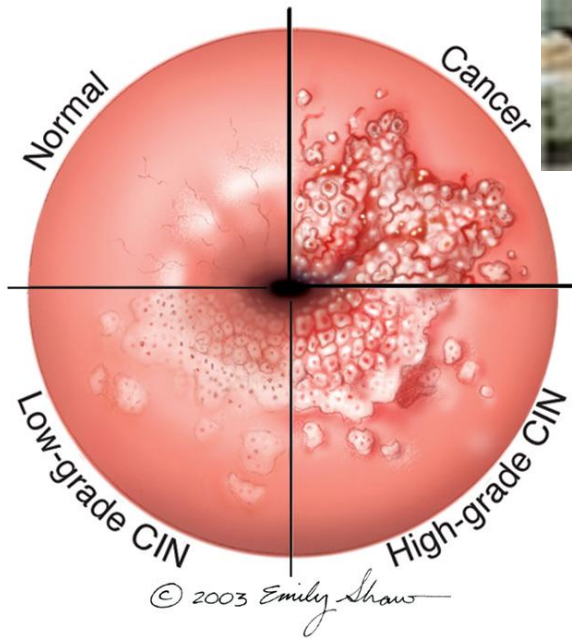
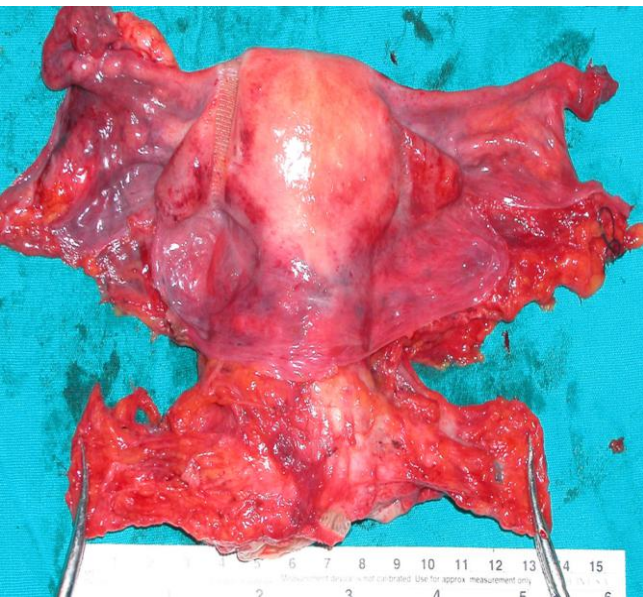


Surgery in early stage cervical cancer



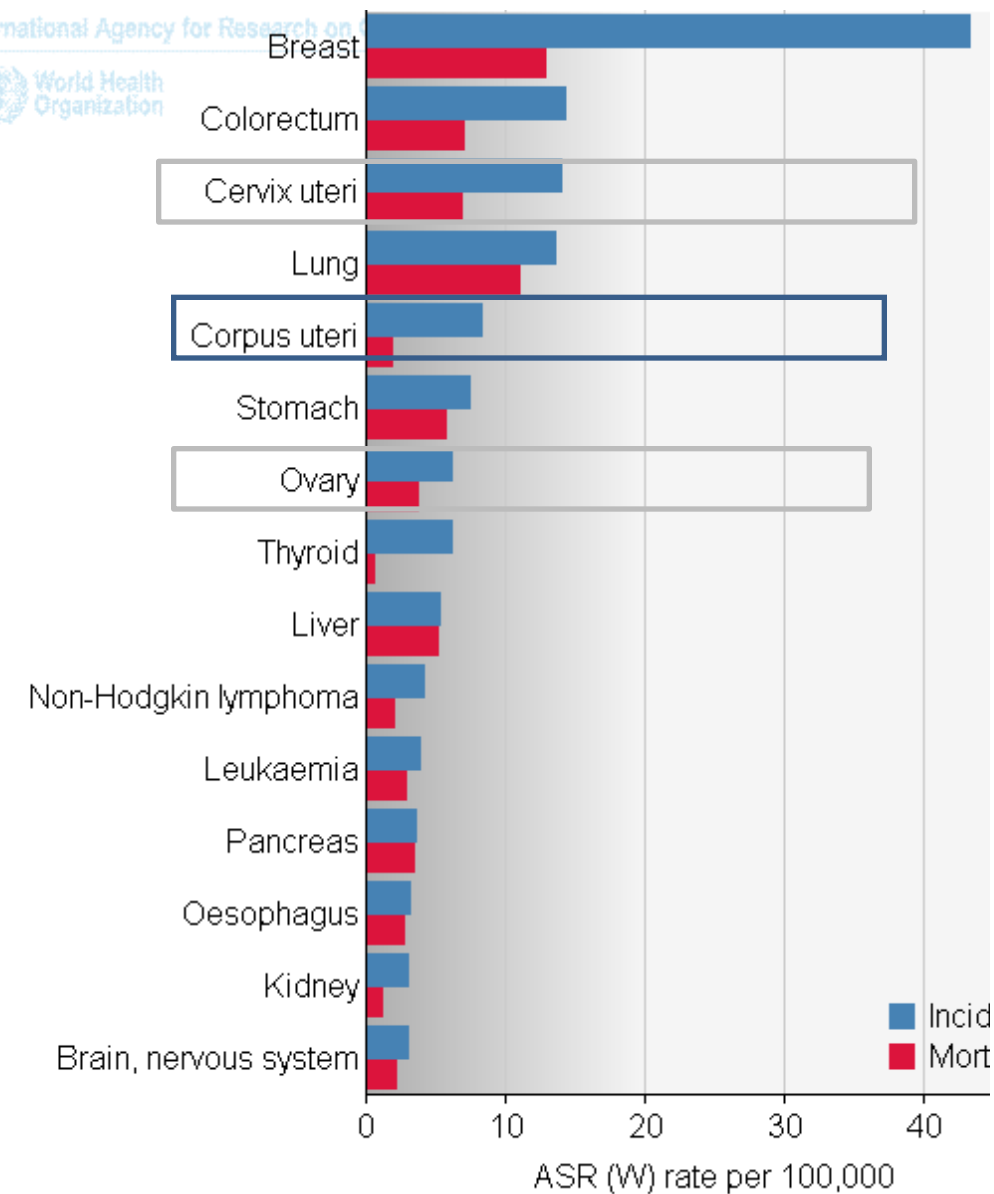
ESGO
European Society of
Gynaecological Oncology



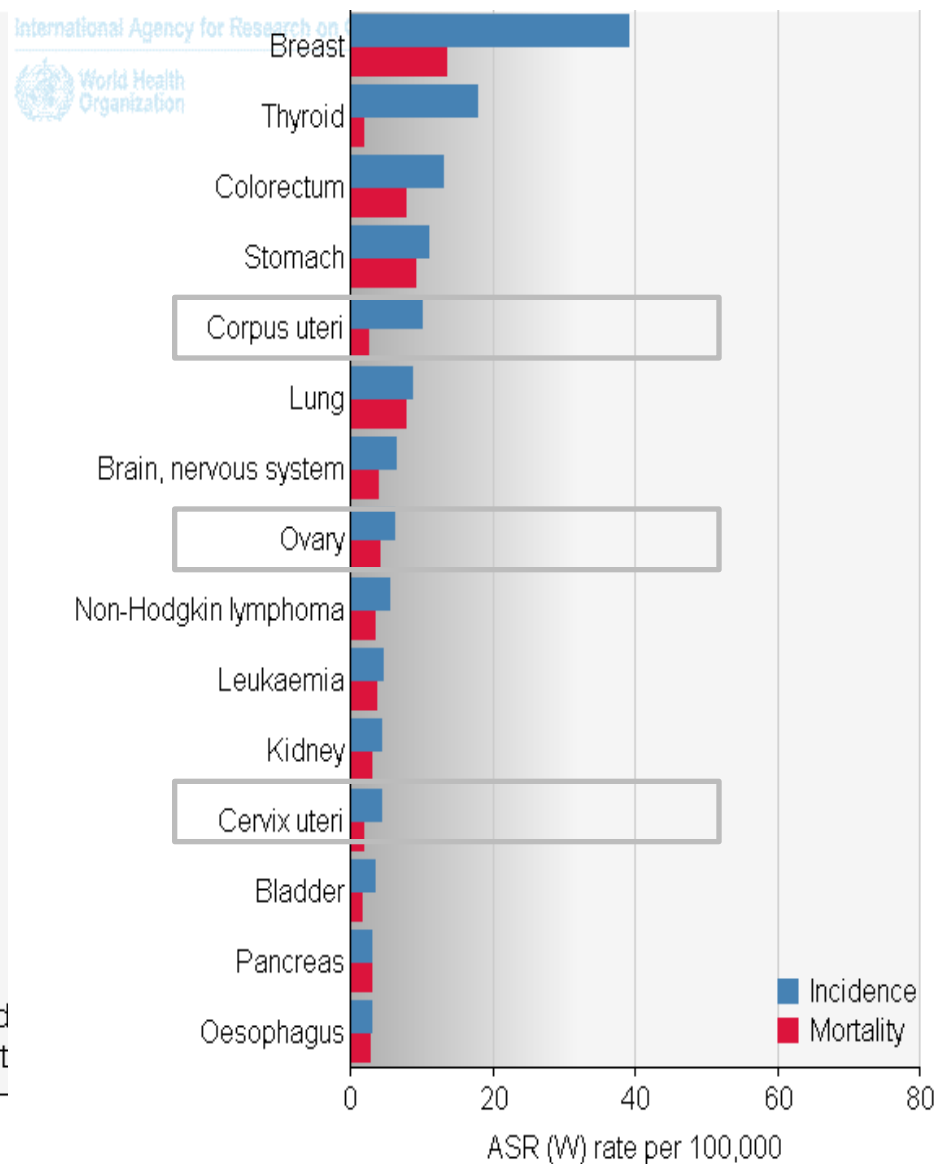
Ali Ayhan, MD

**Baskent University School of Medicine
Department of Obstetrics and Gynecology
Division of Gynecologic Oncology**

Globocan 2012 World



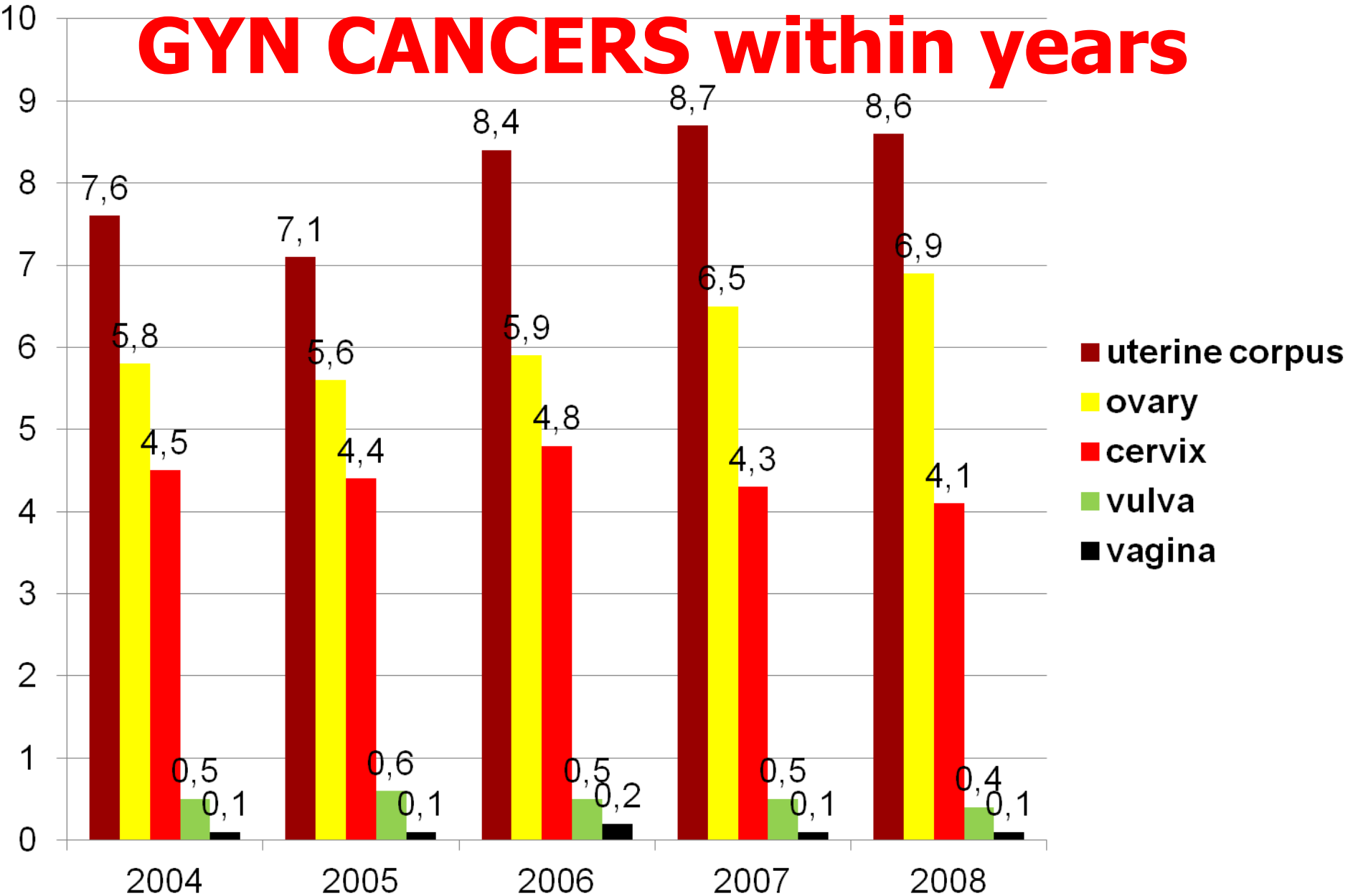
Globocan 2012 Turkey



Globocan 2012

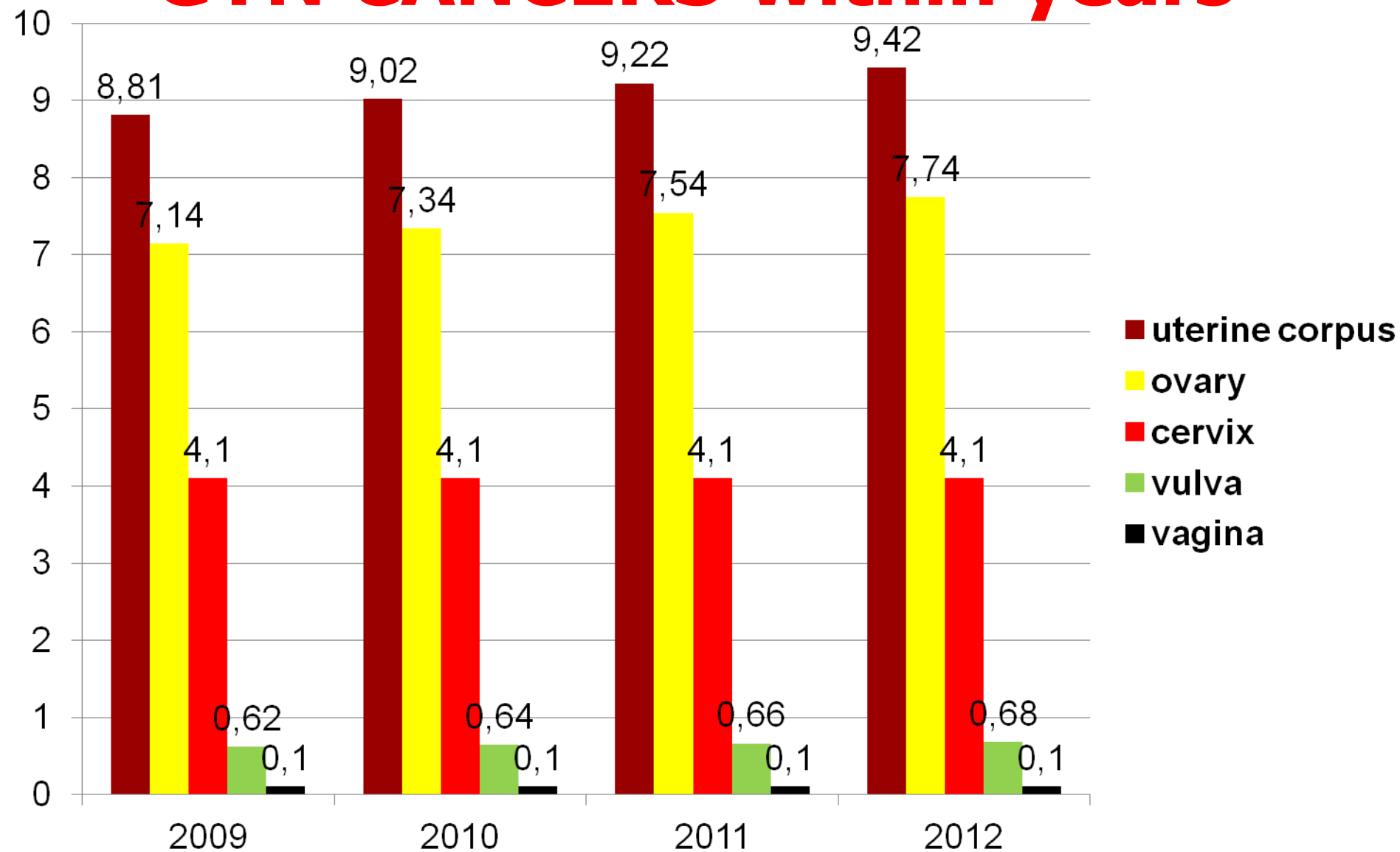
Cervical Cancer	Incidence (N/100.000)	Death (N/100.000)
Worldwide	527.624 (7)	265.653 (7,5)
Developed countries	83.078 (2,9)	35.495 (2,7)
Developing countries	444.546 (11,6)	230,158 (10,2)
Turkey	1686 (2,7)	663 (2)

GYN CANCERS within years



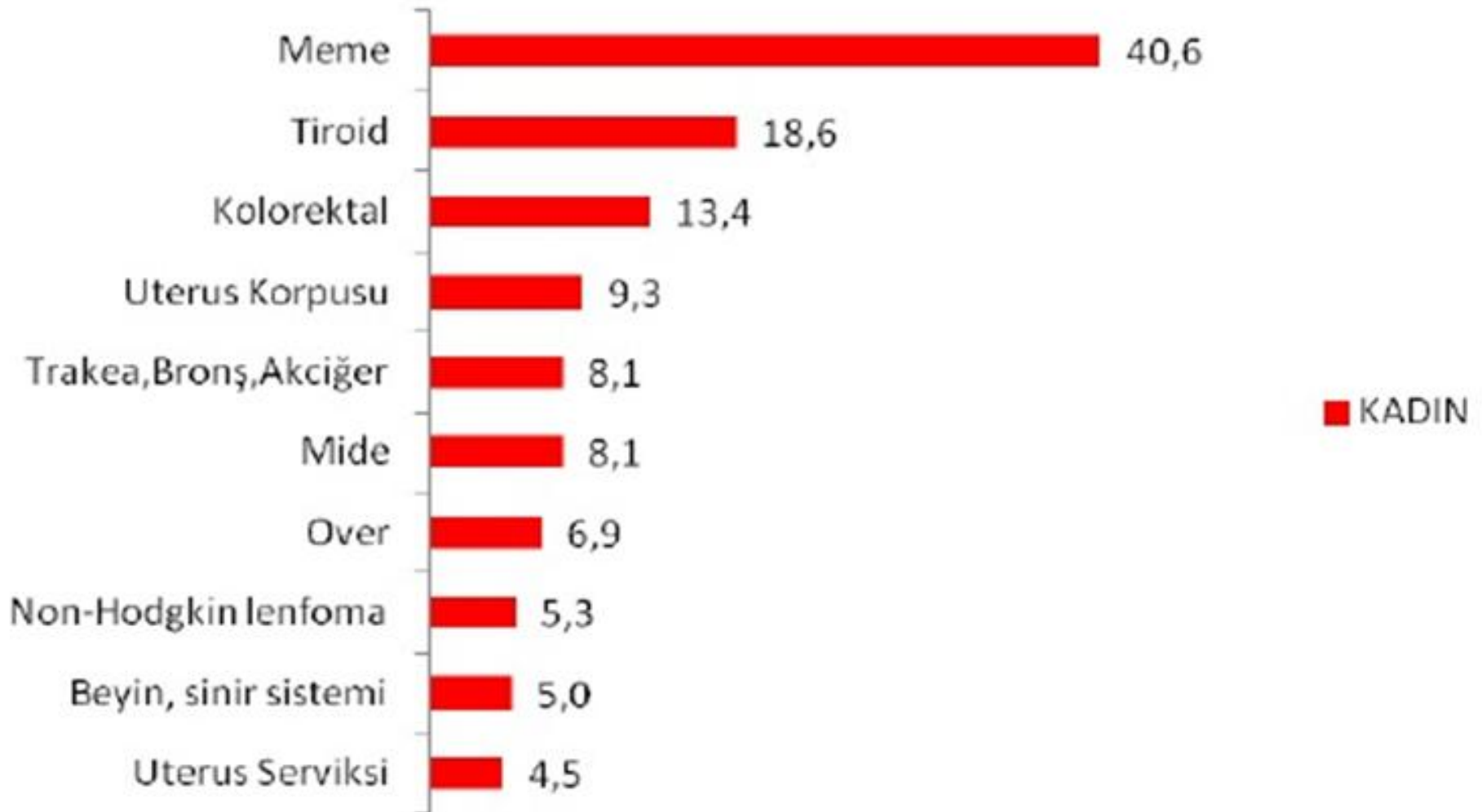
Data of Ministry of Health

GYN CANCERS within years

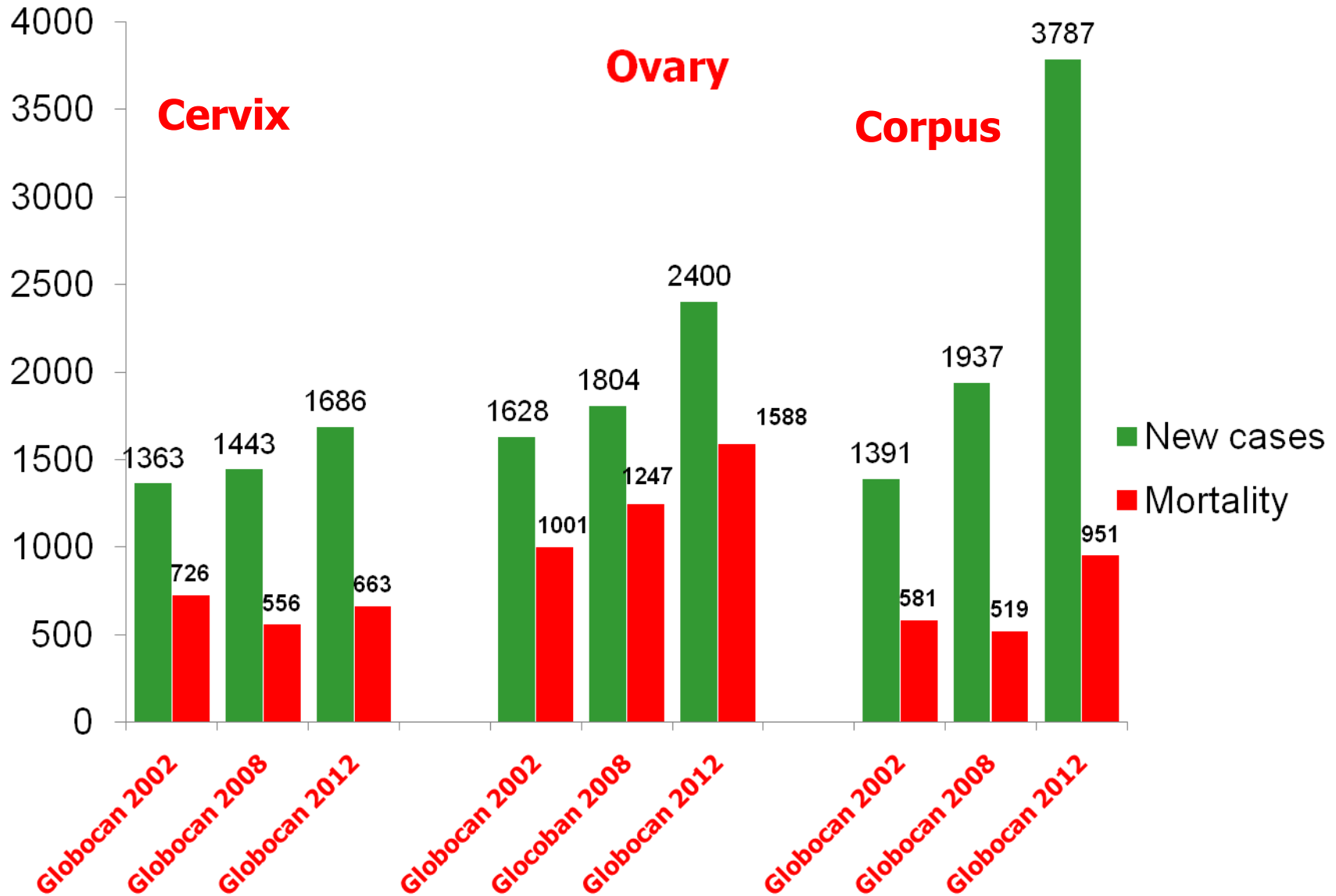


Data of Ministry of Health

The First 10 Women Cancers with in years (MoH)



New Cases vs Mortality in Turkey



Therapy depends on

- **Age , performance**
- **Accurate diagnosis**
- **Dept of invasion, LVSI**
- **Fertility desire**
- **Stage**
- **Lenf Node status**

Staging(2009)



Early stage

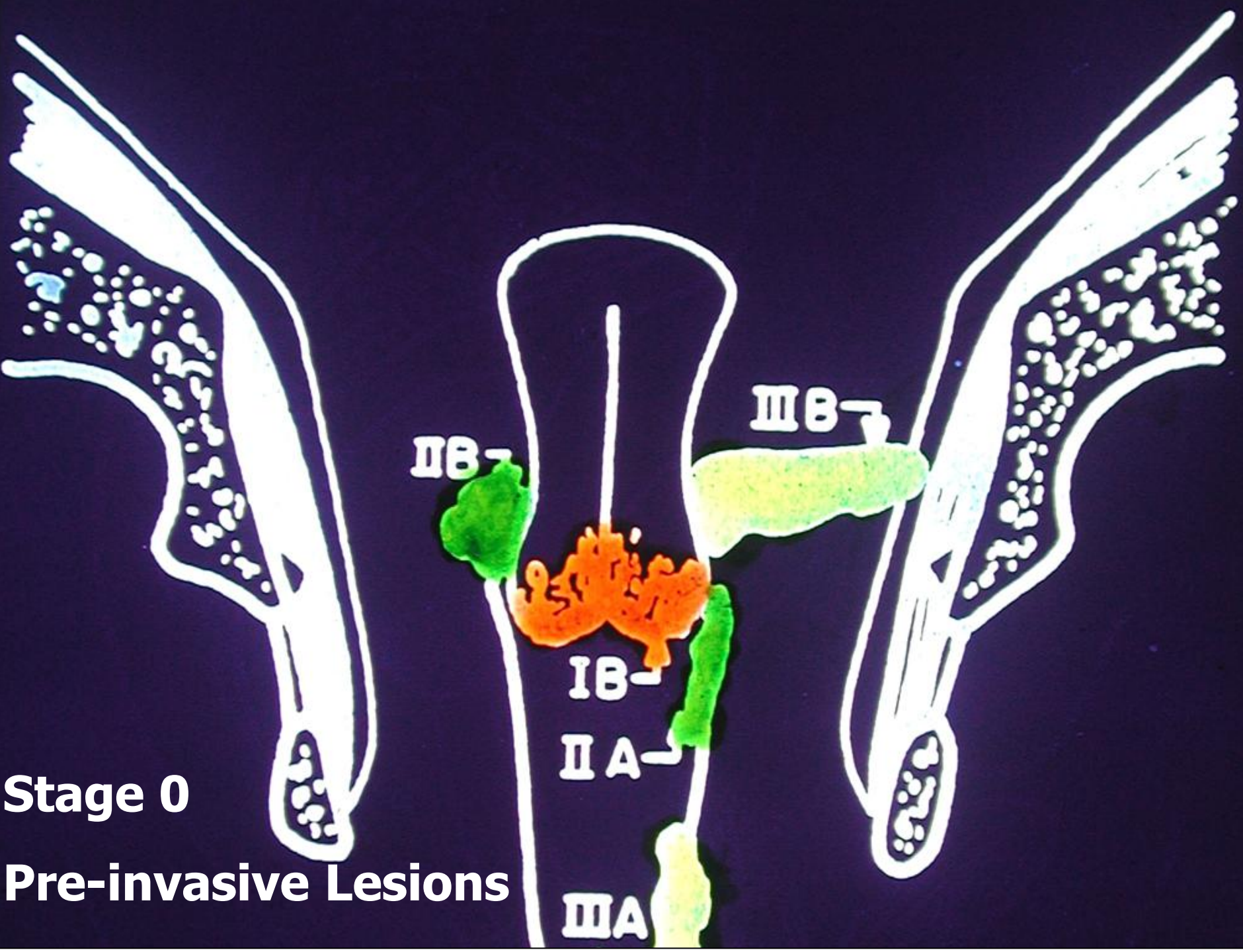


**Ia1, Ia2, Ib1
and IIa1**

Advanced stage



**Ib2, IIb2
And others**



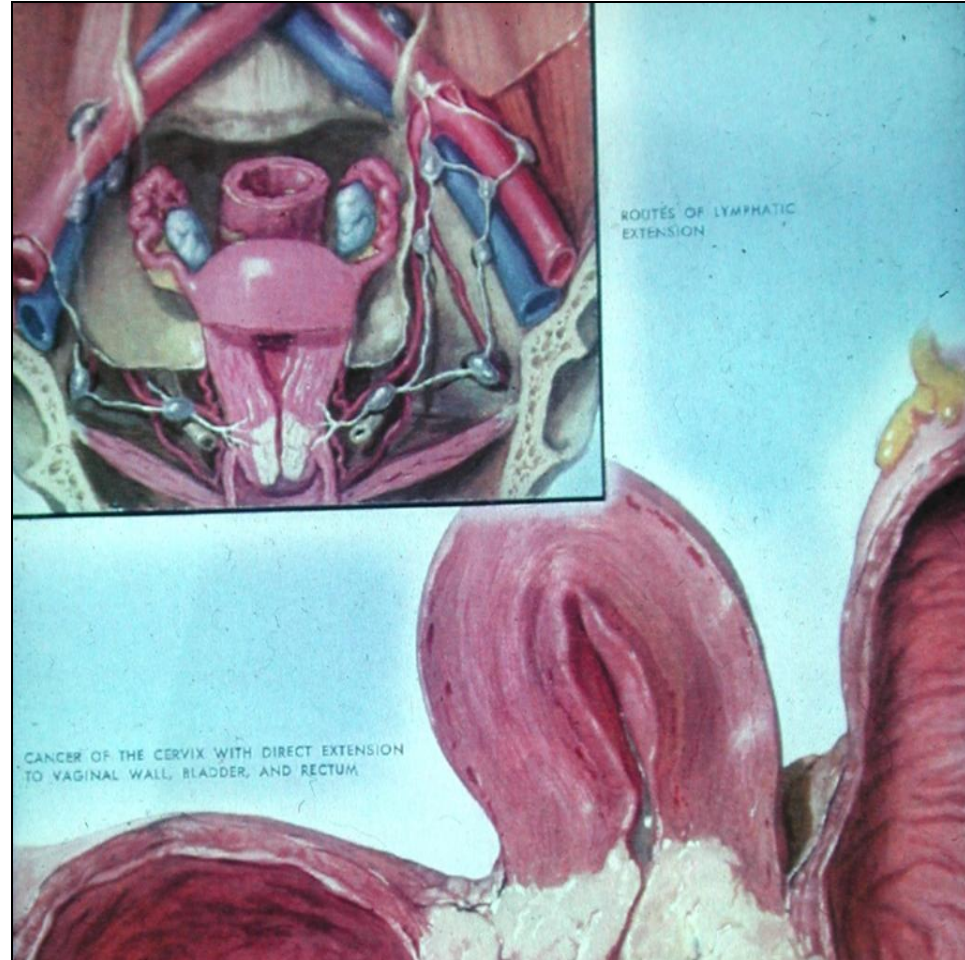
Stage 0

Pre-invasive Lesions

Treatment of Cervical Cancer

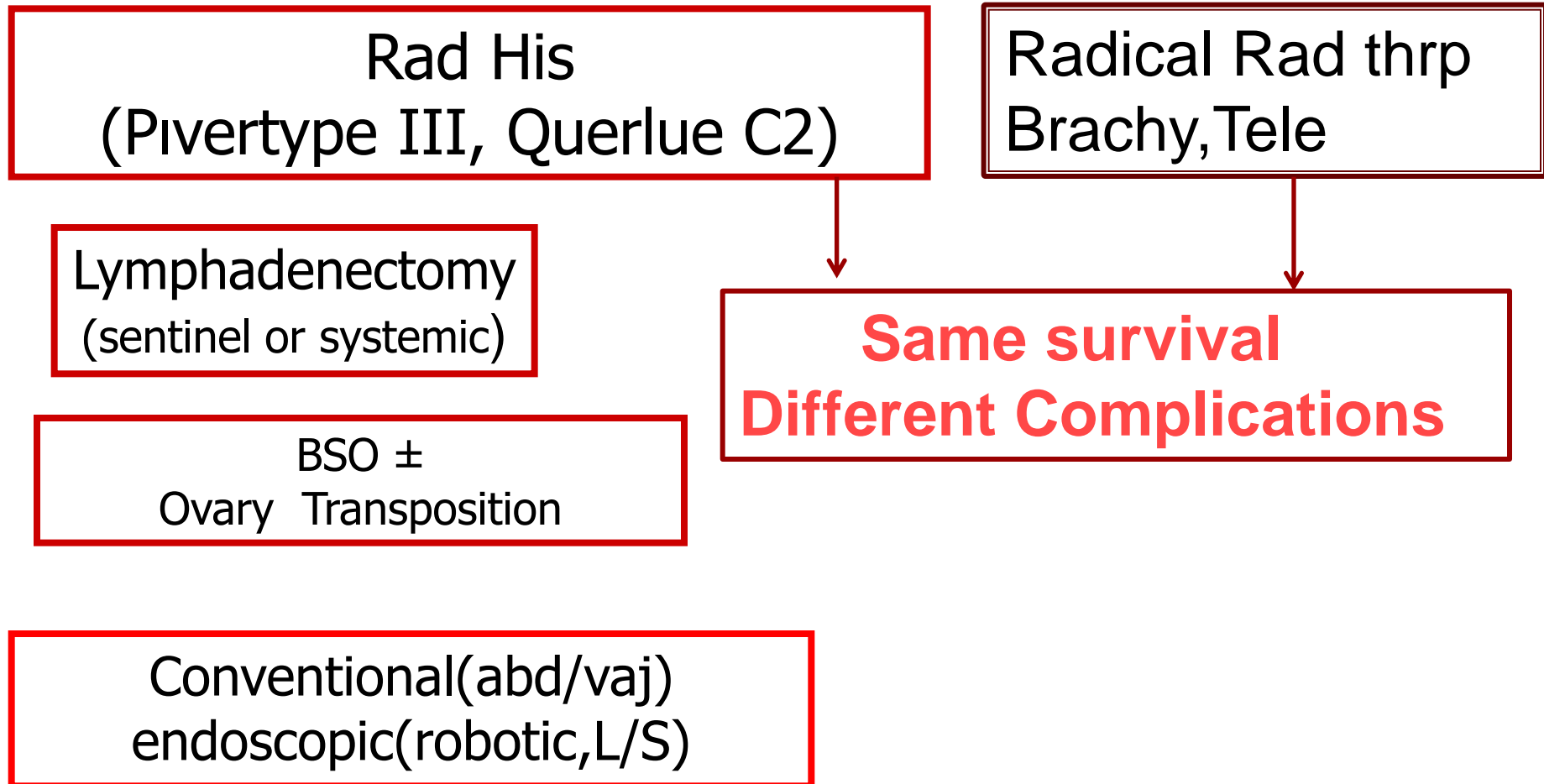
**Primary
Lesion**

**Potential
Metastatic
Fields**



Standard treatment of early stage cervical cancer

(Stage 1a-1b1-2a1)



Radical hysterectomy classifications

- **Piver et al (1974)**
- **Querleu-Morrow (2008)**
- **Cibula (2011)**

Type A	Type I (Extrafascial)
Type B (B1-B2)	Type II (Mod RH)
Type C (C1-C2)	Type III (RH)
Type D (D1-D2)	Type IV (RH)
	Type V (RH)

Radical hyst/trachelectomy

Complete primary tumor control

But

Parametrial resection related

Inf. Hipogastric plx

(Sympathetic and Parasympathetic)

- **More complication**
- **Vasculary**
- **Urologic**
- **GIS**
- **Sexual**
- **Loss of fertility**

New Approaches

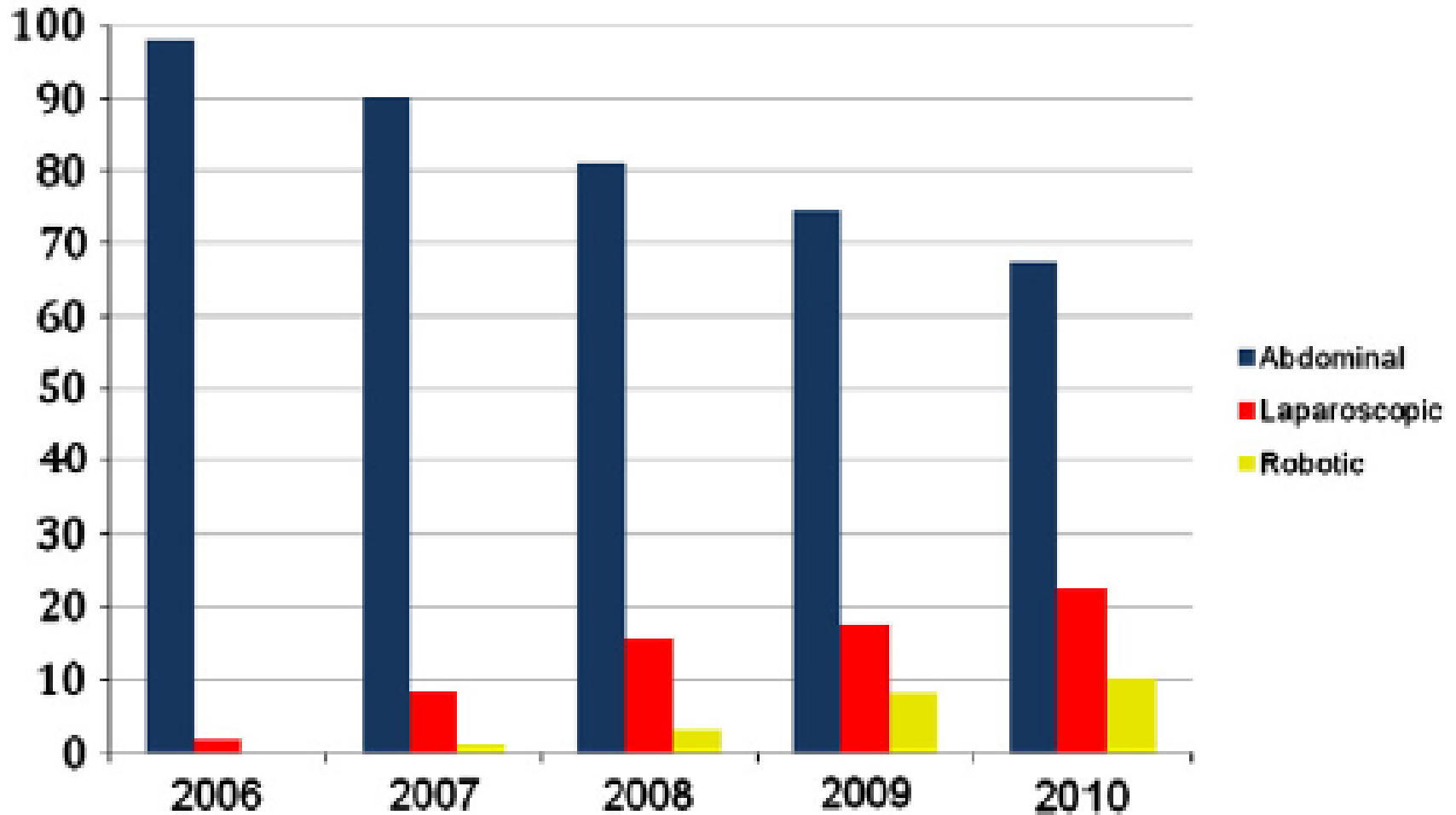
- Minimally invasive surgery
- Sentinel node not standardized
- Nerve sparing surgery – less postoperative ,vesical,rectal and sexual dysfunc
- Limitation of parametrial resection??
- Fertility sparing

Minimally invasive surgery

- **Laparoscopic**
- **Robotic**
- **LESS**

(Long term oncologic outcomes ?)

Types of surgeries between the years 2006-2010



	Robotic	L/S	Open
Recc. (%)	3.79	5.58	6.72
Follow up (month)	21	34	58
LN number	26	21	21
Post-op inf/ non-inf morbidity (%)	3,8/7,8	6.5/18,3	18.2/19,4
Hospital stay	3	5,5	8,4
Blood need (%)	2	5	25

**Sistemic review:
L/S RH (1339pts)
Open RH (1152pts)
Rob RH (327pts)**

Recurrance rates are the same

Table 7: Descriptive statistics for recurrence percentage

RH MLIID	No.	Minimum (%)	Median (%)	Maximum (%)	Mean (%)	Std. Deviation (%)
Open RH	9	0		17.85	6.72	5.43
Laparoscopic RH	17	0	2.8	17.39	5.58	6.85
Robotic RH	11	0	0	14.28	3.79	5.59
Total	37	0	3.125	17.85	5.33	6.11

Descriptive statistics for follow-up in months

Type of RH	No.	Minimum	Median	Maximum	Mean	Std. deviation
Open RH	13	15.2	41	300	58.0	74.9
Laparoscopic RH	18	7.2	30	78	34.1	18.7
Robotic RH	10	9.0	19	36	21.1	11.2
Total	41	7.2	29	300	38.5	45.5

Endoscopic vs.conventional

- **Less intraop Bleeding**
- **Less hospital stay**
- **Early discharge**
- **Quality of life**
- **Low morbidity**(Magnification and technique advantage of endoscopic instruments)
- **Same dissected lymph node number**
- **Same recurrence and survival**

Lymphadenectomy

- **Extend of tumor**
- **Prognosis**
- **Treatment (KT/RT/Komb)**
- **Adjuvant RT margins**
- **Direct therapeutic effect (Bulky LN)**
 - Early and Late term Morbidity**
 - Lymphedema**
 - Lymphocyst**
 - Infection**

Lymphadenectomy

- **Number of dissected nodes are similar (open-endoscopic)** **Salicru S et al , Invasive Gynecol , 2011**
- **Related to overall survival (SEER 5522 women)** **Suprasert et al , Int J Gynecol Obstet, 2012**
- **Dissection of bulky lymph nodes have therapeutic benefits .** **Shah et al , Cancer , 2011**

Sentinel Node

(lymphatic mapping)

- **Dual technique**
(Techn- 99,Isosulfan blue)
- **Sensitivity 98,2%**
- **Negative Predictive Value**
99,6%

Not Yet standardised

Low risk Group (1a2-1b1)

- **Tumor size**
 - $\leq 2\text{cm}$
- **Dept of invasion**
 - $\leq 10\text{ mm}$
 - $\leq 50\%$ stromal invasion
- **LVSI negative**
- **LN negative**

Parametrial involvement in Low risk Group

Author		n	Parametrium %
Kinney	95	83	0.0
Covens	02	536	0.6
Stegeman 07		103	0.0
Wright	08	270	0.4
Frumovitz 09		125	0.0

conservative management of early stage cervical cancer. is there a role for less radical surgery? [Schmeler KM](#), [Frumovitz M](#), [Ramirez PT](#). [Gynecol Oncol](#). 2011 Mar;120(3):321-5.

Retrospective review of early stage adeno carcinoma

Stg	N	R.surg	Para mth	Lymph node	Rec
1a1	337	194/337	0/190	2/209	3/306
1a2	118	85/118	0/72	0/90	1/117
1b1	105	91/105	1/91	1/99	6/105

Surgical approaches in low risk group

CONE

Simple Hyst.

TRACHELECTOMY

LND,SND

Conisation vs Simple hyst

Squamous cell			Adenocarcinoma	
	N	5 yS %	N	5 yS %
Stage 1A1				
Hyst	1143	95.6	433	96.9
Kon	467	95.1	121	98.8
Stage 1A2				
Hyst	1072	96.3	373	98.2
Kon	317	90.2	61	97.8

SEER DATA 1a1-1a2

Five year survival by histology ,stage and treatment

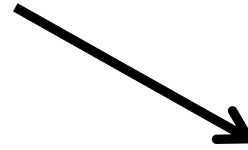
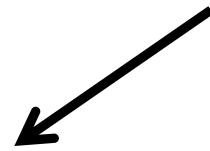
Spoozak et al AJOG2012(206-

Simple vs. Rad. hysterectomy

1B1-2A \leq 4 cm

n:125

Type 1
N:62



Type 3
N:63

- **No differences between**
 - **Pattern of recurrence**
 - **Survival**

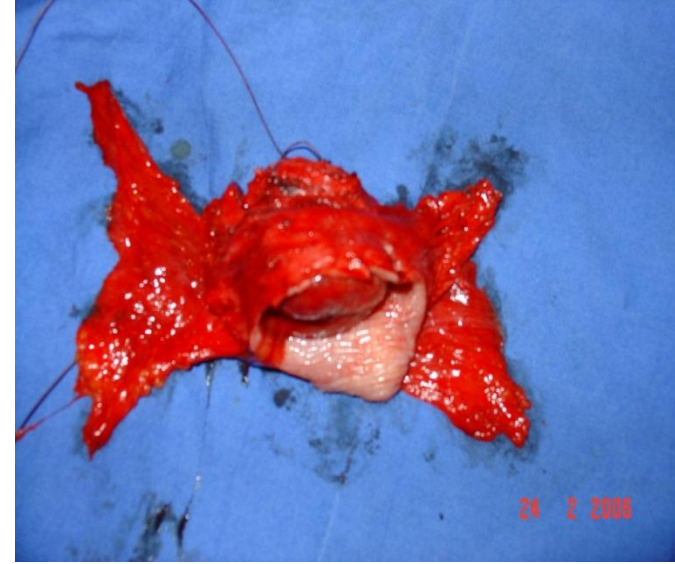
In patients stage 1B-2A \leq 3 cm

Prospective Studies

Author	Number	Sentin el LN	Less Radcical	Radic al	Poz LN	M.Foll. up	Rec	Death
Rob	40	yes	Cone+PLND:10 Simple trach+PLND:24	6	6	47	1	0
Pluta	60	yes	TH+PLND:57	3	5	47	0	0
Maneo	36	no	Cone+PLND:36	0	0	66	1	1
Fagotti	17	no	Cone+PLND:13	4	1	16	0	0
Palaia	14	no	Simple Trach+PLND:14	0	0	38	0	0
Raju	15	no	Simple Trach+PLND:15	0	0	96	0	0
Biliatis	62	no	Cone+PLND:35 TH+PLND:27	0	0	56	0	0
Plante	16	yes	Simple Trach+PLND:16	0	0	27	0	0
Total	261		247	13			2	1

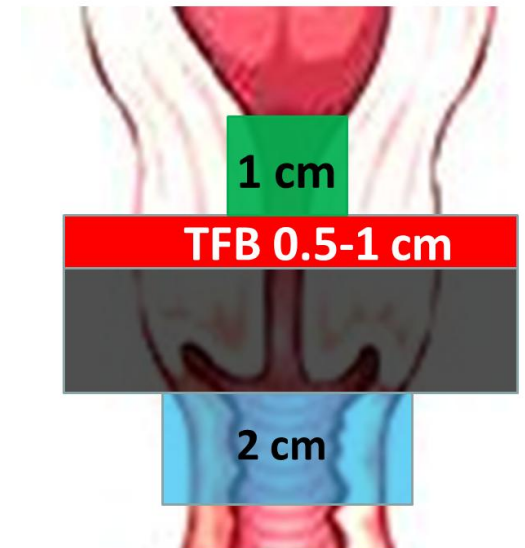


FSS in ECC



- 40,1% of CC are <45yo (SEER data)
- 20,78% are <39yo (Cochrane- US and Europe)

Radical Trachelectomy
Open
Vaginal
Endoscopic



Indications of Trachelectomy

- **Desire preserving fertility**
- **No fertility problems**
- **Ia1, Ia2**
- **Ib1**
(**<2cm, stromal invasion <50%,**)
- **Additional several variations (NACT..)**
- **Except neuroendocrine histology**

Oncologic Outcome Trachelectomy vs. RH

No difference between groups

- Recurrence rate**
- PFS, OS**
- Morbidity**

Meta analysis (587 participants)

Xu L, Acta Obstet Gynecol Scand, 2011

**Diameter more than >2cm has a higher
risk for oncologic outcome**

A study with 618 pts

Rob L, Lancett Oncol, 2011

Obstetric Outcomes

- **10-13% are infertile**
- **VRT is more fertility saving than ART**
- **Misscarriage rate**
 - **1st trimester 20%**
 - **2nd trimester 3%**
- **73% of pregnancies reached 3rd trimester**
- **Of which 75% delivered at term**

IA

(Micro-invasive cancer)

IA1

Depth 0-3mm

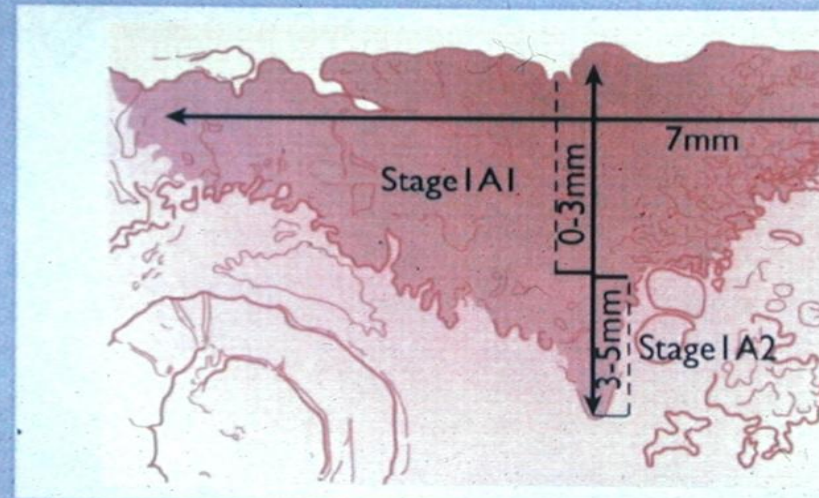
Horiz <7mm

IA2

Depth 3-5 mm

Horiz <7mm

MEASUREMENT



International Federation of Gynecology and Obstetrics and IA2 of cervical cancer. Diagram showing the micro

LVSI , does not alter FIGO stage !



IA1 LVSI (-)

CONE



- **Tumor free border and negative ECC after cone**
- **Positive margine or positive ECC**



RE-CONE



IA

(Micro-invasive cancer)

IAI LVSI (-)

IAI, LVSI (+)
IA2

Conization or
Hysterectomy

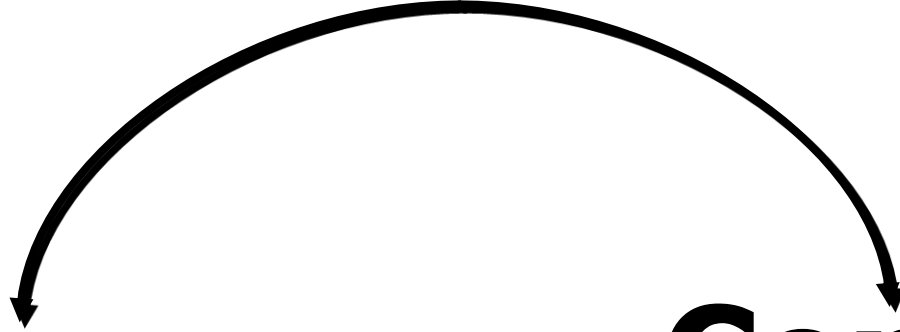
Type II
Hysterectomy
+
Pelvic LND

BSO optional*

ENDOSCOPE/VAGINAL/ ABDOMINALE

0.5 % ovary met in SCC. (GOG)

AIS-IA1 Adeno Ca



**Simple
Hysterec-
tomy**

**Cone *
ECC Cone
Apex**

***Fertility Desire**

Stage IB1 – IIA (Sq and AdenoCa)

Type III(C2) Hysterectomy

PPALND

BSO*

**1B1 adeno ca(0-7 %) sq (0.05) ovary
met. (GOG)**

These studies about conservative surgery are retrospective,

There are new ongoing prospective randomised studies;

MD Anderson

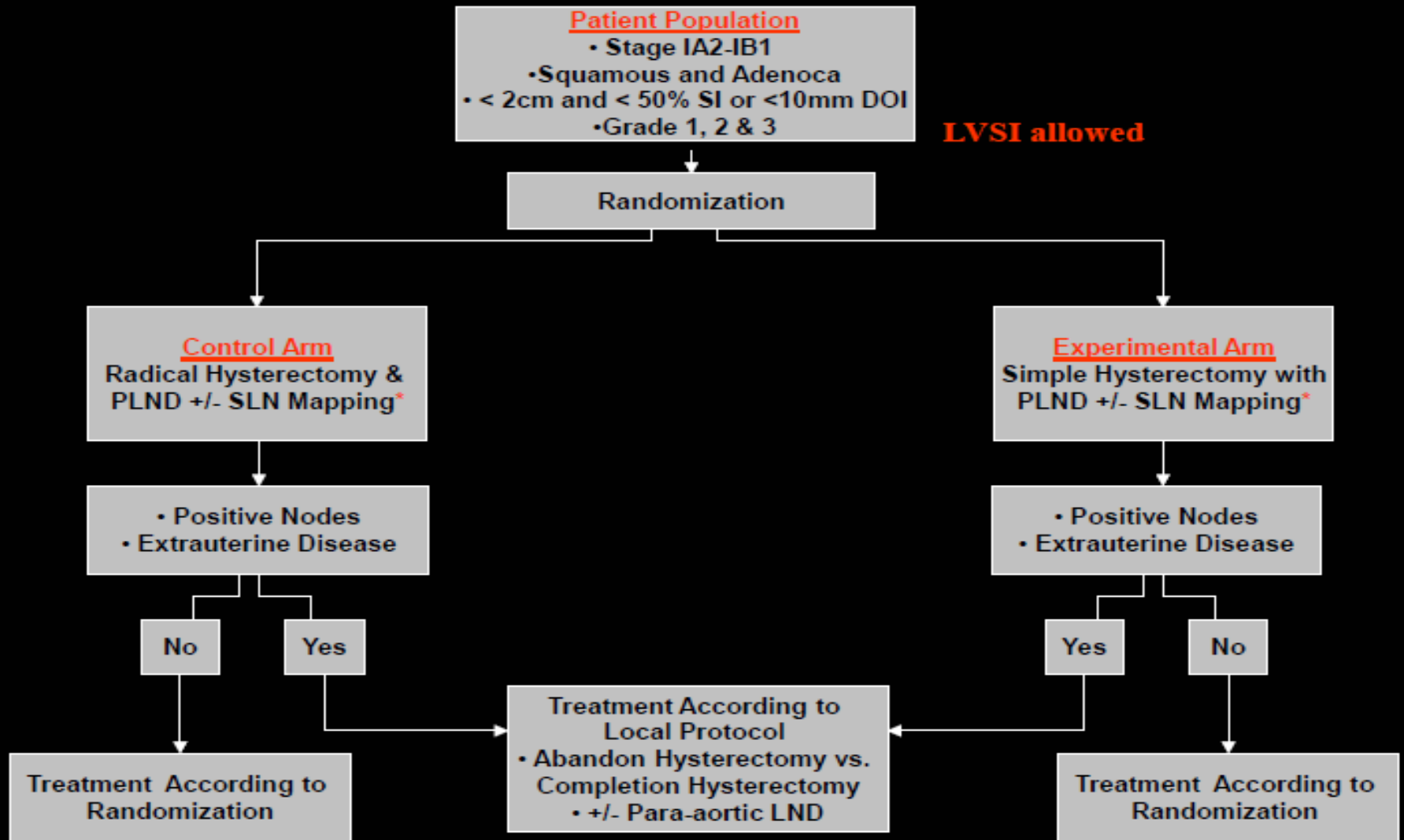
Gyn Cancer Intergroup Study(SHAPE)

GOG 278 study

(there are some diff in including criterias)

**Main Criterias ; 1a1 + LVSI,
1a2,1b1(size
<2cm,depth<1cm,stromal inv<%50)**

Shape Trial



LVSI allowed

RH Related Complications

	%
Blood loss and transfusion	23
Voiding dysfunction	40-42
Bowel dysfunction	9-18
Fecal or flatal incontinance	33
Risk of fistula formation	1-6
Lymphedema	3-19
Sexual dysfunction	19-36
Loss of fertility	

Adjuvant RCT in ECC

- **Low Risk**
(GOG score <40mm)
- **Intermediate**
(GOG score 40-120mm)
(LVSI+, DSI, diameter >4cm)
- **High Risk**
(GOG score >120)
(LN +, surgical marge<0,5mm,
parametrial involvement)

Outcomes
(Bilek and GOG 92-2006)

Two studies Stage IB

N: 397

RH + PLND ± RT

No difference in OAS

Radical Surgery With Individualized Postoperative Radiation for Stage IB Cervical Cancer

Oncologic Outcomes and Severe Complications

Samith Sandadi, MD, MSc, Edward J. Tanner, MD,* Fady Khoury-Collado, MD,*
Alessandra Kostolias, MD,* Vicky Makker, MD,†§ Dennis S. Chi, MD,*§ Yukio Sonoda, MD,*§
Kaled M. Alektiar, MD,‡ Richard R. Barakat, MD,*§ and Nadeem R. Abu-Rustum, MD*§*

n: 222 (IB1/IB2) RH(158) , RTr(64)

69 RT other NT

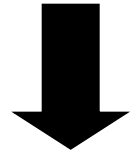
Toxicity 12% vs 32%

5y PFS 93% vs 90%

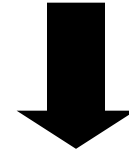
5y OAS 96% vs 91%

n: 2,268 patients
RH + PLND ± RT or CT

Median
 follow up 41
 months



1010 CT



1258 RT

OS: 86.5%
 DFS:84.5%

OS: 82.8%
 DFS:81.4%

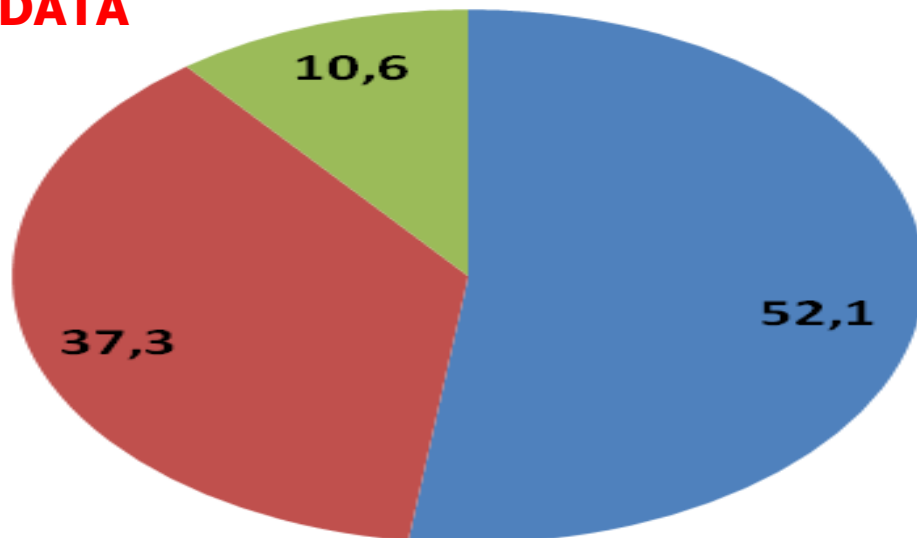
Recurrence	14,3%	22,4%
Local Rc	9,7%	14%
Distance Rc	7,7%	11%

stage IB the 5-year OS and DFS rates were significantly higher in the CT group

Stage vs Survival

	At initial diagnosis	5 year Survival
Localized Stage	49 %	91,2 %
Regional LN or beyond primary	35 %	57,8 %
Distant Met.	11 %	17,0%
Unknown (Unstaged)	5 %	58,1 %

TURKEY DATA



Survival 42,5mts

- Lokalize
- Bölgesel
- Uzak yayılım

Cervical Cancer

Primary Prevention

- **Stop smoking**
- **Barrier Contraceptives**
- **Monogamy**
- **Diatery (Folic ,VitB,Caroten etc)**
- **Vaccination**

Secondary Prevention

Screening

Conclusion-I

- **Conservative surgery in selected patients**
- **Fertility sparing surgery**
- **Nerve sparing surgery decreases the complications while increasing the quality of life**

Conclusion-II

- **Sentinel lymph node dissection is getting popular but is not standardized yet**
- **Parametrial resection should be limited in low risk early stage CC patients**

TEŞEKKÜRLER

