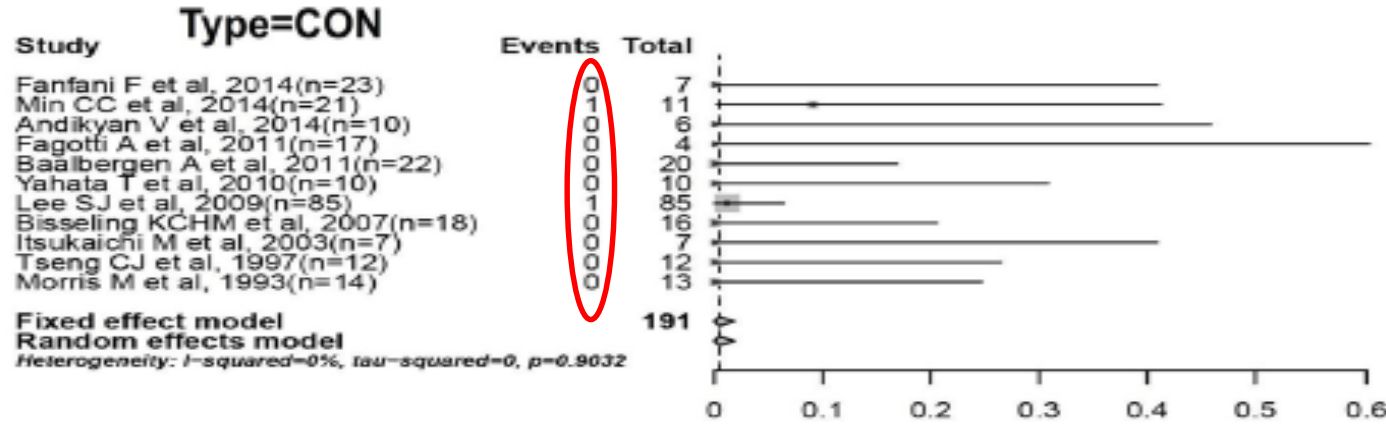


Wright JD et al. Obstet Gynecol. 2010

**FERTILITY-CONSERVING SURGERY IS SAFE FOR
YOUNG WOMEN WITH STAGE IA1 SQUAMOUS CELL CARCINOMA**

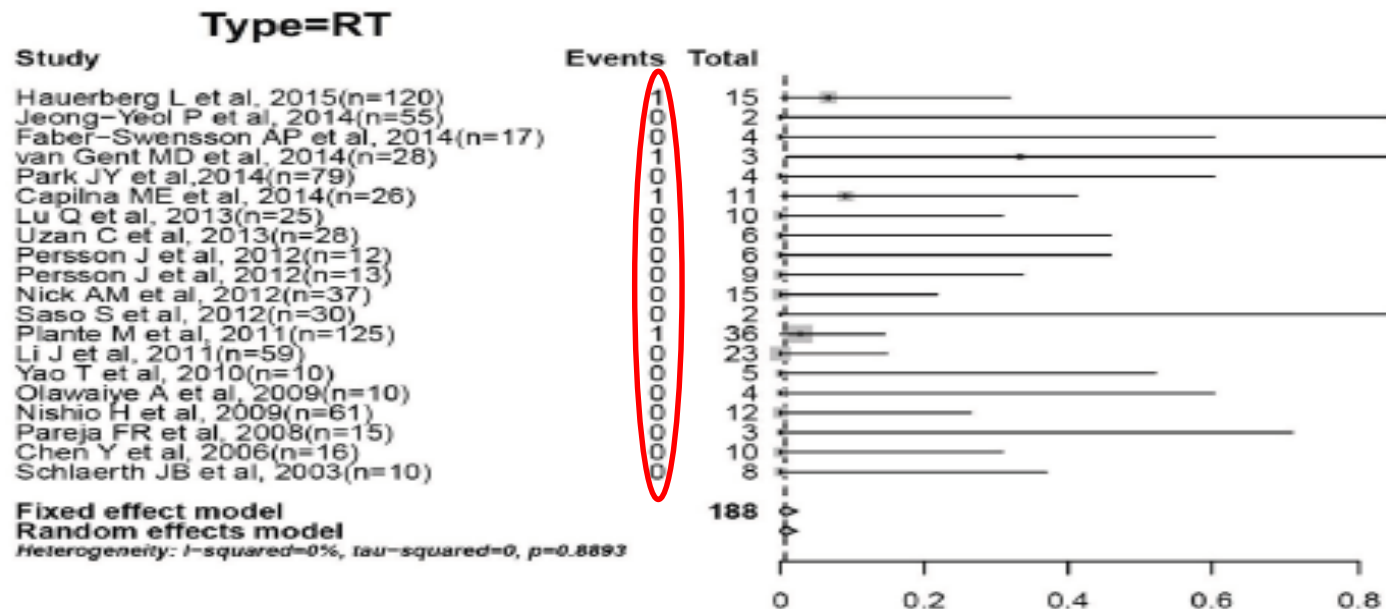
CONE BIOPSY vs TRACHELECTOMY in IA1

META-ANALYSIS
(60 studies)



**POOLED
RECURRENCE RATE**

0,4%



0,7%

Both Conization and Radical Trachelectomy are encouraging as a fertility-sparing treatment for eCC, especially in stage IA-IB1, according to the low relapse rates

SLN GUIDELINES - FERTILITY SPARING



National
Comprehensive
Cancer
Network®

NCCN Guidelines Version 4.2019 Cervical Cancer

CLINICAL STAGE^b

PRIMARY TREATMENT (FERTILITY SPARING)^{f,g}

Stage IA1
no lymphovascular
space invasion
(LVSI)

Cone biopsy^h with negative marginsⁱ
(preferably a non-fragmented specimen with 3-mm negative marginsⁱ)
(If positive margins, repeat cone biopsy or perform trachelectomy)

Stage IA1
with LVSI
and
Stage IA2

Cone biopsy^h with negative marginsⁱ
(preferably a non-fragmented specimen with 3-mm negative marginsⁱ)
(if positive margins, repeat cone biopsy or perform trachelectomy)
+ pelvic lymph node dissection
(consider sentinel lymph node [SLN] mapping)^j
or
Radical trachelectomy
+ pelvic lymph node dissection^j
(consider SLN mapping)^j

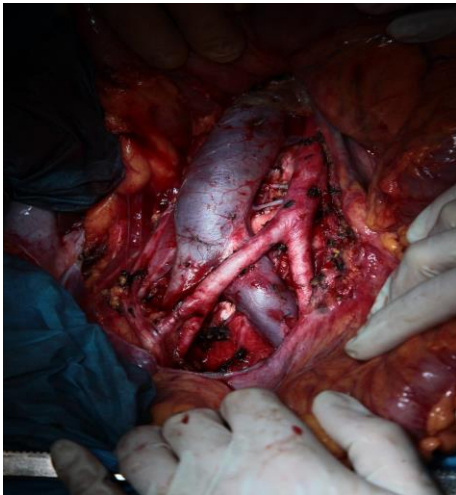
Stage IB1^e

Radical trachelectomy
+ pelvic lymph node dissection^j
± para-aortic lymph node dissection
(consider SLN mapping)^{j,k}

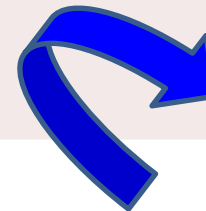
LYMPHNODE INVOLVEMENT CERVICAL CANCER



FIGO STAGE	INCIDENCE OF PELVIC NODE METASTASIS
I a1	LVS - 1,5%
	LVS + 4,2%
I a2	3,7%
I b	12 - 22%

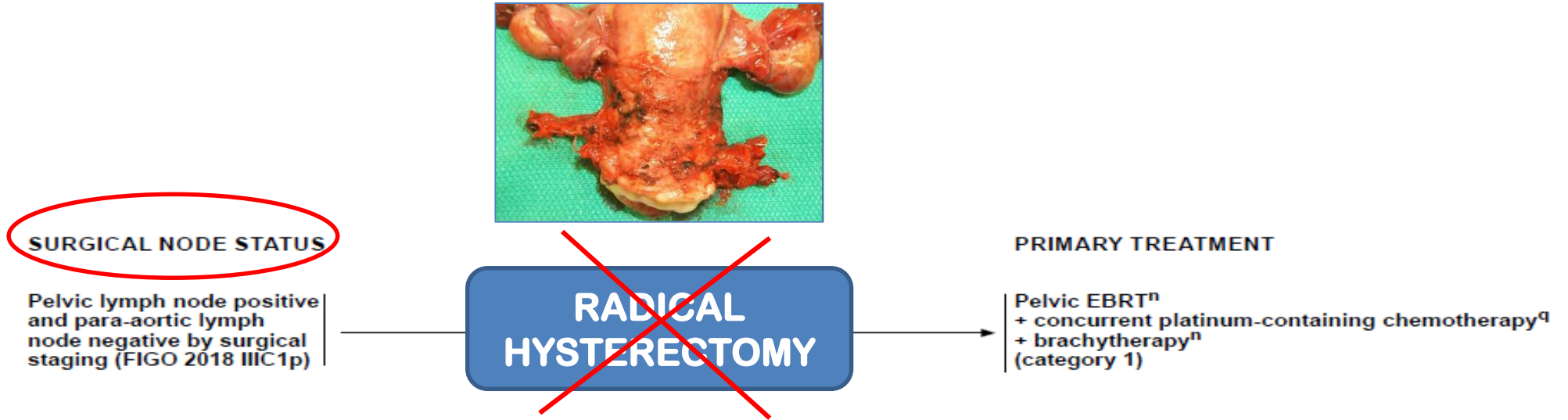


PELVIC NODES	RISK OF AORTIC NODE SPREAD
POSITIVE	25%
NEGATIVE	1%



**SKIP
METASTASES**

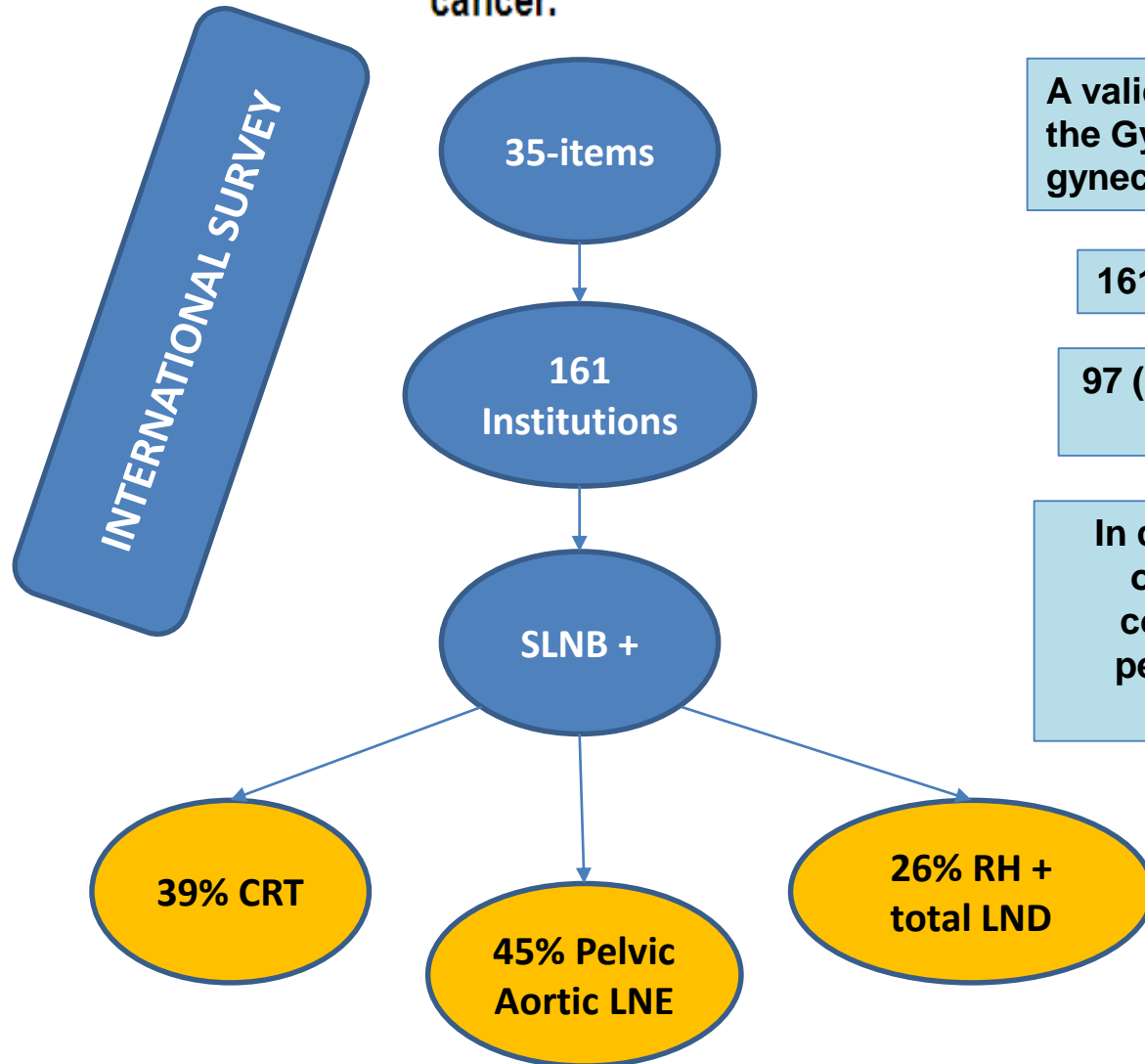
GUIDELINES FOR CERVICAL CANCER TREATMENT



If lymph node involvement is detected intraoperatively including macrometastases or micrometastases, further pelvic lymph node dissection and radical hysterectomy should be avoided. Patients should be referred for definitive chemoradiotherapy. Paraaortic lymph node dissection, at least up to inferior mesenteric artery, may be considered for staging purposes.

CERVICAL CANCER TREATMENT WORLDWIDE

A GCG international survey: clinical practice patterns of sentinel lymph node biopsies in cervical cancer.



A validated 35-item questionnaire regarding SLNB in CC supported by the Gynecologic Cancer Intergroup (GCG), sent to all major gynecological cancer societies across the globe

161 Institutions from around the world participated

97 (60%) used SLNB, due to lower morbidity (73%), reliability (55%) and time-saving (27%)

In cases of **positive SLNB (pN+)**, 39% of respondents stopped the operation and sent the patient for chemoradiation (CRT), 45% completed pelvic and paraaortic LNE, whereas 26% went on to perform a radical hysterectomy (RH) and systematic pelvic and paraaortic LNE.



CERVICAL CANCER TREATMENT WORLDWIDE



Different approach of positive SLN during surgery:

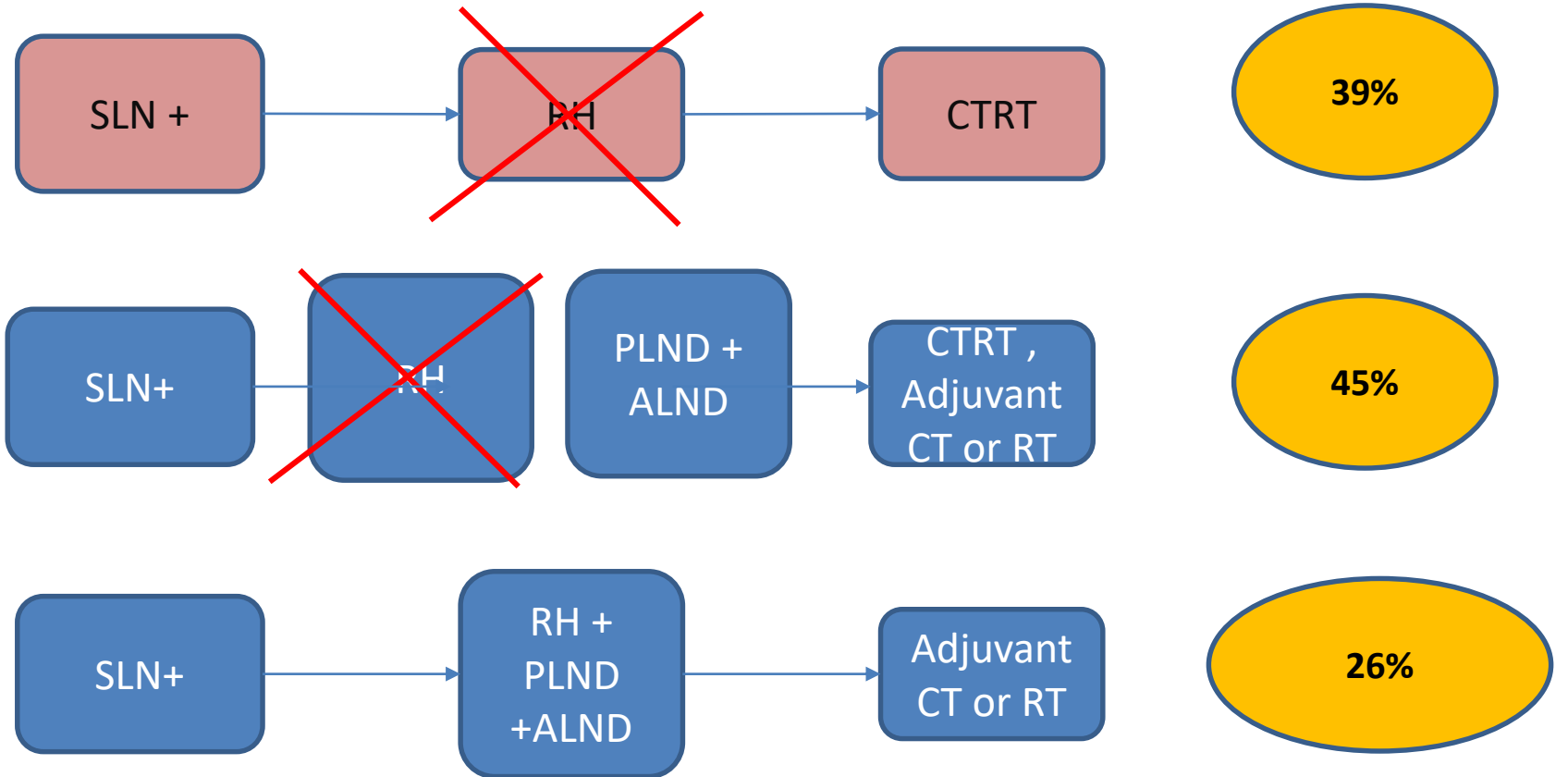
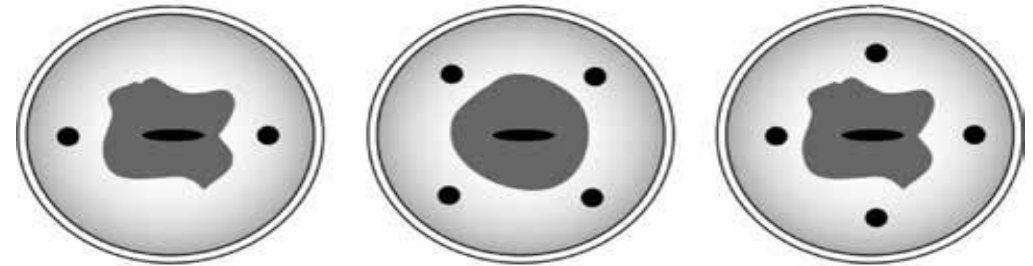


IMAGE GUIDED SURGERY

- ICG infiltration
- Combination of a **superficial** (1–3 mm) and **deep** (1–2 cm) cervical injection usually 2 or 4 points (3-9, 1-5-7-10, 12-3-6-9)
- Laparoscopic detection (after cervical injection are commonly located **medial to the external iliac, ventral to hypogastric or in the superior part of the obturator space**)

ICG can detect SLN at an accuracy of 95% to 98%

Ferreira et al, 2019 Surg Technol Intern



© MSKCC 2013

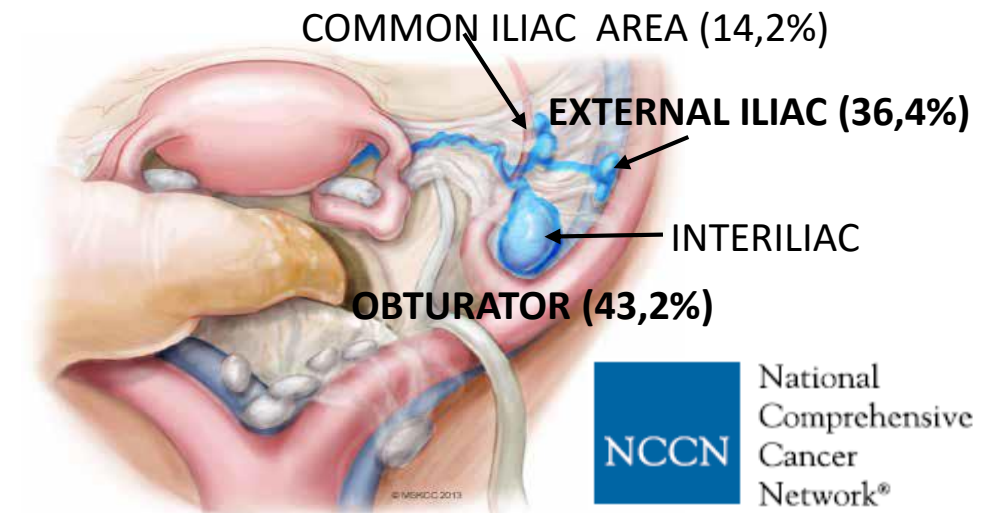
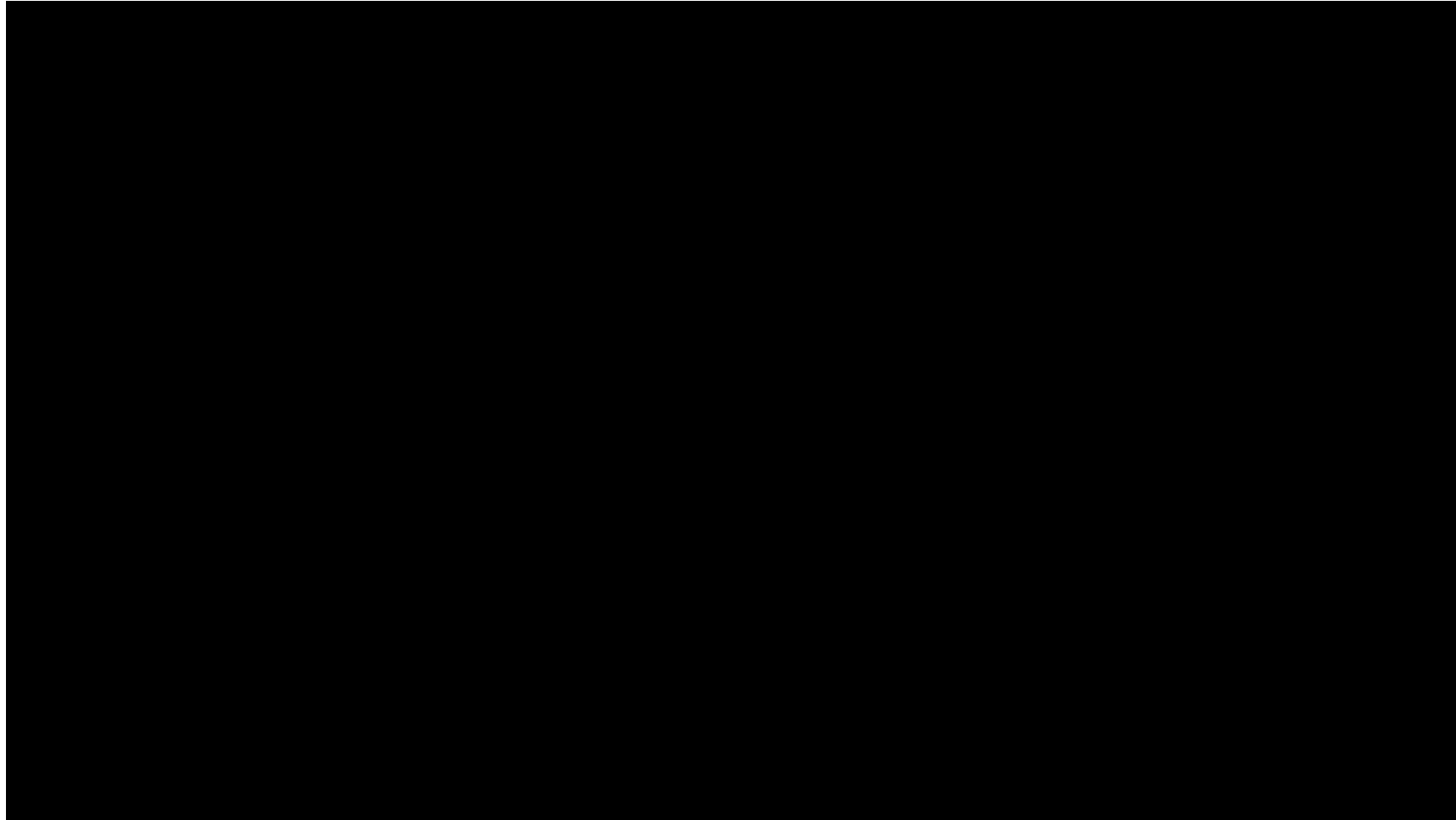


IMAGE GUIDED SURGERY



LYMPHNODE INVOLVEMENT CERVICAL CANCER

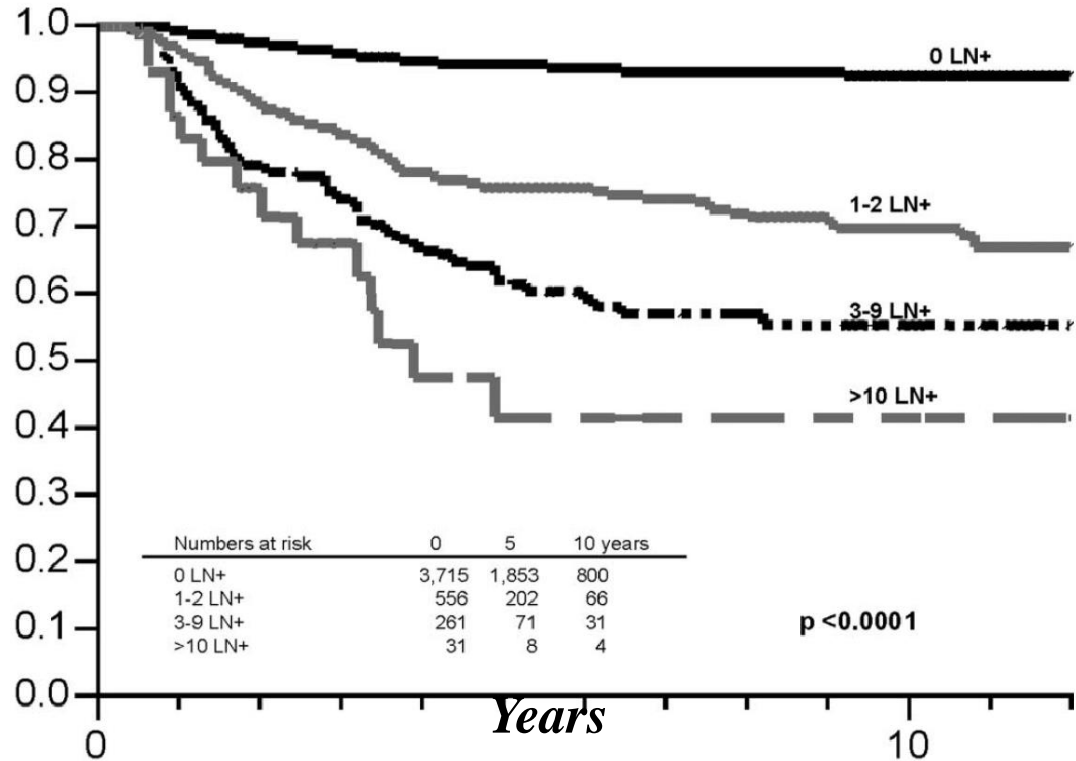
Authors	Stage	Pts	5-years survival	
			N-	N+
Inoue T. 1990	IB-IIB	875	89%	52%
Lai C.H. 1999	IB-IIB	827	87,3%	68,2%
Kim, 2000	IB-IIA	366	95%	78%
Naoki, 2002	IB-IIB	187	86%	61,8%
Benedetti P, 2004	IB1-IIA	83	95%	74%
Kenneth Macdonald, 2009	IB-IIB	4559	89%	56%
Masayoshi, 2010	IB-IIB	425	94,8%	62%
Long, 2010	IB-IIB	960	91,5%	67%
Sakurag, 2015	IA-IIB		91%	67%
S.Karger, 2017	IA2-IB1		98,2%	77,8%

p<0.001

Review of literature

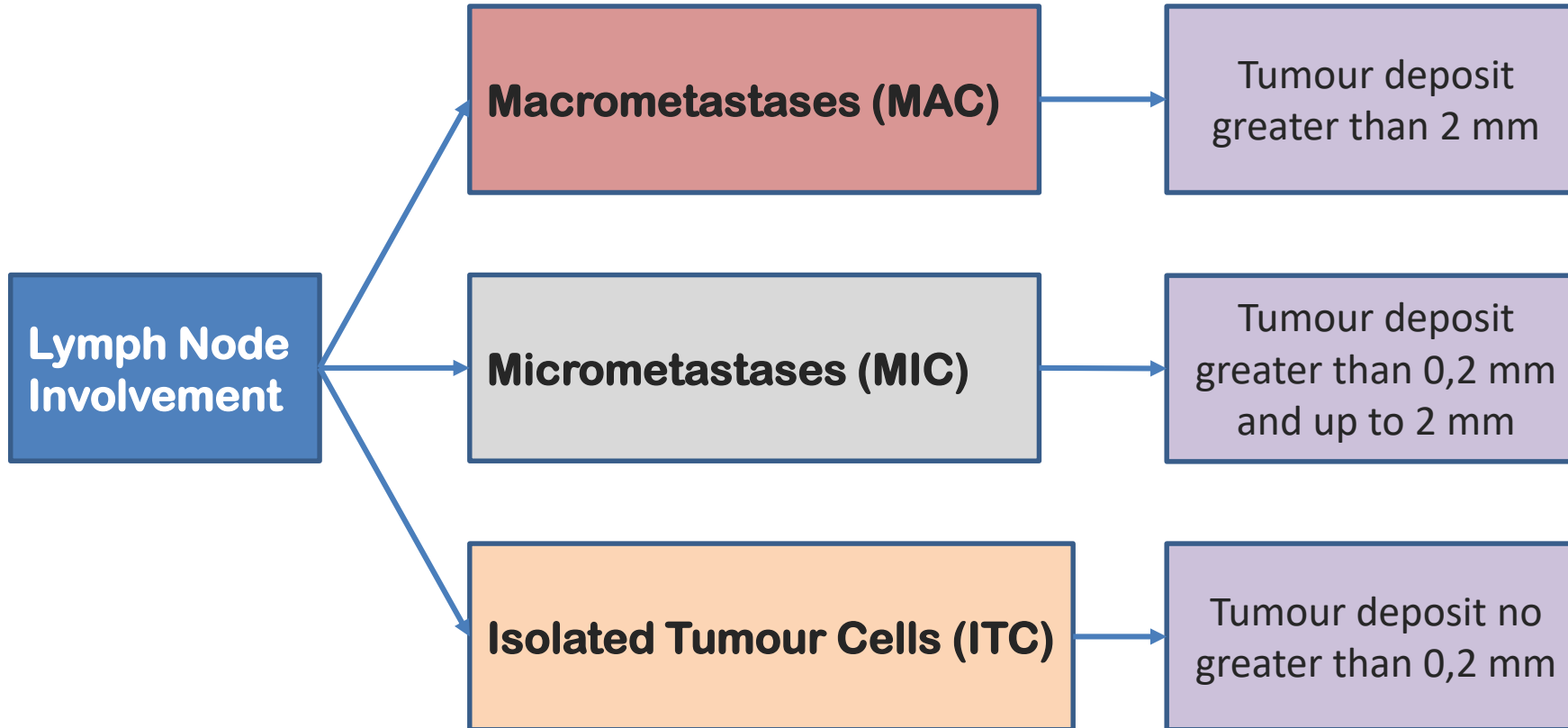
NODAL STATUS IS THE MOST IMPORTANT PROGNOSTIC FACTOR

LYMPHNODE INVOLVEMENT CERVICAL CANCER



OS by nodal status	
n° N +	5 ys-OS
0	91%
1-2	69%
3-9	58%
≥ 10	35%

LYMPHNODE INVOLVEMENT CERVICAL CANCER



LYMPHNODE SPREAD AND INVOLVEMENT CERVICAL CANCER

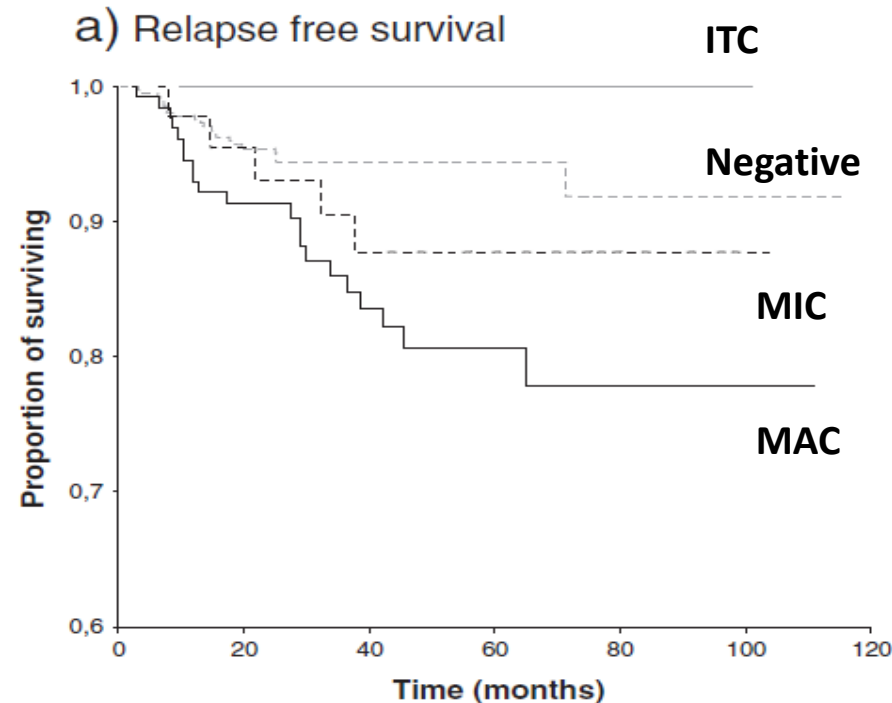
Prognostic significance of low volume sentinel lymph node disease in early-stage cervical cancer

**645 pts
Retrospective
study**

MIC rate: 10,1%

MAC rate: 14,7%

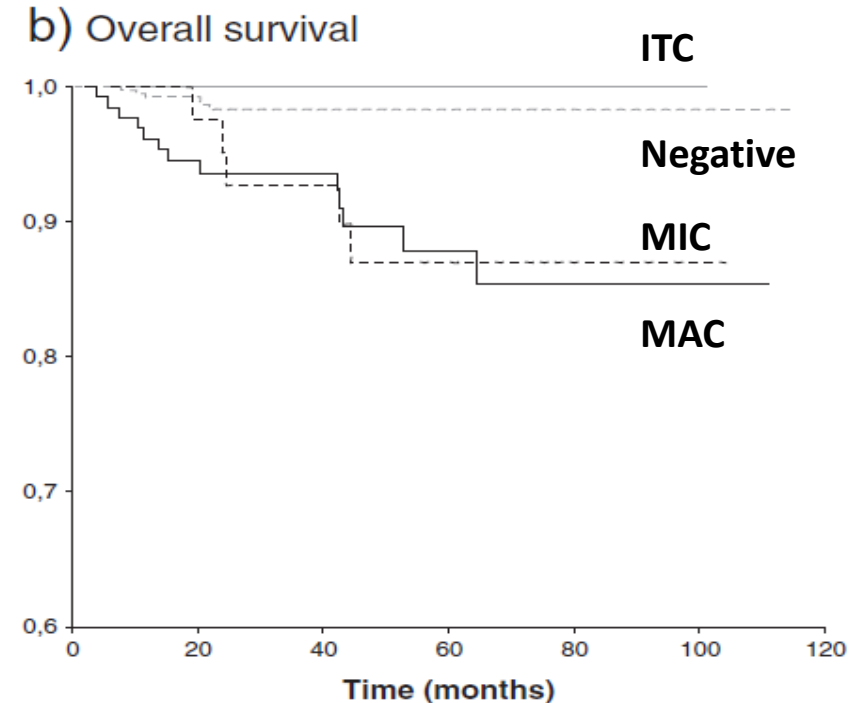
ITC rate: 4,5%



Mutual comparison of categories (p values):

	Negative	ITC	Micro-met.
Macro-met	0.001*	<0.001*	0.258
Micro-met.	0.128	0.008*	
ITC	0.201		

— ITC
- - - Negative
· · · · Micro-metastases
- · - · Macro-metastases



Mutual comparison of categories (p values):

	Negative	ITC	Micro-met.
Macro-met.	<0.001*	0.009	0.886
Micro-met.	<0.001*	0.036	
ITC	0.549		

LYMPHNODE INVOLVEMENT CERVICAL CANCER

Lymph node micrometastases in initial stage cervical cancer and tumoral recurrence

83 patients
Retrospective study

Variables	Total (n = 83)	Without recurrence (n = 68)	With recurrence (n = 15)	P value
Lymph node micrometastasis (isolated tumor cells and/or micrometastasis)				0.009 ^c
No. for whom data available	83	68	15	
No	77 (93)	66 (97)	11 (73)	
Yes	6 (7)	2 (3)	4 (27)	

Patients with MIC have 11,73 times higher risk of recurrence

Multivariate regression analysis results for recurrence.

Independent variables	Odds ratio (95% confidence interval)	P value
<u>Lymph node micrometastasis (yes vs no)</u>	11.73 (1.57–87.8)	0.017
Stromal invasion depth		
Stromal invasion depth (<1/3 vs >2/3)	1.16 (0.23–5.87)	0.854
Stromal invasion depth (1/3–2/3 vs >2/3)	0.73 (0.12–4.46)	0.738
Tumor size (≥2 cm vs <2 cm)	4.42 (1.00–19.47)	0.049
Angiolymphatic invasion by HE (yes vs no)	1.19 (0.20–6.94)	0.846

Presence of lymph node micrometastases is an important risk factor for tumor recurrence in cervical cancer. These patients should be considered eligible for adjuvant radiotherapy

LYMPHNODE SPREAD AND INVOLVEMENT CERVICAL CANCER

139 patients
Multi-institutional
retrospective review

Lymph Node Micrometastases in Early-Stage Cervical Cancer are Not Predictive of Survival.

Stany MP¹, Stone PJ, Felix JC, Amezcuca CA, Groshen S, Ye W, Kyser KL, Howard RS, Zahn CM, Muderspach LI, Lentz SE, Chernofsky MR.

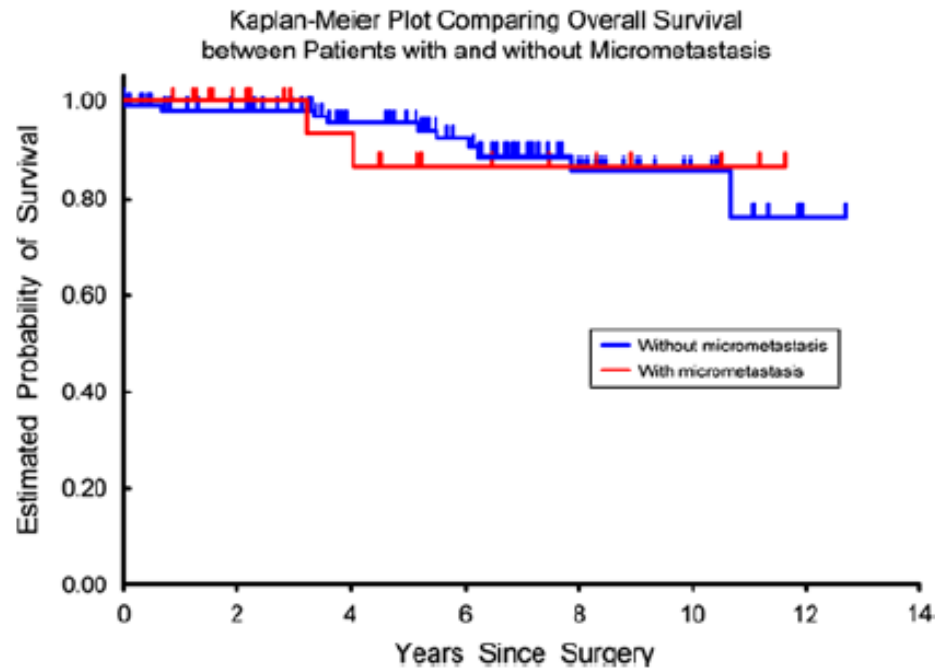


FIG. 1. Overall survival comparing patients with and without presence of lymph node micrometastasis.

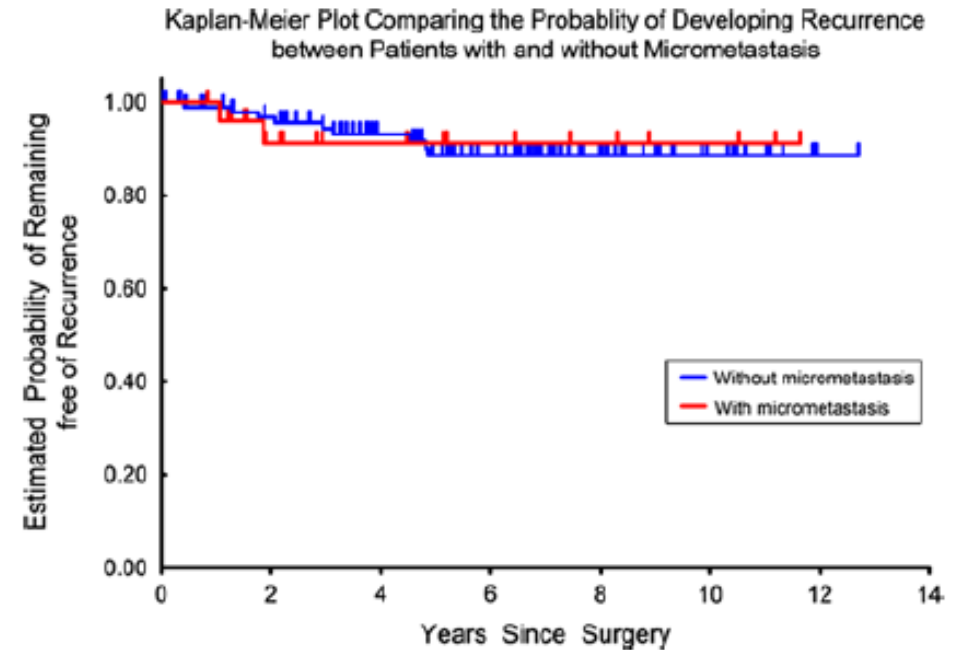


FIG. 2. Recurrence risk comparing patients with and without presence of lymph node micrometastasis.

LYMPHNODE SPREAD AND INVOLVEMENT CERVICAL CANCER

In the next years we will have results of 2 ongoing trial (SENTICOL III and SENTIX)



SLN INTRAOPERATIVE ASSESSMENT

High false negative rate of frozen section examination of sentinel lymph nodes in patients with cervical cancer

225 patients with cervical cancer FIGOIA2–IIB in whom at least one SN has been detected and intra-operatively processed

Diagnostic value of SN frozen section (as compared with SN ultrastaging results).

FS	All metastases	LVD	Macrometastases
Sensitivity	0.56 (0.44; 0.68)	0.08 (0.01; 0.28)	0.81 (0.67; 0.91)
Specificity	1.00 (0.97; 1.00)	1.00 (0.96; 1.00)	1.00 (0.97; 1.00)
PPV	1.00 (0.89; 1.00)	1.00 (0.19; 1.00)	1.00 (0.89; 1.00)
NPV	0.83 (0.76; 0.88)	0.87 (0.81; 0.91)	0.94 (0.89; 0.97)

FS=frozen section; LVD=low volume disease (micrometastases and ITC); NPV=negative predictive value; PPV=positive predictive value.

The false negative rate of FS was higher in bigger tumours (>20 cm³) and in the presence of LVSI

Only 2 MIC detected over 25 (Micrometastasis and ITC)

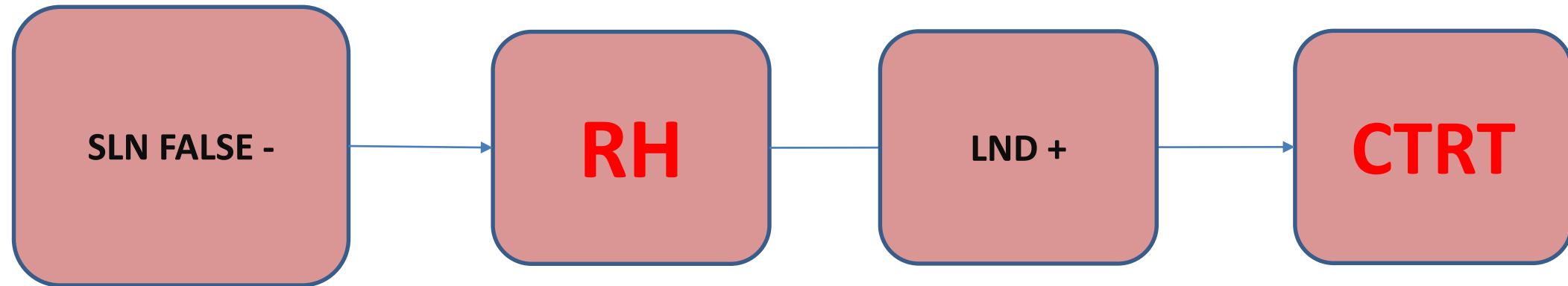
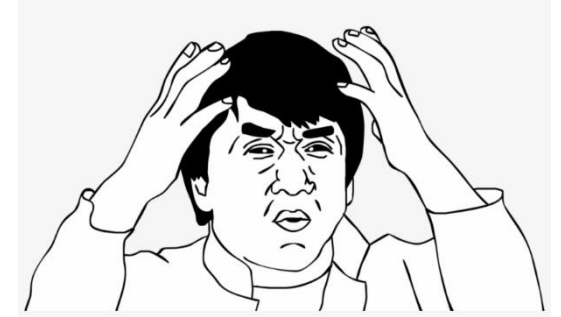
SLN INTRAOPERATIVE ASSESSMENT

Author	Sensitivity	False negative rate
Lecuru et al 2011	92%	8%
ROY et al, 2011	88%	12%
Cibula et al 2012	91%	9%
Martinez et al 2013	92%	8%
Salvo et al 2017	96.4%	3.6%

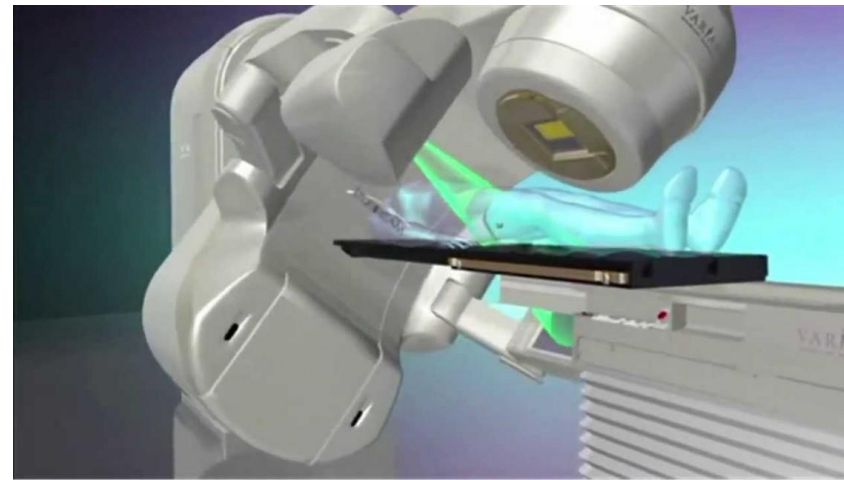


CERVICAL CANCER TREATMENT ACCORDING GUIDELINES

In case of False Negative SLN:



About 10%



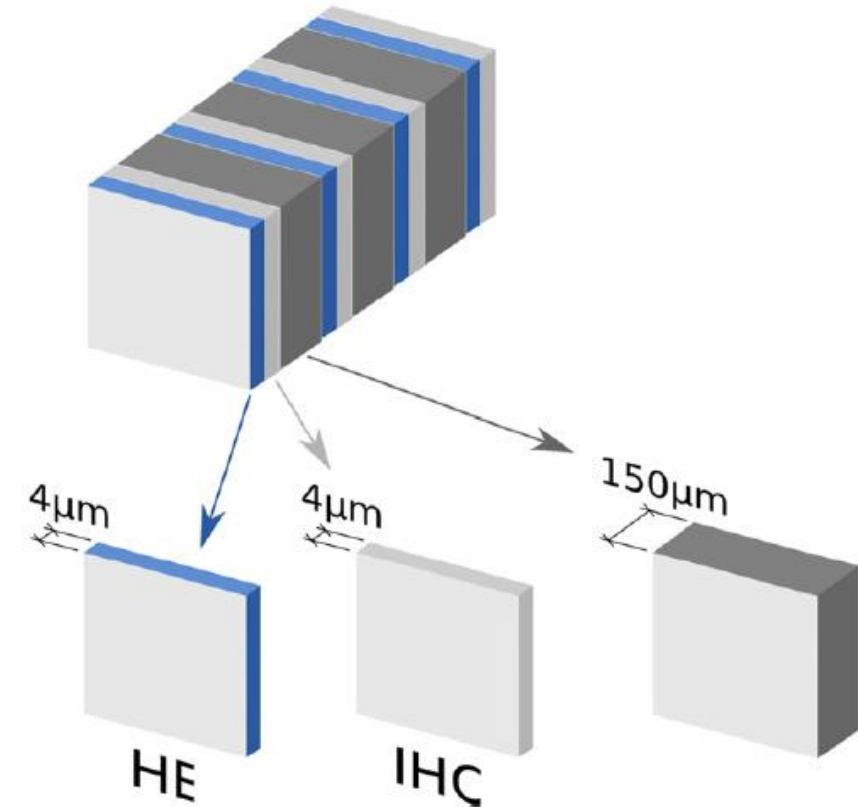
PATHOLOGICAL ULTRASTAGING

Risk of micrometastases in non-sentinel pelvic lymph nodes in cervical cancer

SLN ultrastaging **reached 100% sensitivity** for the presence of both MAC and MIC in pelvic LNs.

SLN and non-SLN pelvic lymph node status after ultrastaging (N = 17).

SLN	Non-SLN	N (%)
neg	neg	9 (53%)
ITC	neg	3 (18%)
MIC	neg	2 (12%)
MAC	neg	1 (6%)
MIC	MIC	2 (12%)



Two consecutive sections (4 μm-thick) were obtained in regular 150 μm intervals. The first section was stained with H&E and the second section was examined immunohistochemically with antibody against cytokeratins (AE1/AE3).

SLN OPEN QUESTION

WE NEED MORE EVIDENCE?

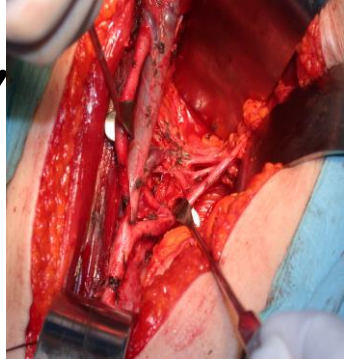
Heterogeneity of treatment worldwide – different sense to SLN BIOPSY

We don't know the real impact of **MICROMETASTASES** on survival

Standard intraop evaluation – **HIGH FALSE NEGATIVE RATE (10%)**

Patients should be informed that they could receive a **COMBINED TREATMENT** in spite of intraoperative examination

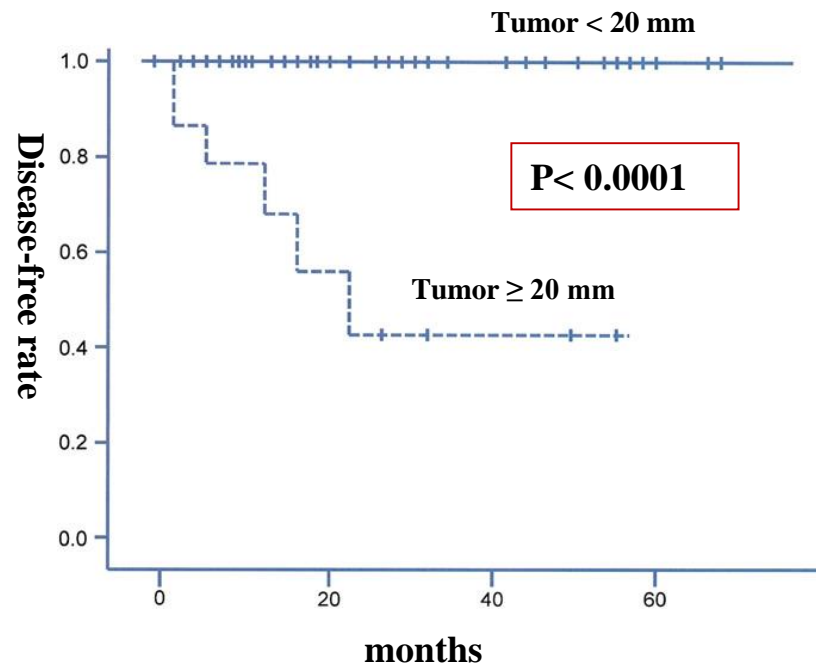
Few data on **ONCOLOGICAL SAFETY** – we are waiting for SENTICOL III -SENTIX TRIAL and we will have **PROBLEM** with PFS data – LACC TRIAL



RADICAL TRACHELECTOMY IN IB1

Abdominal radical trachelectomy as a fertility-sparing procedure in women with early-stage cervical cancer in a series of 61 women

Hiroshi Nishio^a, Takuma Fujii^{a,*}, Kaori Kameyama^b, Nobuyuki Susumu^a, Masaru Nakamura^a, Takashi Iwata^a, Daisuke Aoki^a



RECURRENCE RATE: 9,8% (6/61)

Patient	Tumor diameter (mm)	LVSI	Time to recurrence (months)	Recurrent sites	Treatment for recurrence
1*	9 ^a	-	4	Cervical stump	Hysterectomy
			45	Fallopian tube	BSO+PALA
2	27 ^b	+	4	Bladder surface	Chemoradiation
			13	Common iliac artery LN	Chemotherapy
3	35 ^b	+	18	Lt. pelvic sidewall	Heavy charged particle radiotherapy
4	38 ^b	+	8	Surface of sacral bone	Radiation
5	20 ^b	-	14	Common iliac artery LN	Radiation
6	20 ^b	+	23	Rt. pelvic sidewall	Chemoradiation

Rt: right, Lt; left, BSO; bilateral salpingo-oophorectomy, PALA; paraarortic lymphadenectomy, LN; lymph node.

There were 49 patients with a tumor diameter of < 20 mm, and none of the patients with a tumor diameter of < 20 mm developed disease recurrence

RADICAL TRACHELECTOMY IN IB1

Surgery Insight: radical vaginal trachelectomy as a method of fertility preservation for cervical cancer

Mario E Beiner and Allan Covens*

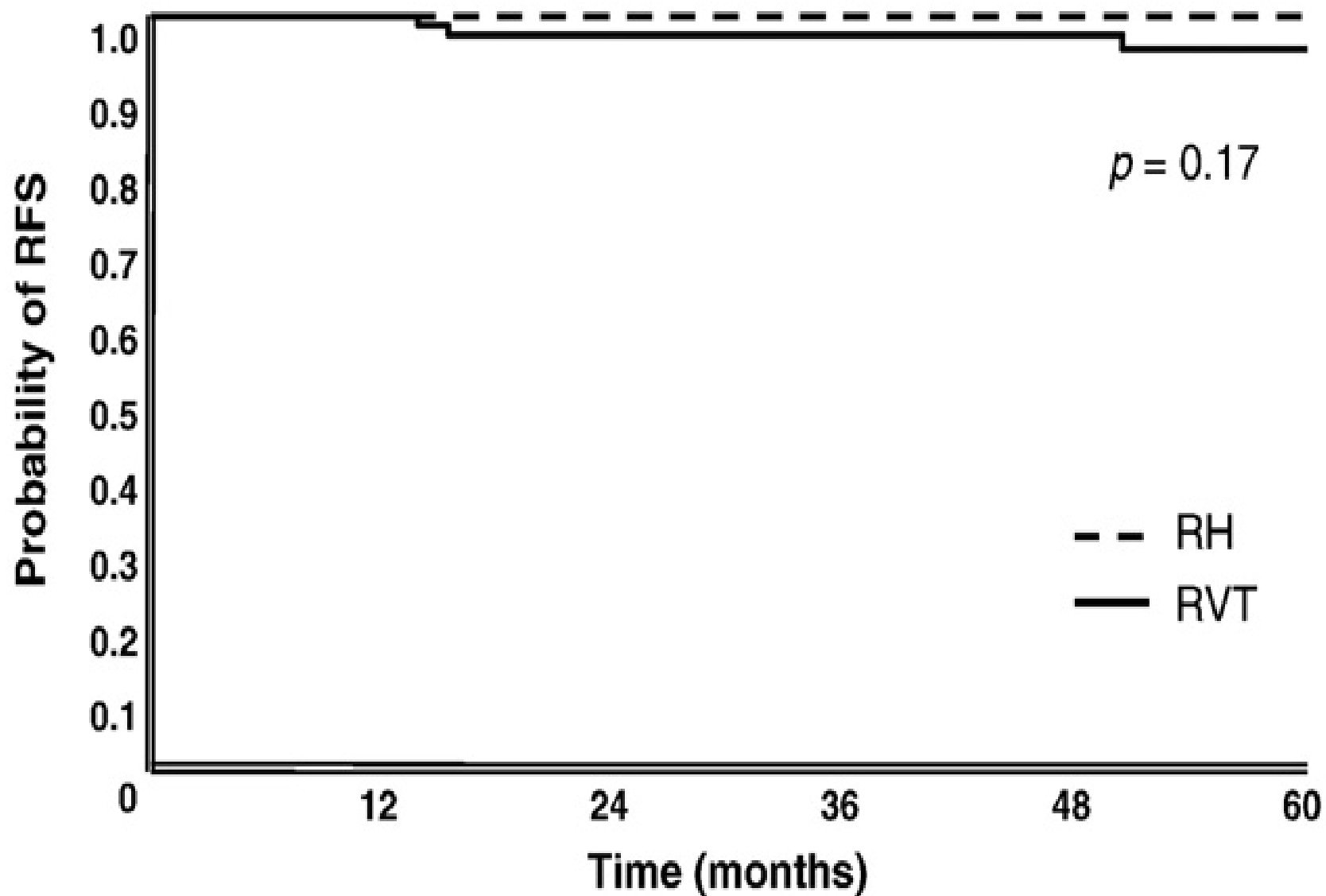
RISK FACTORS FOR TUMOR RECURRENCE

- **Tumor size** > 2 cm (p = 0.03)
- **LVSI** (p = 0.001)

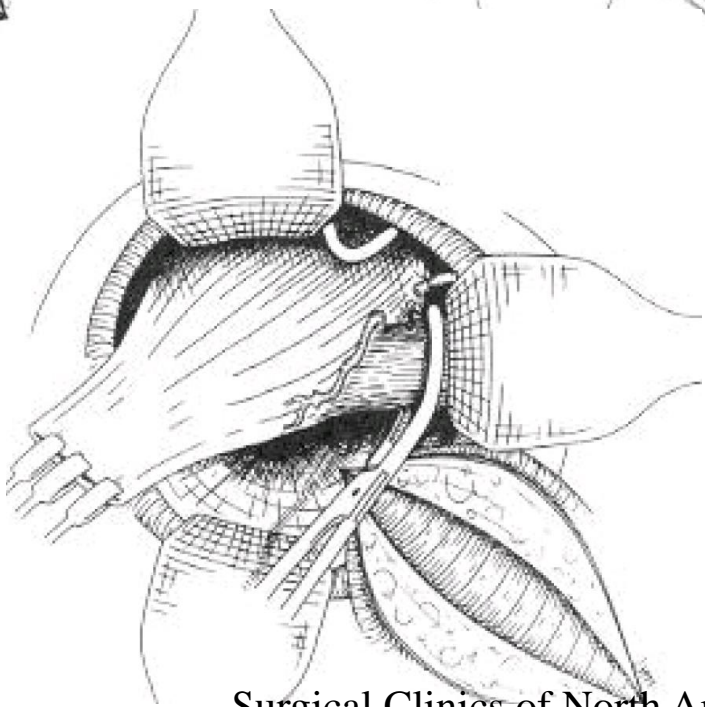
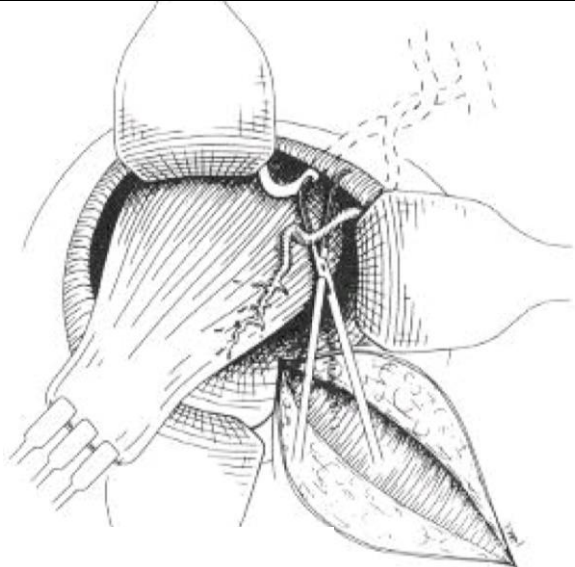
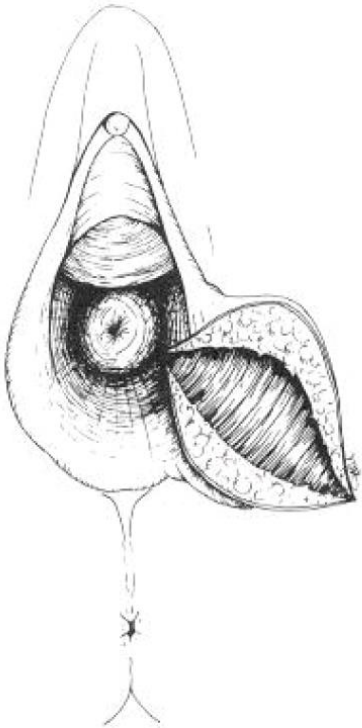
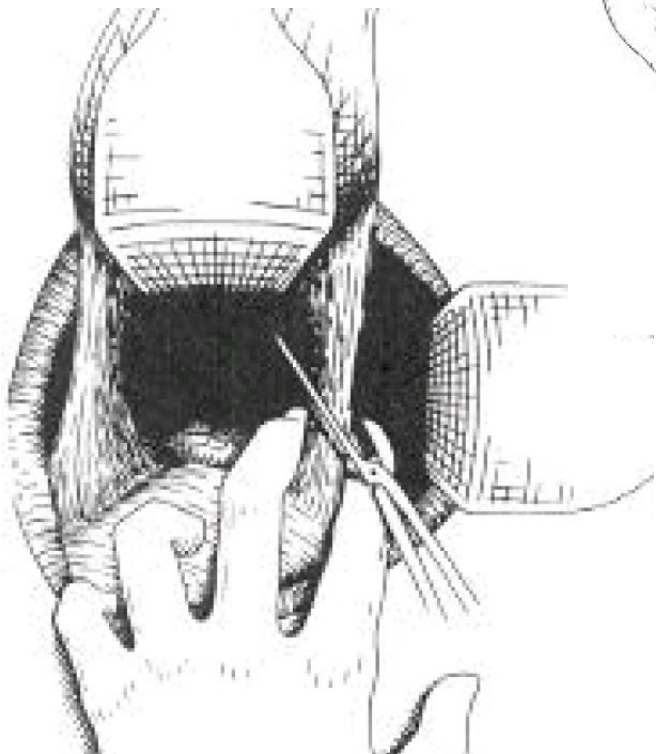
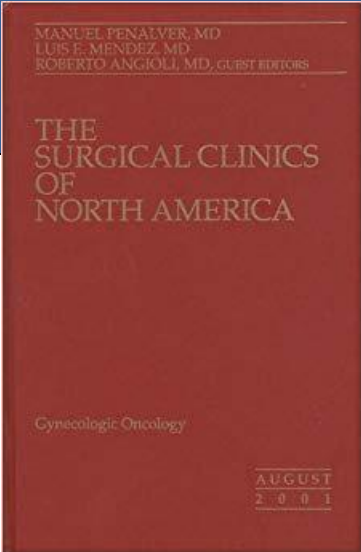
Total number of patients	Number of patients with or without LN metastasis (%)		Histology (%)		Tumor size (%)		Number of patients with or without LVSI (%)		Median time to recurrence (months)	Median F/U (months)	Deaths (%)
	+	-	SCC	AC ^a	>2 cm	<2 cm	+	-			
5/123 ¹¹	2/7 (28)	3/116 (3)	-	-	-	-	1/39 (2)	4/84 (5)	34 (range 15-84)	45 (range 1-120)	4
4/108 ¹⁰	0/4	4/104 (4)	1/75 (1)	3/33 (9)	1/1 (100)	3/107 (100)	-	-	14 (range 3-34)	29 (range 1-128)	2
4/109 ^{2,c}	-	-	3/76 (4)	1/19 (5)	4/28 (14)	0/68	3/24 (13)	1/72 (1)	34 (range 7-93)	76 (range 4-176)	3
7/93 ¹²	1/2 (50)	6/91 (6)	4/40 (10)	3/50 (6)	1/8 (12)	6/85 (70)	6/31 (19)	1/62 (2)	-	30 (range 1-103)	4
6/82 ⁴	1/5 (20)	5/77 (6)	2/42 (5) ^b	1/30 (3) ^b	2/8 (25) ^b	1/64 (1) ^b	-	-	25 (range 9-60)	60 (range 6-156)	4
2/21 ⁹	0/1	2/20	-	-	-	-	2/3	0/18	-	31 (range 8-81)	0
0/12 ^{8,b}	0/0	0/12	0/4	0/6	0/2	0/10	0/1	0/11	-	48 (range 28-84)	0
28/548 (5.1%) ^d	4/19 (21) ^d	18/421 (4) ^d	10/251 (4) ^d	8/141 (6) ^d	8/47 (17) ^d	10/334 (3) ^d	12/97 (12) ^d	6/247 (2) ^d	27 (range 3-93) ^d	47 (range 1-176) ^d	17/548 (3.1) ^d

Includes adenosquamous tumors. (b)Information missing on other recurrences.(c)Information missing on 13 abandoned cases.(d) AC,adenocarcinoma;F/U, follow-up; LN,lymphnode;LVSI,Lymphovascular space involvement; SCC,squamous-cell carcinoma

RVT VS RADICAL HYSTERECTOMY FOR 1B1 (<2CM) CERVICAL CANCER



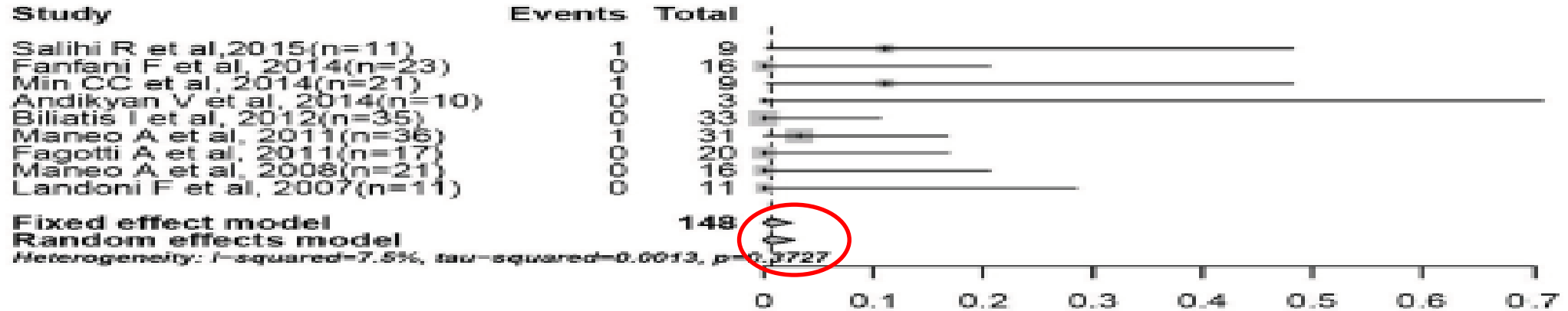
SCHAUTA-AMREICH RVH



CONE IN IB1 (<2CM) IS IT SAFE?

A

Type=CON



**POOLED
RECURRENCE RATE**

0,6% (P>0,05)

Some authors think yes!

CONCLUSIONS

Optimal pregnancy rate

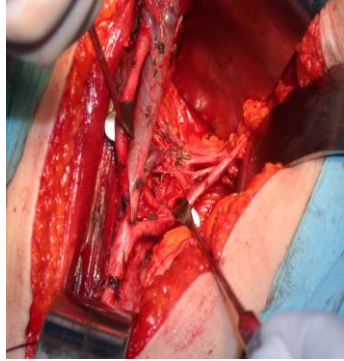
Low complications rate

Heterogeneity of treatment worldwide

We don't know the real impact of MICROMETASTASES on survival

Few data on ONCOLOGICAL SAFETY ON SLN – we are waiting for SENTICOL III – SENTIX TRIAL and e will have PROBLEM with PFS data – LACC TRIAL

Radical trachelectomy – standardization of techniques



SEE YOU AT IGCS 2020

IGCS 2020 ROME



SEPTEMBER 10-13, 2020
AUDITORIUM PARCO DELLA MUSICA
ROME - ITALY



Thank you!

A blue ballpoint pen is shown in the process of writing the words "Thank you!" in a black, cursive script on a white, slightly textured surface.

igcs2020.com

CLASS I VERSUS CLASS III HYSTERECTOMY

Class I versus class III radical hysterectomy in stage IB1-IIA cervical cancer.
A prospective randomized study

F. Landoni ^a, A. Manco ^b, I. Zapardiel ^{a,*}, V. Zanagnolo ^a, C. Mangioni ^b

Table 1
Patients baseline characteristics and pathologic findings.

		Class I	Class III	<i>p</i>
FIGO stage	IB	53	60	0.07
	IIA	9	3	
Cervical diameter	≤2 cm	4	4	0.15
	2.1–3 cm	32	24	
	3.1–4 cm	26	35	
	median (range)	3.2 (2–4)	3.3 (2–4)	
	standard deviation	0.8	0.8	
Age	≤40 years	6	28	<0.001
	41–50 years	14	12	
	51–60 years	23	15	
	>60 years	19	8	
	median (range)	55 (34–82)	44 (24–72)	
Pathologic findings	standard deviation	11	12	
	Adenocarcinoma	10	7	0.4
	Grade 3	24	30	0.5
	LVSI	26	26	0.9
	Parametrial invasion	8	7	0.5
	Massive	1	0	
	Microscopic	7	7	
	Cut-through	4	2	0.4
	Uterine involvement	14	12	0.6
	Node involvement	13	11	0.6
	Micrometastasis	4	6	
	Macrometastasis	9	5	
	Positive nodes			0.6
	1 Node	4	3	
2 Nodes	6	6		
>2 Nodes	3	2		
Paraortic involvement	3	0	0.2	

LVSI: lymph-vascular space invasion.

SAME OS for CLASS I and III

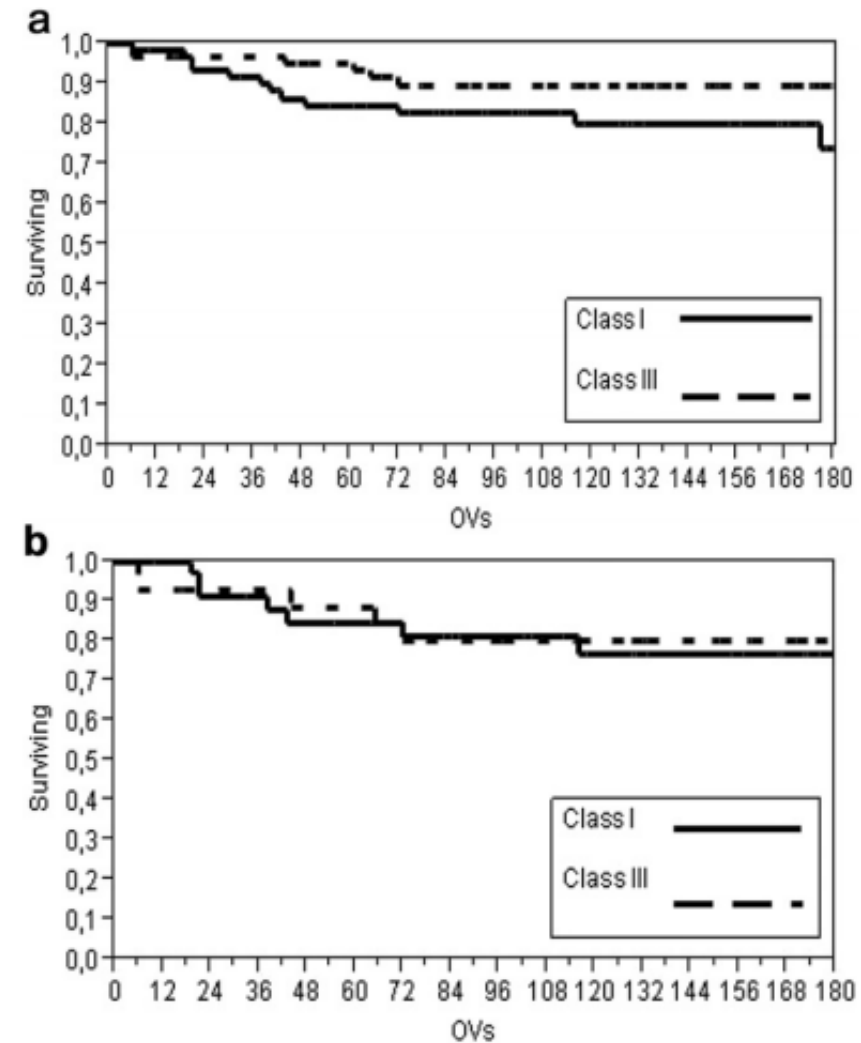


Figure 2. (a) Overall survival curves of both groups by Cox method; *p* = 0.1. (b) Survival curves for tumors <3 cm of diameter in both groups by Cox method; *p* = 0.88. (OVs: months).

SIMPLE TRACHELECTOMY

Simple extrafascial trachelectomy and pelvic bilateral lymphadenectomy in early stage cervical cancer

Innocenza Palaia *, Angela Musella, Filippo Bellati, Claudia Marchetti, Violante Di Donato, Giorgia Perniola, Pierluigi Benedetti Panici

Department of Gynecology, Obstetrics and Urologic Sciences, "La Sapienza" University, Rome, Italy

Characteristics of patients.

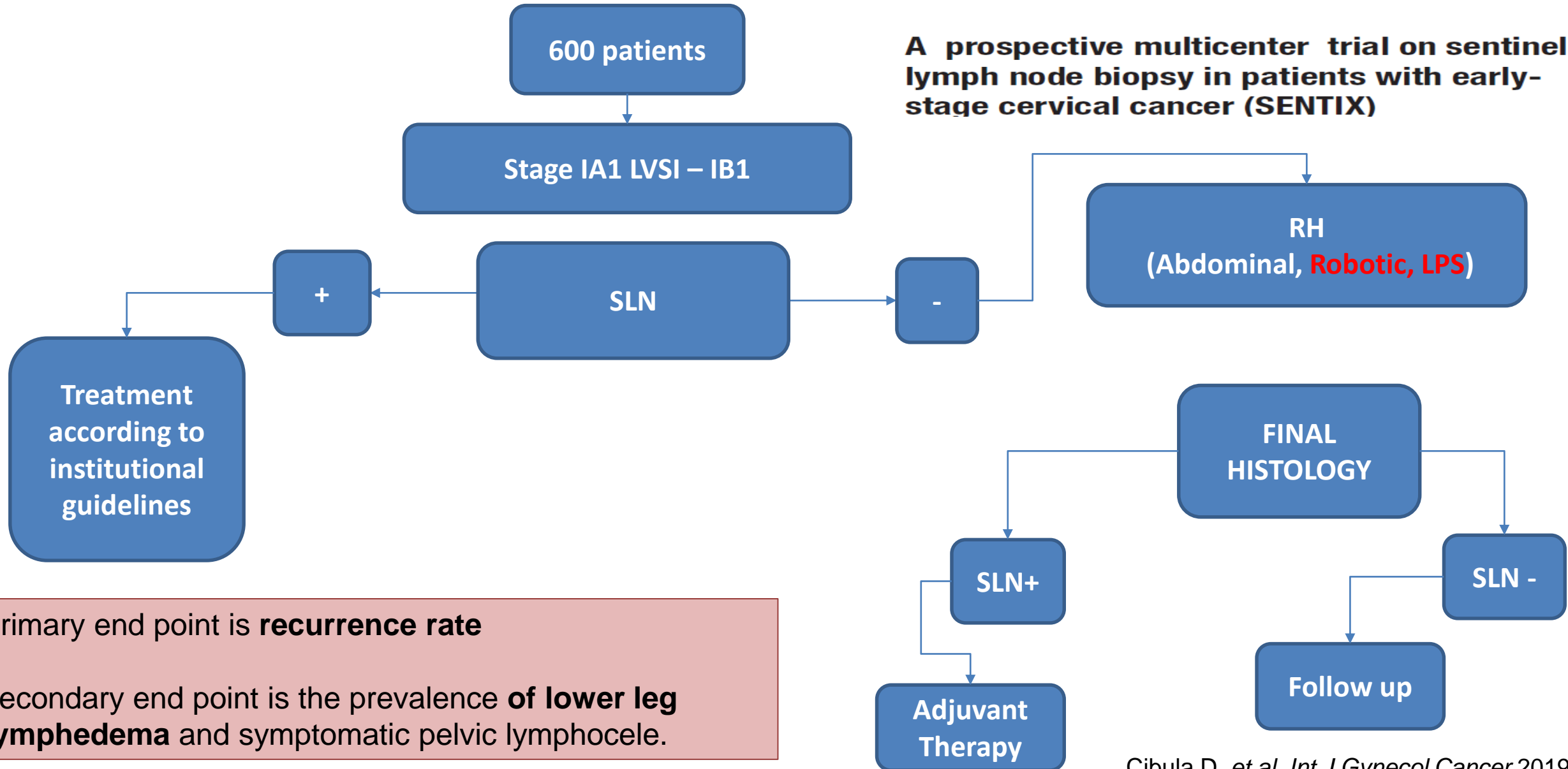
Characteristics	Variables
Age, median (range) years	32 (28–37)
Hystotype, n (%)	
Squamous cell	11/14 (79)
Adenocarcinoma	3/14 (21)
Adenosquamous	–
FIGO STAGE	
IA2	5/14 (36)
IB1	9/14 (64)
Tumor size, median (range), mm	17 (14–19)

Perioperative data.

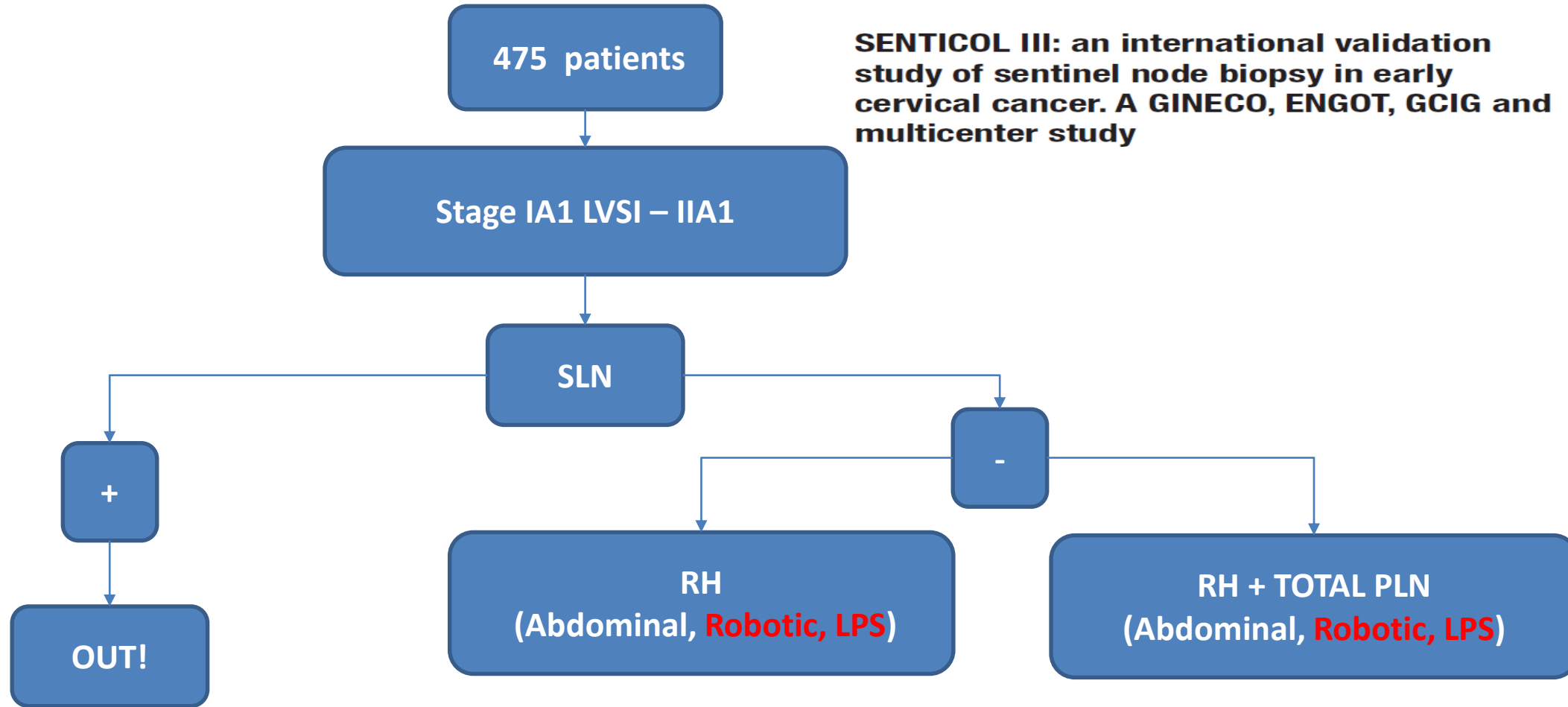
Characteristics	Variables
Operative time, median (range), minutes	120 (95–210)
Blood loss, median (range), ml	200 (100–400)
Postoperative stay, median (range), days	2 (2–4)
Severe Intraoperative complications, n (%)	–
Postoperative complications, n (%)	2 (14%) (cervical stenosis)
Pregnancy rate, n (%)	8/14 (57)
Term delivery, n (%)	3/8 (37)

NO RECURRENCES WERE DETECTED

SURVIVAL ANALYSIS



SURVIVAL ANALYSIS



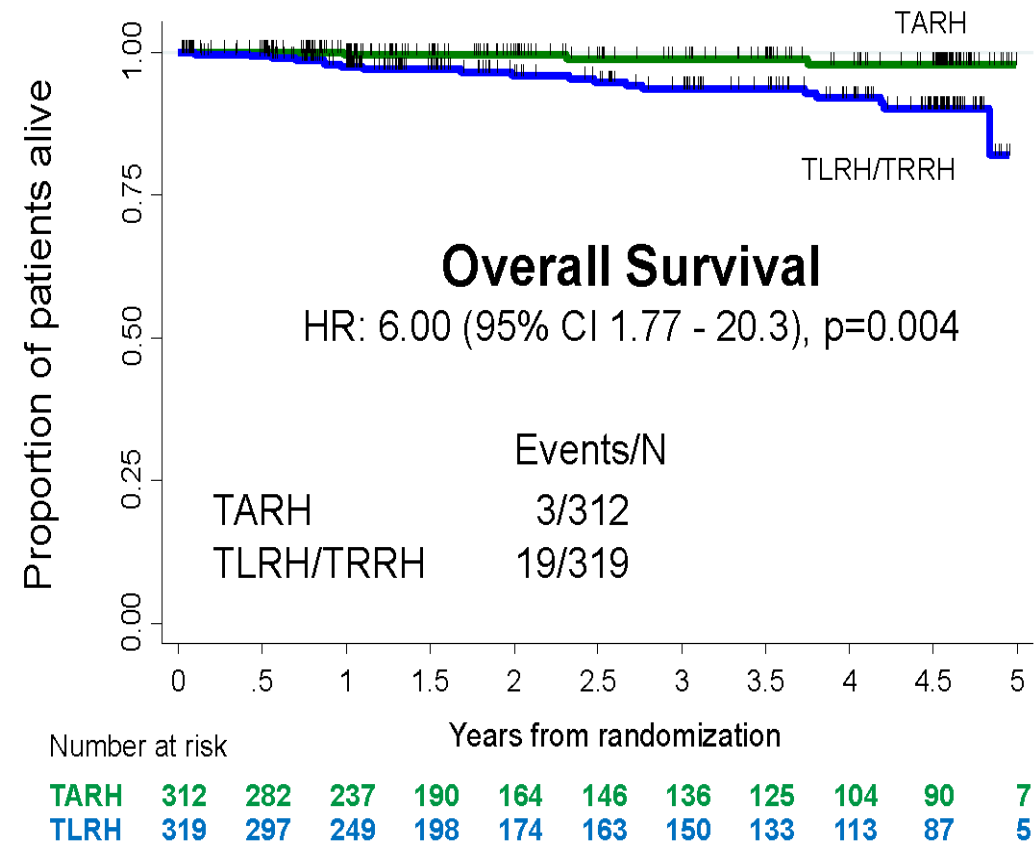
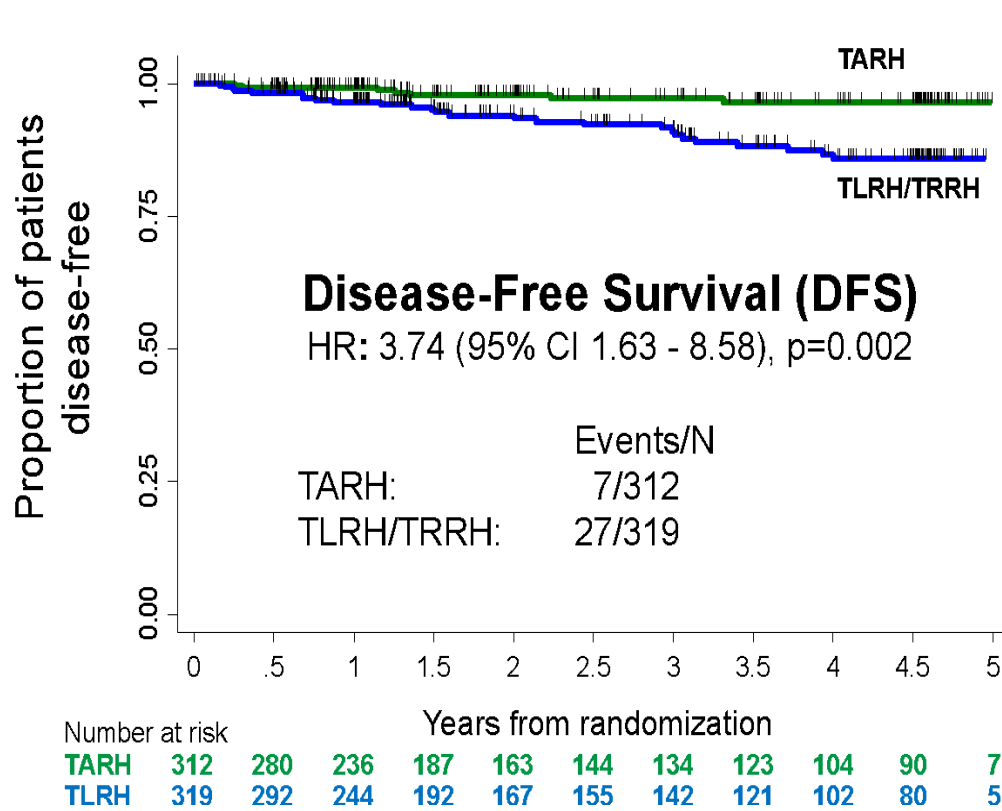
Primary Objective 3-year disease-free survival
SLN biopsy VS SLN biopsy + pelvic
lymphadenectomy

SURVIVAL ANALYSIS

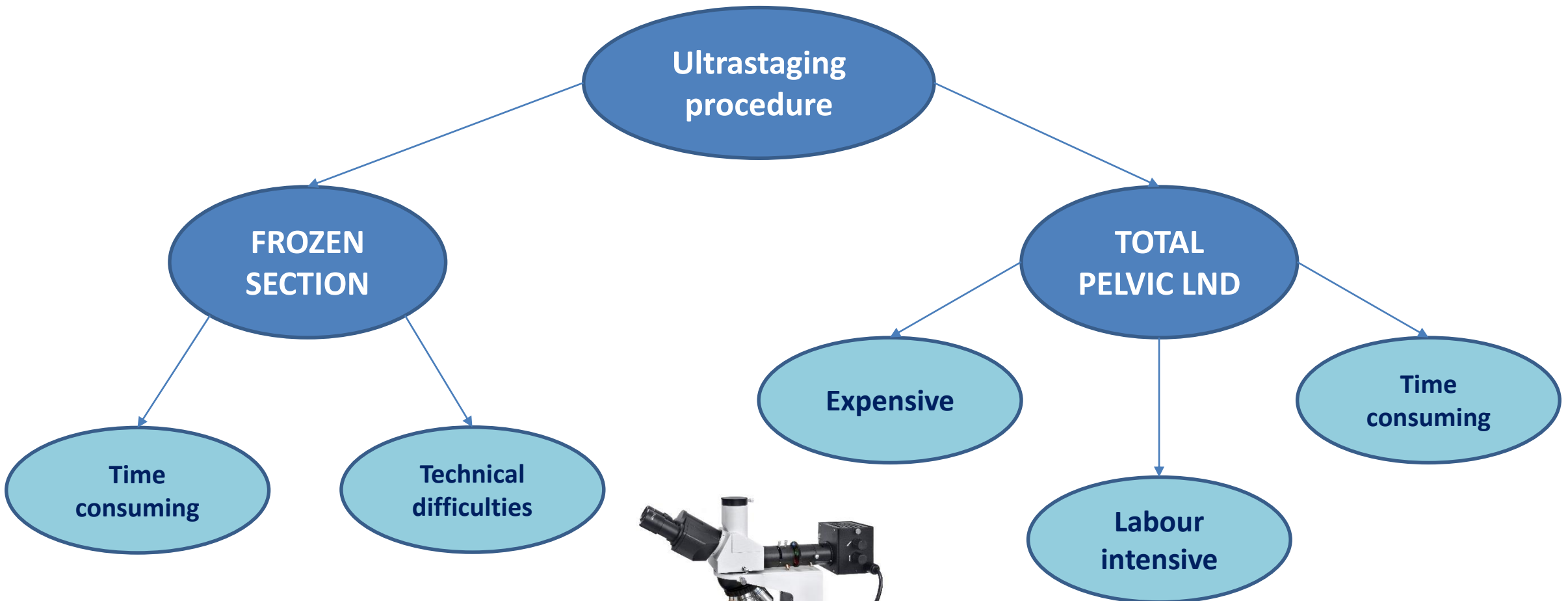
Minimally Invasive or Abdominal Radical Hysterectomy for Cervical Cancer



The NEW ENGLAND
JOURNAL of MEDICINE

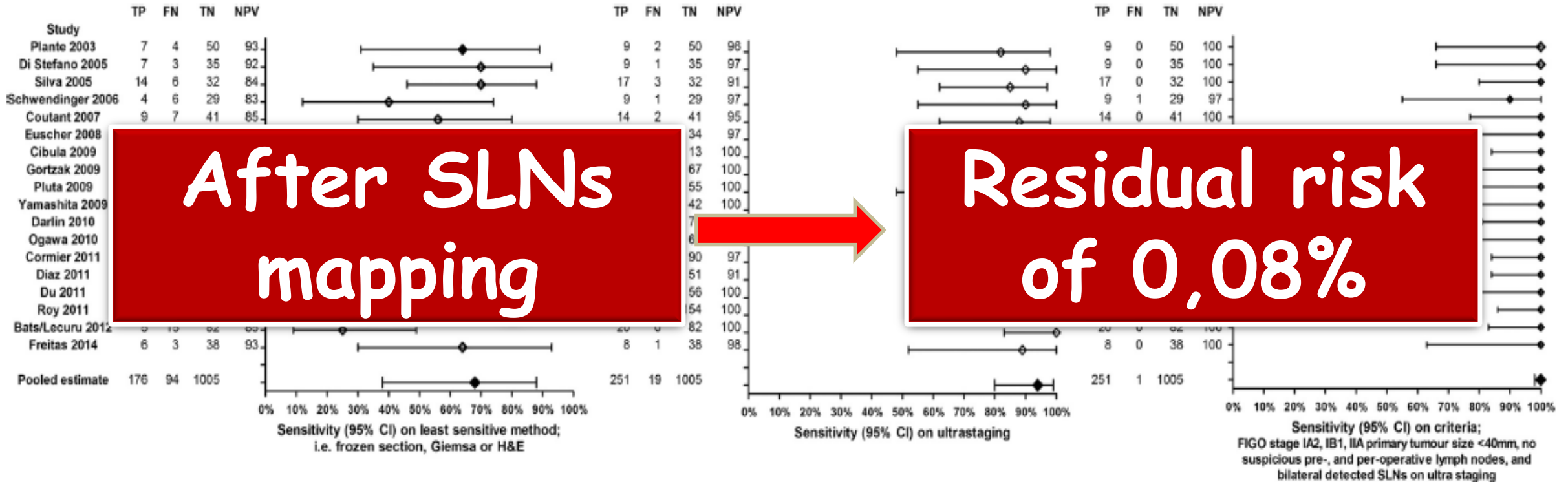


LIMITATION OF ULTRASTAGING PROCEDURE



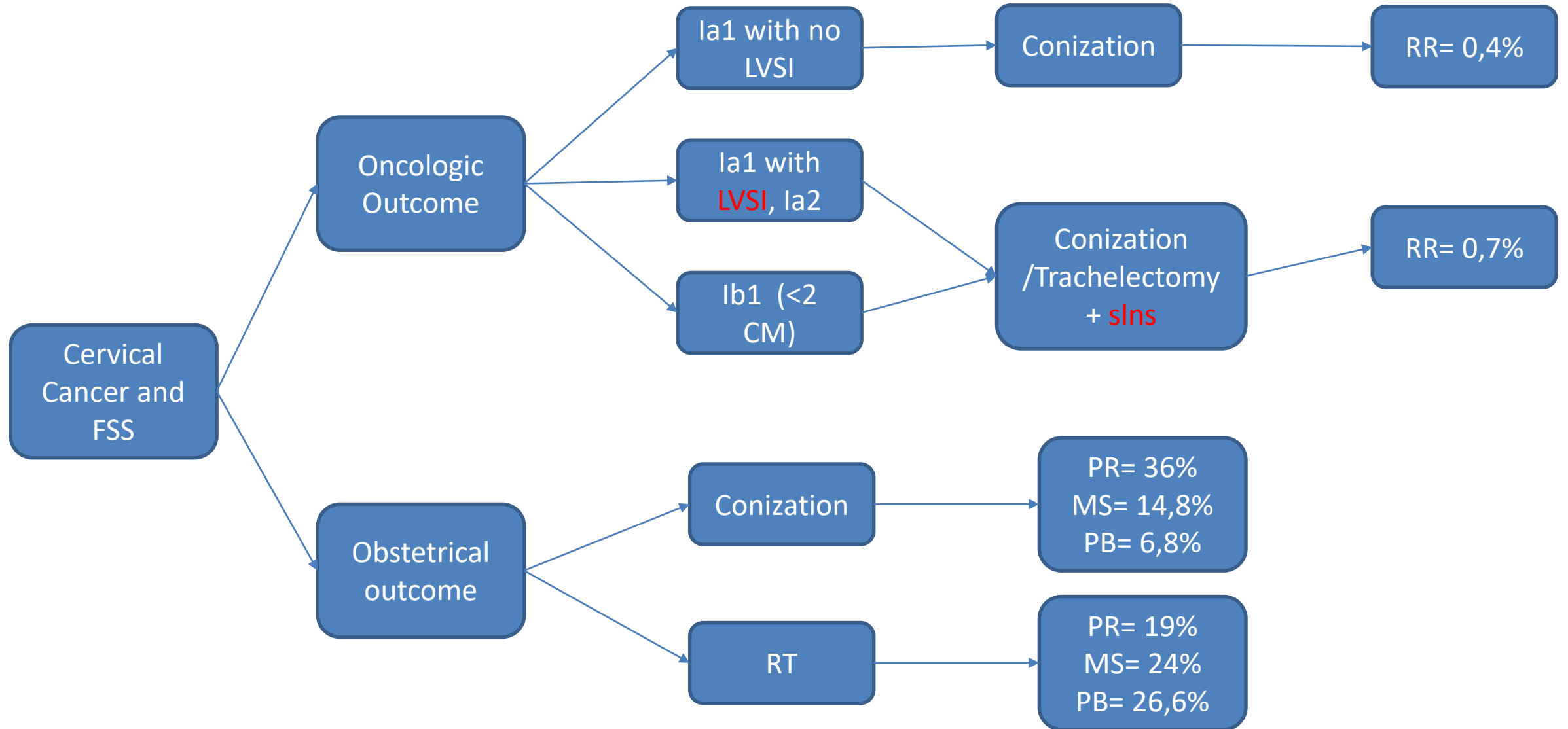
PATHOLOGICAL ULTRASTAGING

47 Studies - 4130 patients



Early stage cervical cancer patients (FIGO stages IA2, IB1, and IIA primary tumor size $\leq 40\text{mm}$) who have no suspicious lymph nodes on either pre-operative imaging or during surgery, and have bilateral negative SLNs after ultra staging, have a **residual risk of 0.08% on occult metastases**. On the basis of these results we recommend not to perform a full PLND in these patients.

SO...



CONCLUSION

IGCS GOALS



SHARE KNOWLEDGE

CONNECT PROFESSIONALS
AROUND THE WORLD

SUPPORT RESEARCH

PROVIDE EDUCATION AND
TRAINING WORLDWIDE

RAISE PUBLIC AWARENESS
OF GYNECOLOGICAL CANCERS



INCREASE OF MEMBERS

2015



900 members

2018



2650 members

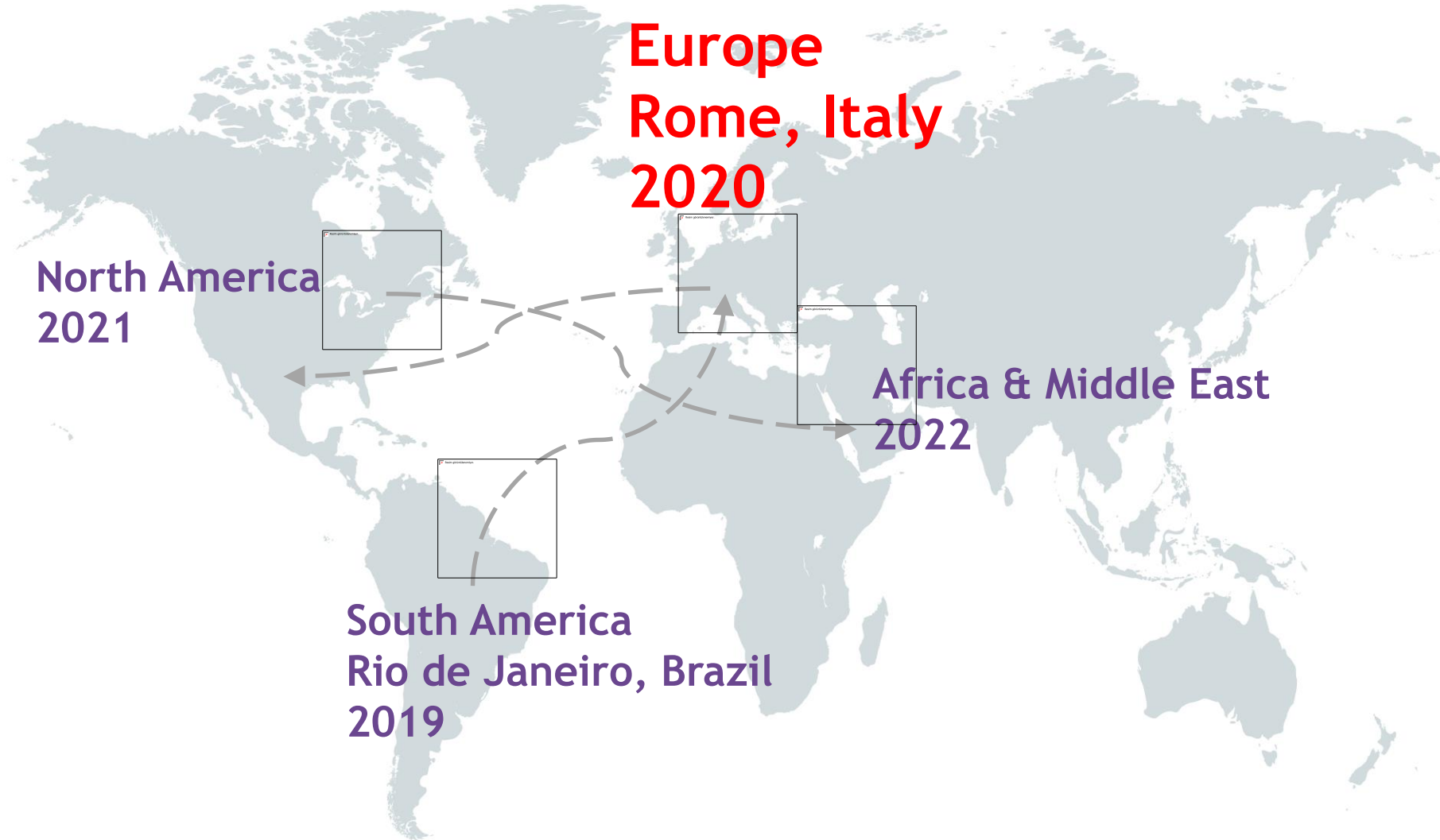
2019



2800 members



FUTURE AND POTENTIAL LOCATIONS



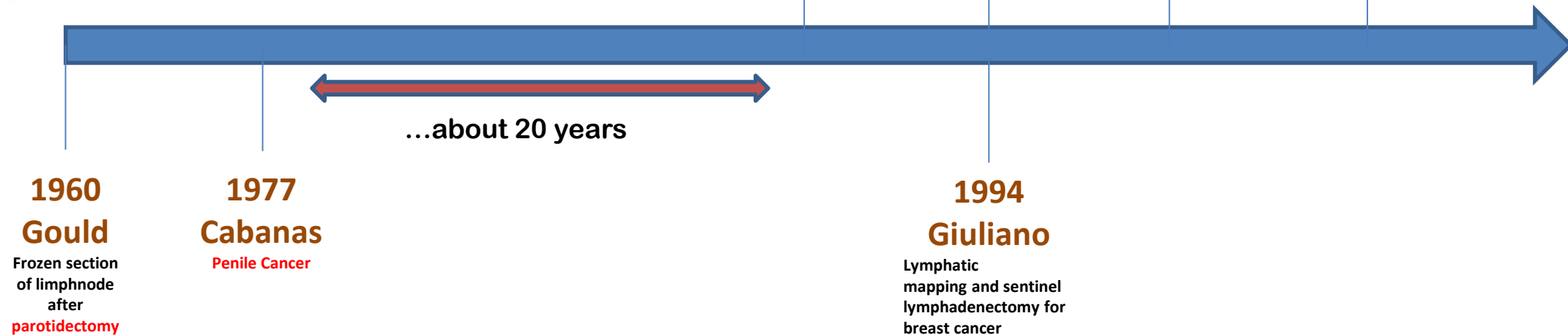
HISTORY OF CERVICAL CANCER SURGICAL TREATMENT

“The sentinel node is the first lymph node reached by metastasising cells from a primary tumour”

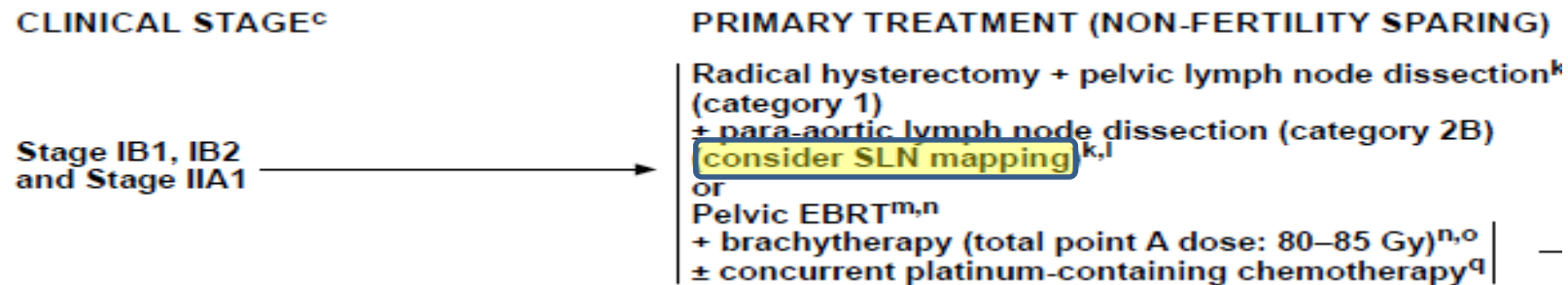
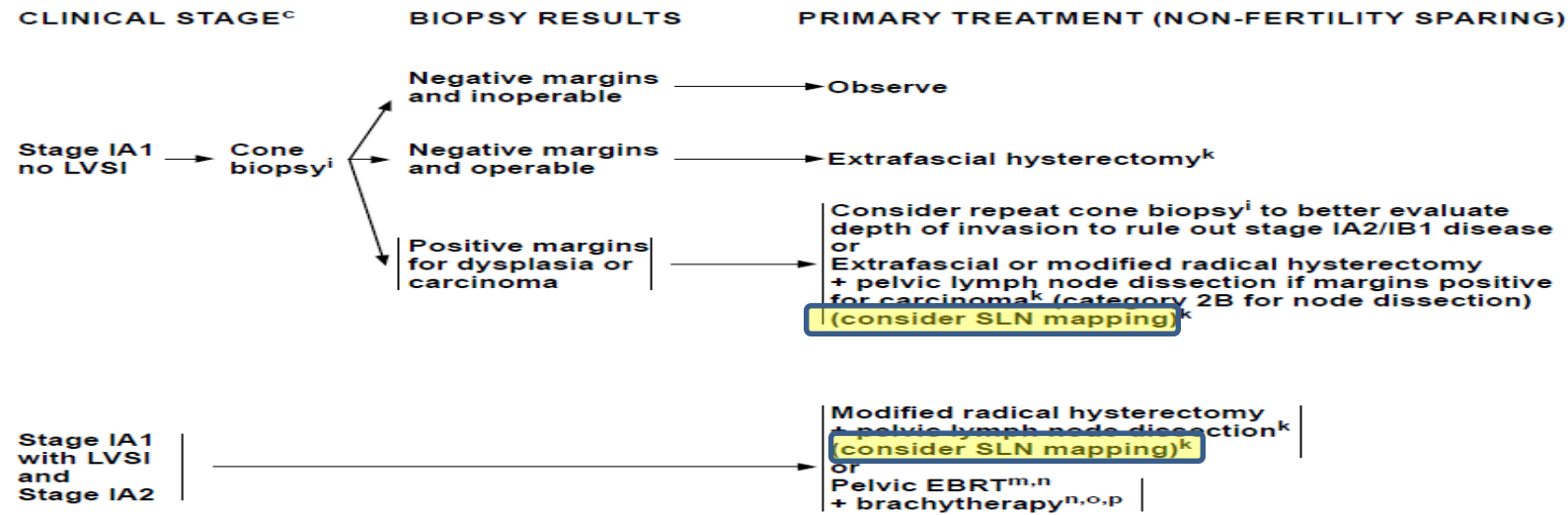
Tanis et al, 2000 Breast Cancer Research

SLN biopsy was **first reported in 1960** but took approximately 40 years to come into general practice following reports of good outcomes in patients with **melanoma**. After many years of observation and research on its use in various malignancies SLN biopsy has become the **standard surgical treatment** in patients with **malignant melanoma, breast, vulvar, and cervical cancers**

Laparoscopic assessment of the sentinel lymph nodes in early cervical cancer. Technique—preliminary results and future developments
Daniel Dargent^{a,*}, Raffaella Enria^b



GUIDELINES FOR SLN MAPPING

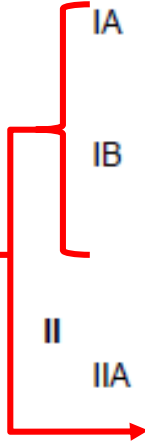


CERVICAL CANCER STAGING

International Federation of Gynecology and Obstetrics (FIGO) Surgical Staging of Cancer of the Cervix Uteri (2018)

Stage	Description
I	The carcinoma is strictly confined to the cervix (extension to the uterine corpus should be disregarded)
IA	Invasive carcinoma that can be diagnosed only by microscopy, with maximum depth of invasion <5 mm ^a
IA1	Measured stromal invasion <3 mm in depth
IA2	Measured stromal invasion ≥3 mm and <5 mm in depth
IB	Invasive carcinoma with measured deepest invasion ≥5 mm (greater than Stage IA), lesion limited to the cervix uteri ^b
IB1	Invasive carcinoma ≥5 mm depth of stromal invasion, and <2 cm in greatest dimension
IB2	Invasive carcinoma ≥2 cm and <4 cm in greatest dimension
IB3	Invasive carcinoma ≥4 cm in greatest dimension
II	The carcinoma invades beyond the uterus, but has not extended onto the lower third of the vagina or to the pelvic wall
IIA	Involvement limited to the upper two-thirds of the vagina without parametrial involvement
IIA1	Invasive carcinoma <4 cm in greatest dimension
IIA2	Invasive carcinoma ≥4 cm in greatest dimension
IIB	With parametrial involvement but not up to the pelvic wall
III	The carcinoma involves the lower third of the vagina and/or extends to the pelvic wall and/or causes hydronephrosis or nonfunctioning kidney and/or involves pelvic and/or para-aortic lymph nodes ^c
IIIA	The carcinoma involves the lower third of the vagina, with no extension to the pelvic wall
IIIB	Extension to the pelvic wall and/or hydronephrosis or nonfunctioning kidney (unless known to be due to another cause)
IIIC	Involvement of pelvic and/or para-aortic lymph nodes, irrespective of tumor size and extent (with r and p notations) ^c
IIIC1	Pelvic lymph node metastasis only
IIIC2	Para-aortic lymph node metastasis
IV	The carcinoma has extended beyond the true pelvis or has involved (biopsy proven) the mucosa of the bladder or rectum. (A bullous edema, as such, does not permit a case to be allotted to Stage IV)
IVA	Spread to adjacent pelvic organs
IVB	Spread to distant organs

Stages eligible for SLN mapping



IGCS



INTERNATIONAL
GYNECOLOGIC CANCER SOCIETY

