





# **Accelerated Hyperfractionated Radiotherapy for Uterine Cervix Cancer (Cervix-II)**





**FNCA 2003 Workshop on Radiation Oncology  
Suzhou(Soochow)/Shanghai, China, 2003**

# **Characteristics of Patients**

# Registered Cases n=103

	<b>CHN</b> 	<b>IDN</b> 	<b>JPN</b> 	<b>KOR</b> 	
<b>Cases</b>	<b>7</b>	<b>7</b>	<b>18</b>	<b>33</b>	
<b>Followed (%)</b>	<b>7 (100%)</b>	<b>5 (71%)</b>	<b>18 (100%)</b>	<b>33 (100%)</b>	

	<b>PHL</b> 	<b>THA</b> 	<b>VNM</b> 	<b>MYS</b> 	<b>Total</b>
<b>Cases</b>	<b>16</b>	<b>17</b>	<b>5</b>	<b>0</b>	<b>103</b>
<b>Followed (%)</b>	<b>8 (50%)</b>	<b>11 (65%)</b>	<b>5 (100%)</b>	<b>0</b>	<b>87 (84.5%)</b>

# Characteristics of Registered Patients (n=103)

	HDR (n=48)	LDR/MDR (n=55)
Age (range)	54.1 (31-80)	53.0 (35-71)
FIGO Stage IIB	25	31
IIIB	23	24
Tumor Size <4cm	3	7
4-6cm	28	33
≥6cm	17	15
Followed	38	49
Not Followed	10	6

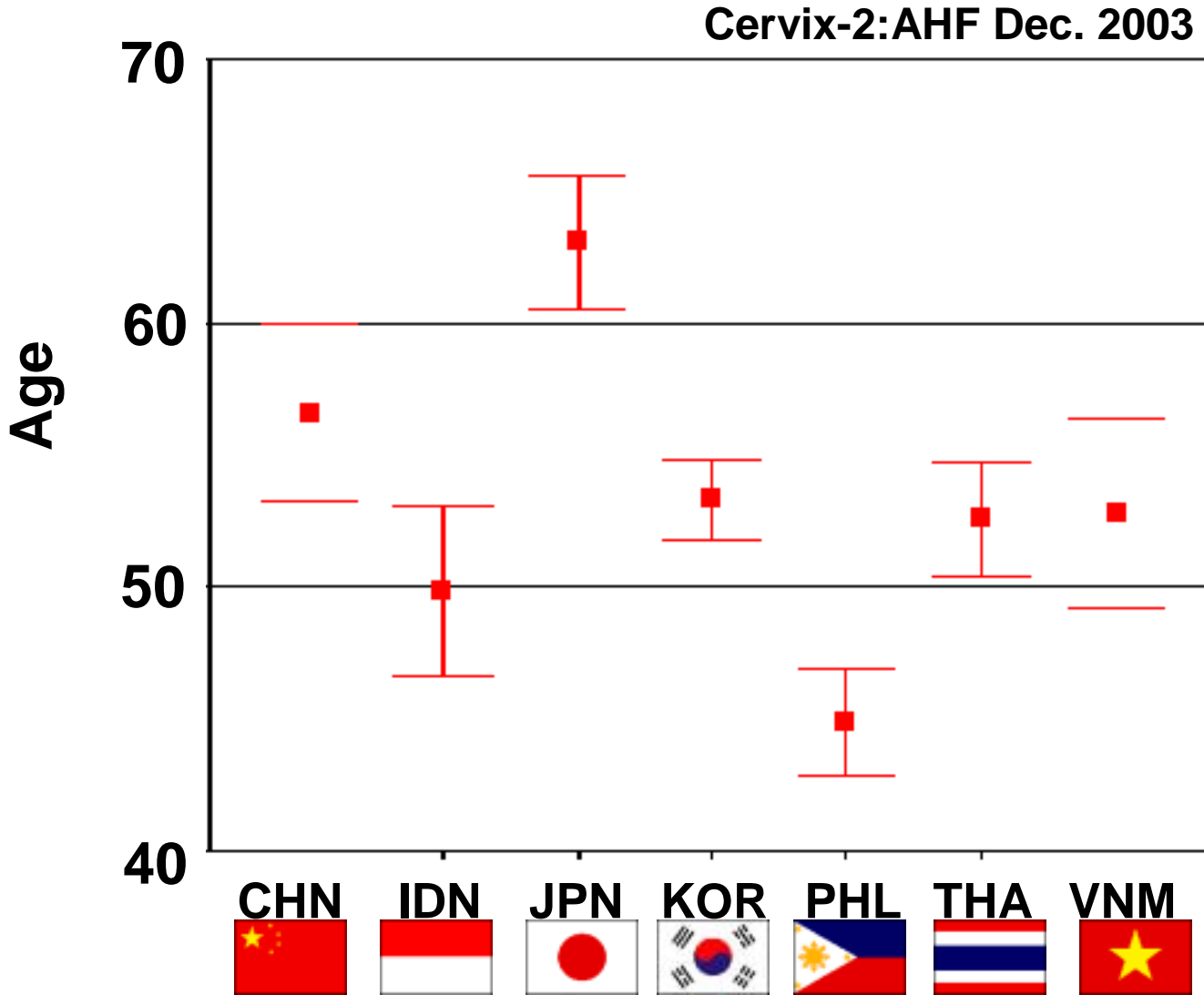
# Tumor Size and FIGO Stage

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	Small <4 cm	Medium 4-6 cm	Large ≥ 6cm
FIGO IIB	3	39	14
FIGO IIIB	7	22	18

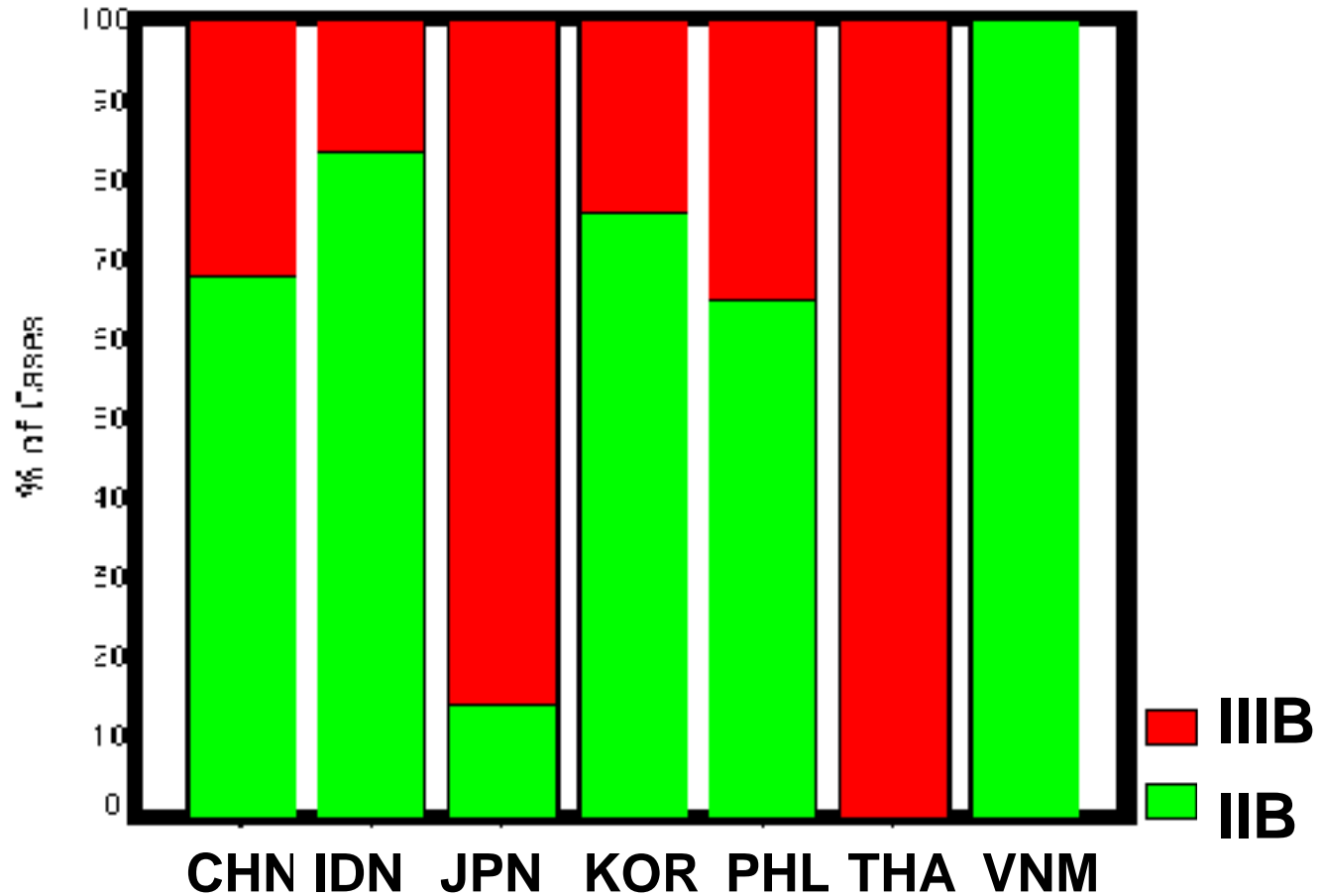
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# Patient Age



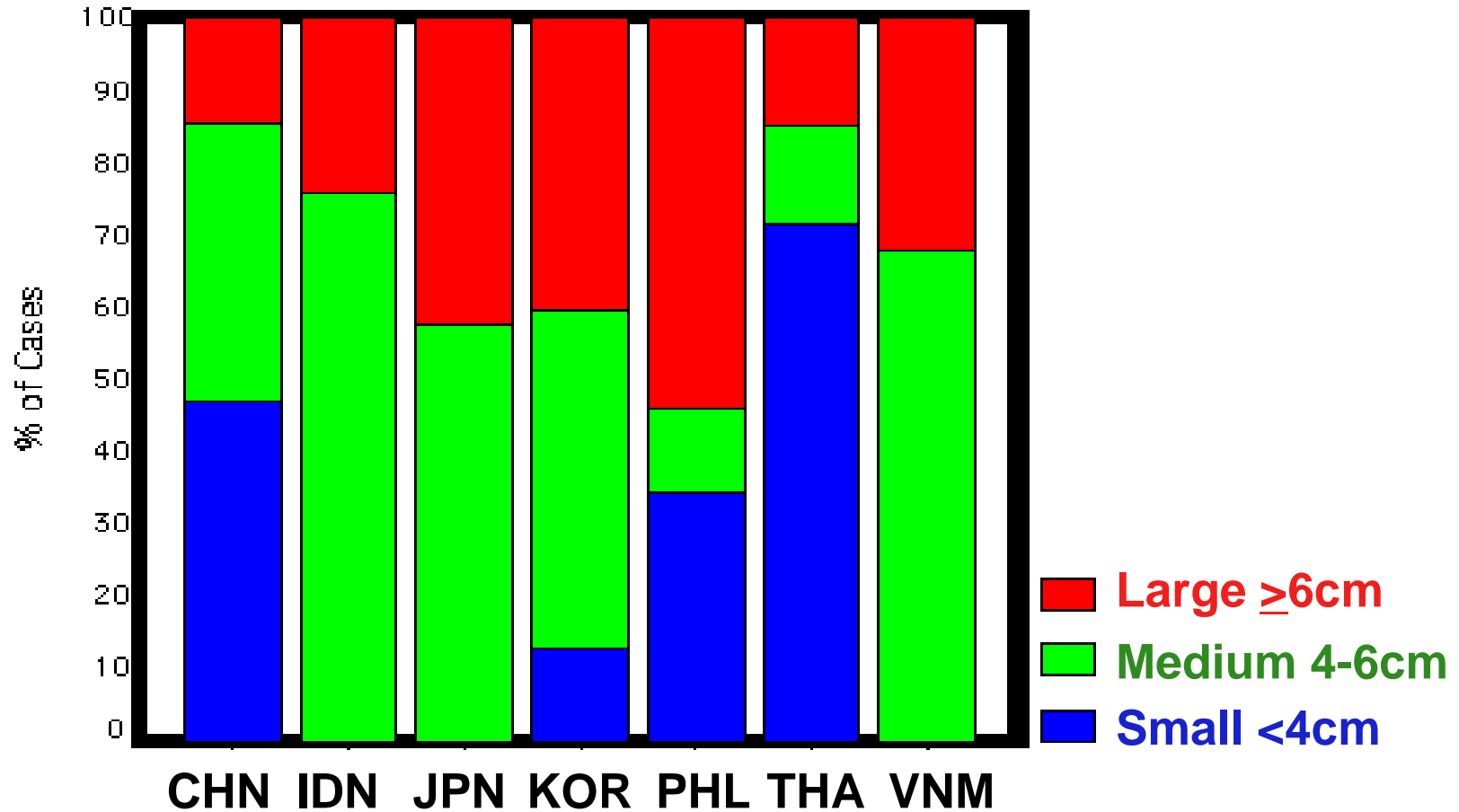
# Distribution of FIGO Stage by Countries

Cervix-2:AHF Dec. 2003



# Distribution of Tumor Size by Countries

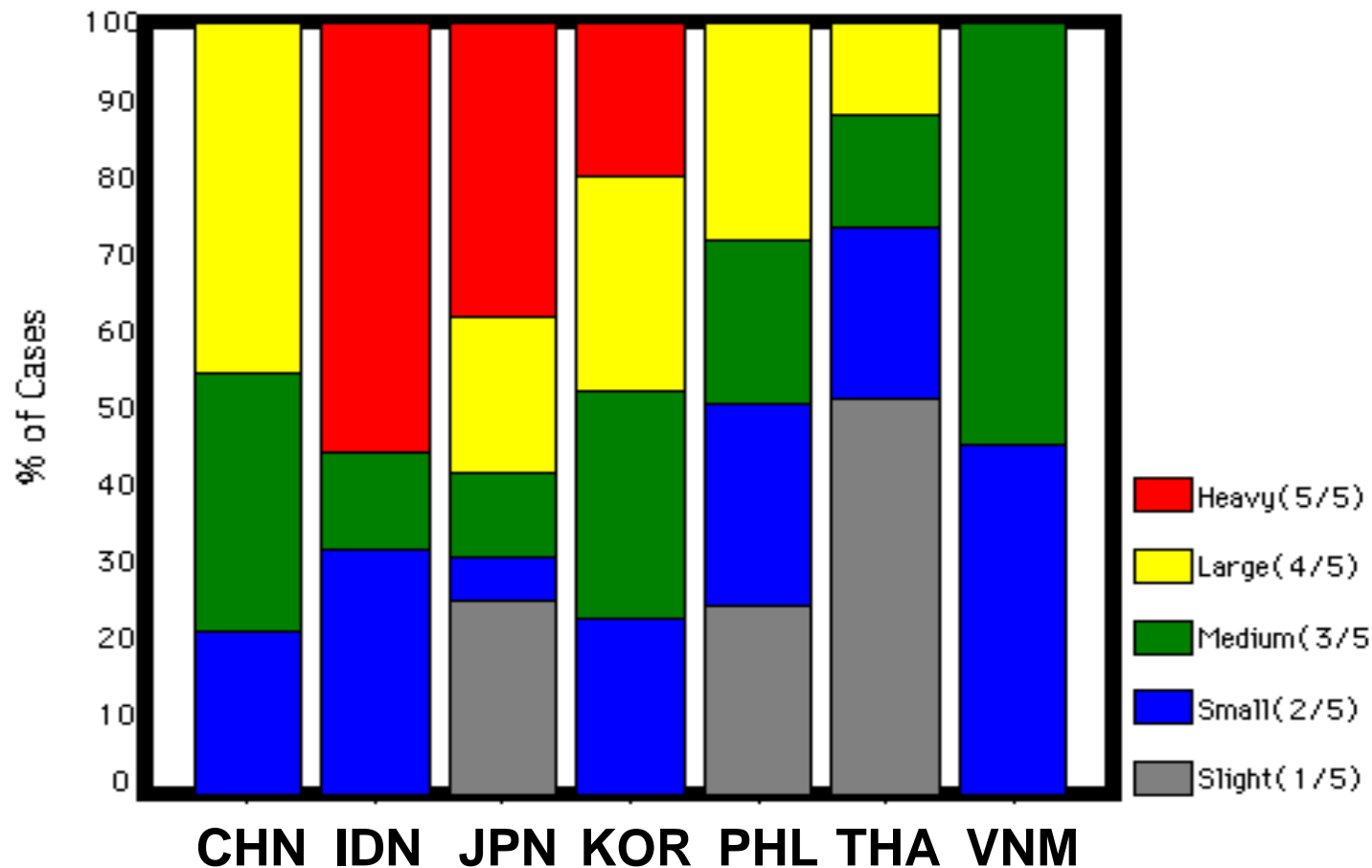
Cervix-2:AHF Dec. 2003





# Distribution of Parametrium Volume by Countries

Cervix-2:AHF Dec. 2003

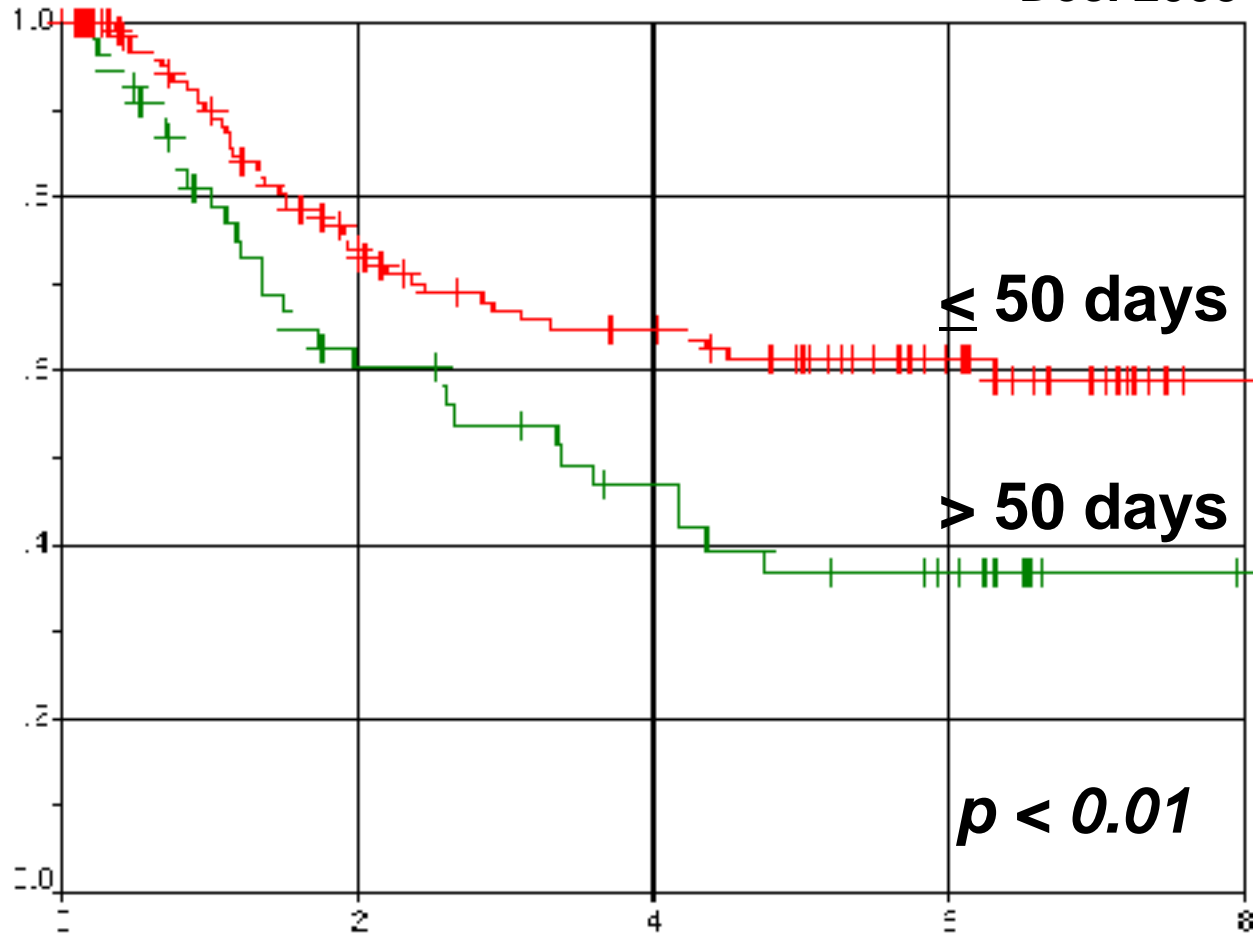


# **Characteristics of Radiotherapy**

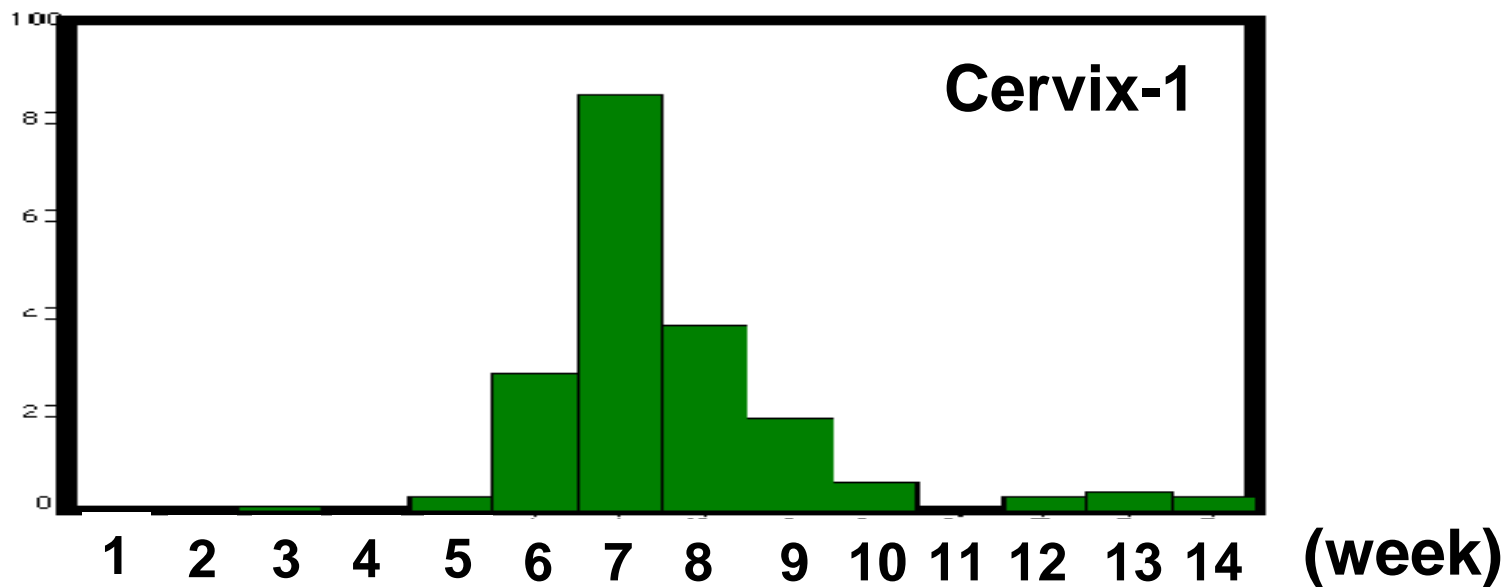
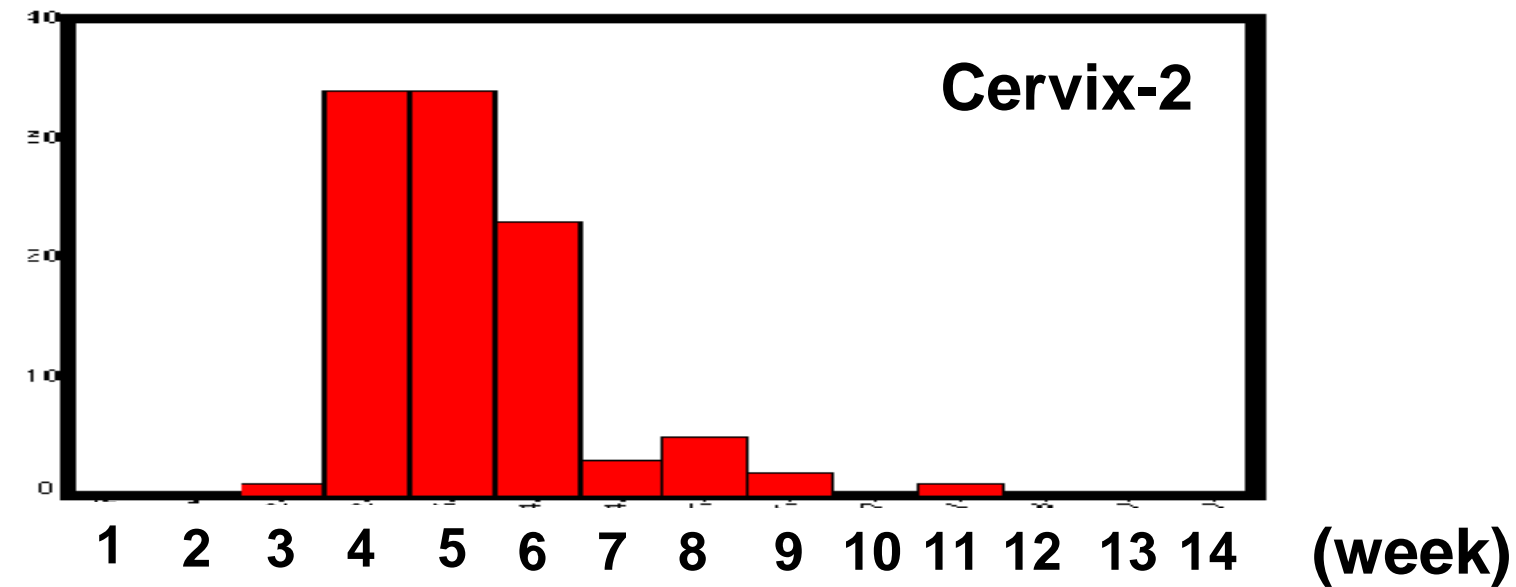
# Overall Survival by OTT

Cervix-1

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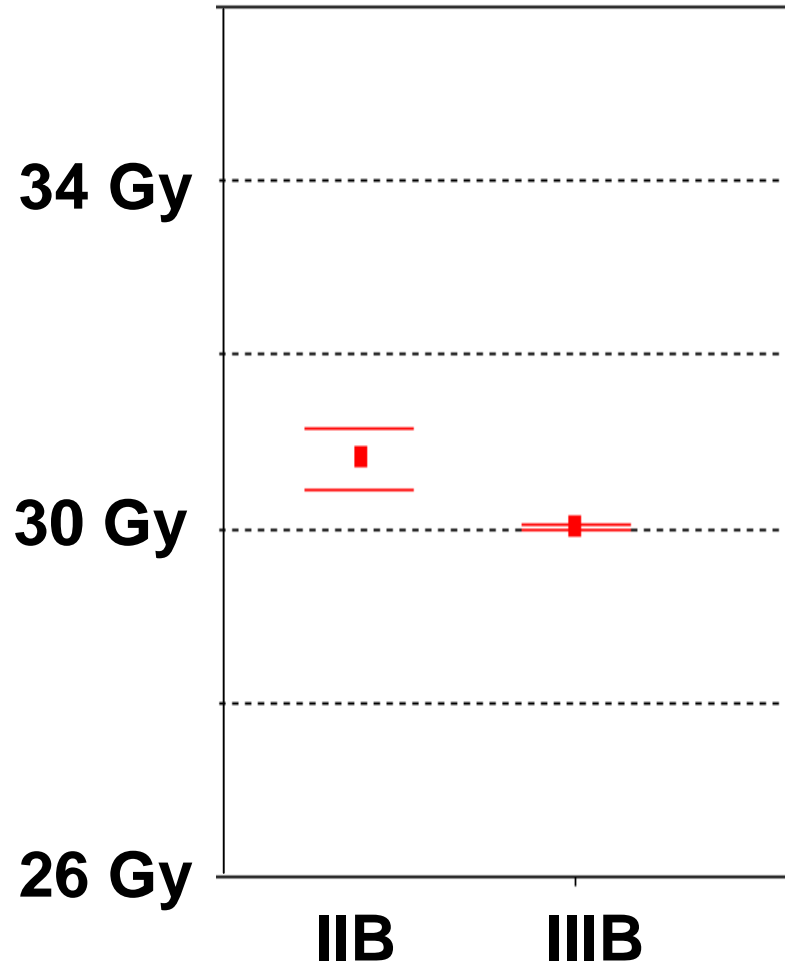


# Histograms of Overall Treatment Time



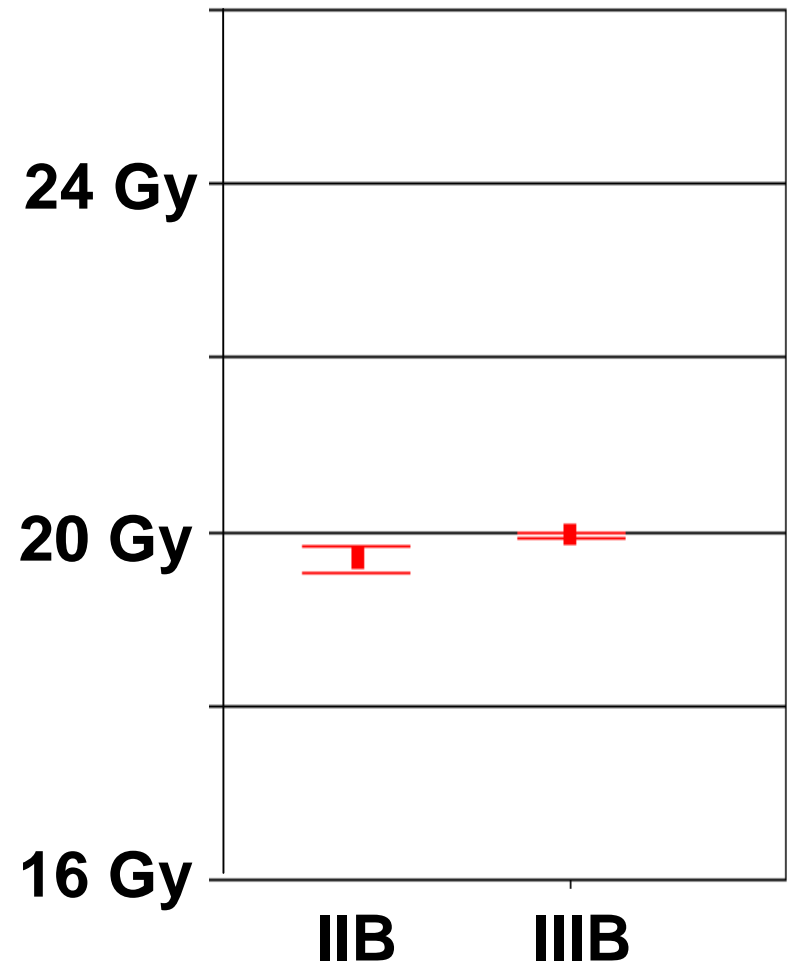
# Whole Pelvic Dose

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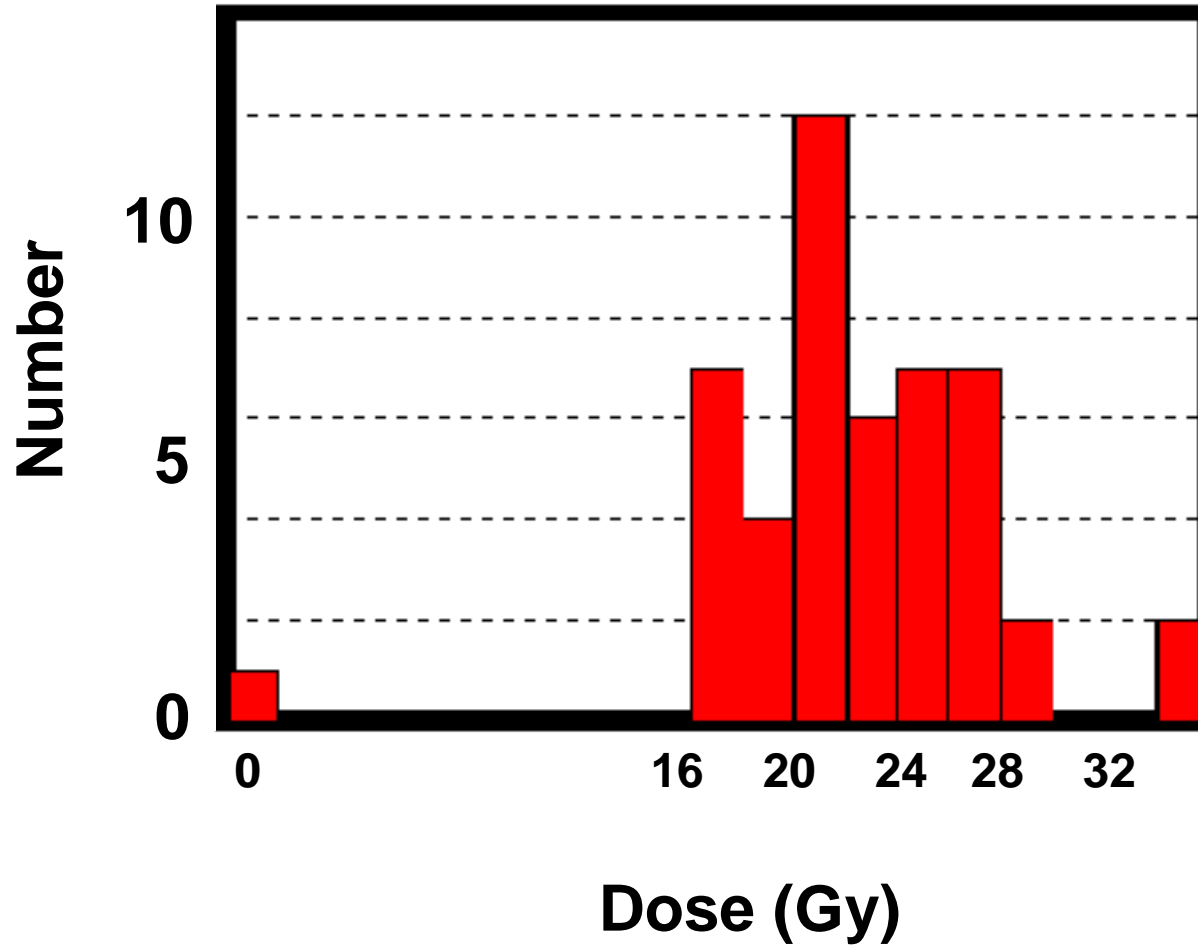
# Center Shielding Dose

Cervix-2:AHF Dec. 2003



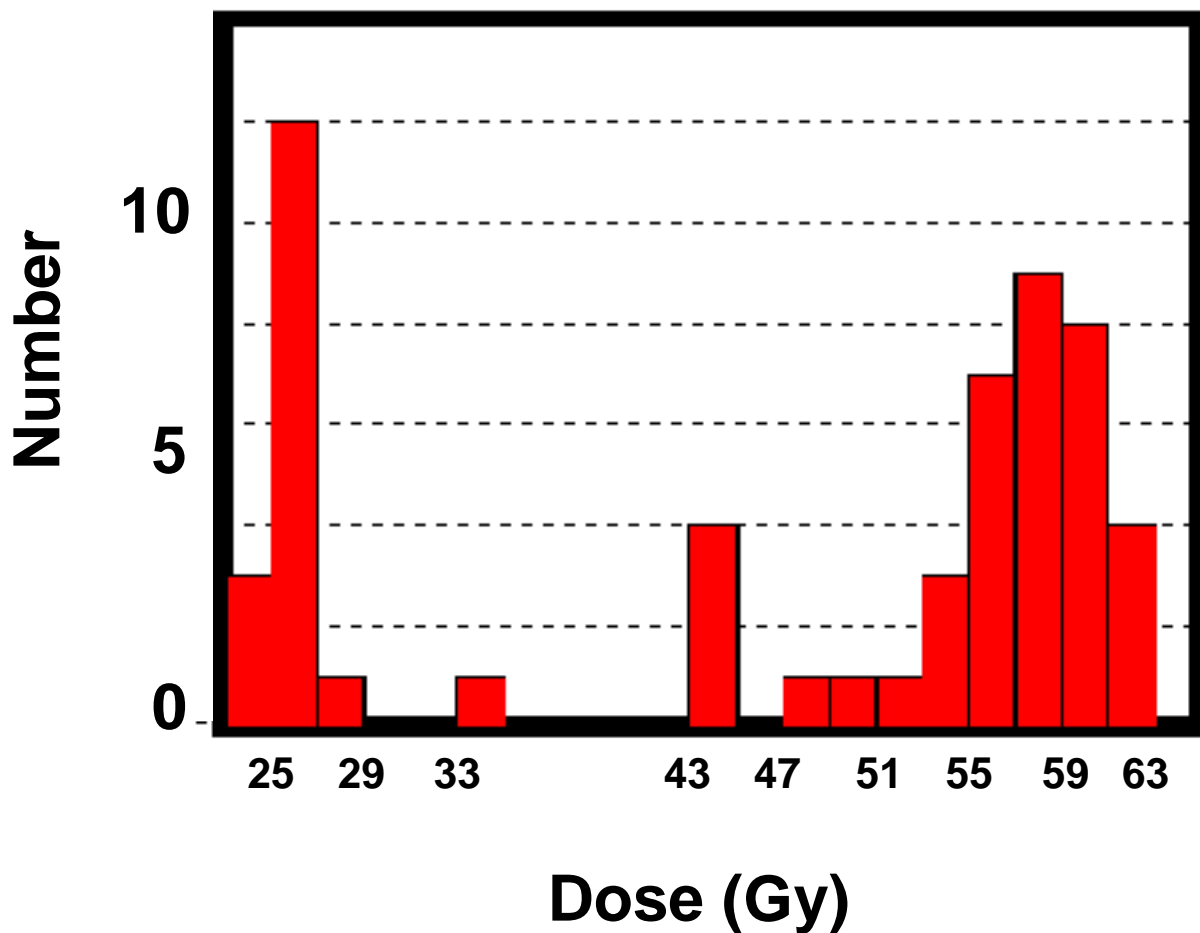
# Histogram of Point-A Dose for HDR-ICBT

Cervix-2:AHF Dec. 2003



# Histogram of Point-A Dose for LDR/MDR-ICBT

Cervix-2:AHF Dec. 2003



# **Morbidity of Cervix-II**



# Acute Morbidity for 103 Patients

Site	unknown	RTOG Grade					
		0	1	2	3	4	
Mucosa	3	65	22	11	1	1	
Rectum	2	57	28	14	2	0	2%
Bladder	1	74	22	6	0	0	2%
Intestine	2	68	17	15	1	0	0% 1%

# Late Morbidity for 103 Patients

Site	unknown	RTOG Grade					
		0	1	2	3	4	
Mucosa	7	43	40	9	3	1	↔
Rectum	7	58	31	7	0	0	↔ 4%
Bladder	7	80	12	2	1	1	↔ 0%
Intestine	7	82	13	0	0	1	↔ 2% 1%

# Results of Cervix-II

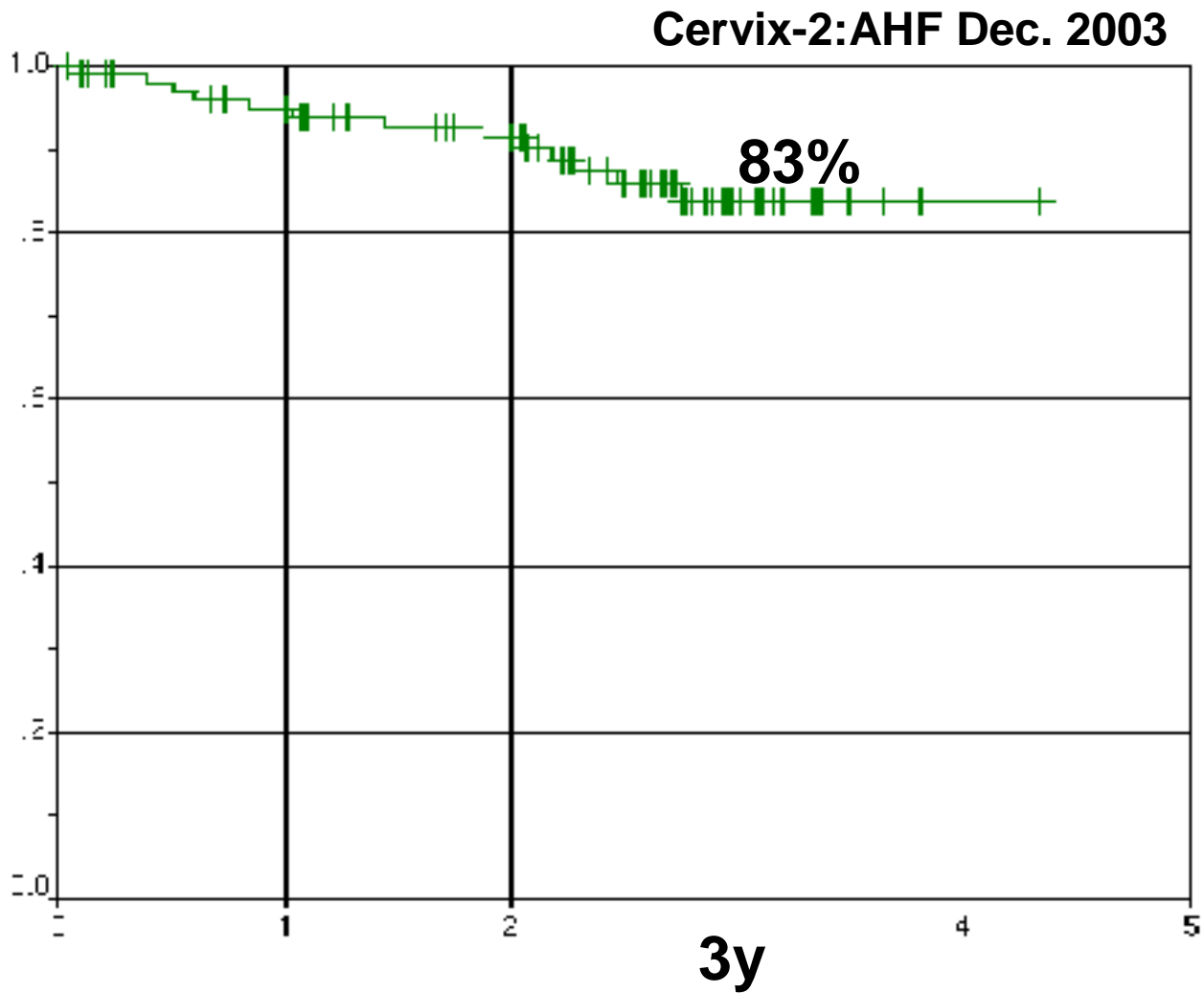
**Overall Survival**

**{**  
for all 103 patients  
by FIGO stage  
by tumor size  
by parametrium involvement

**Local Control**

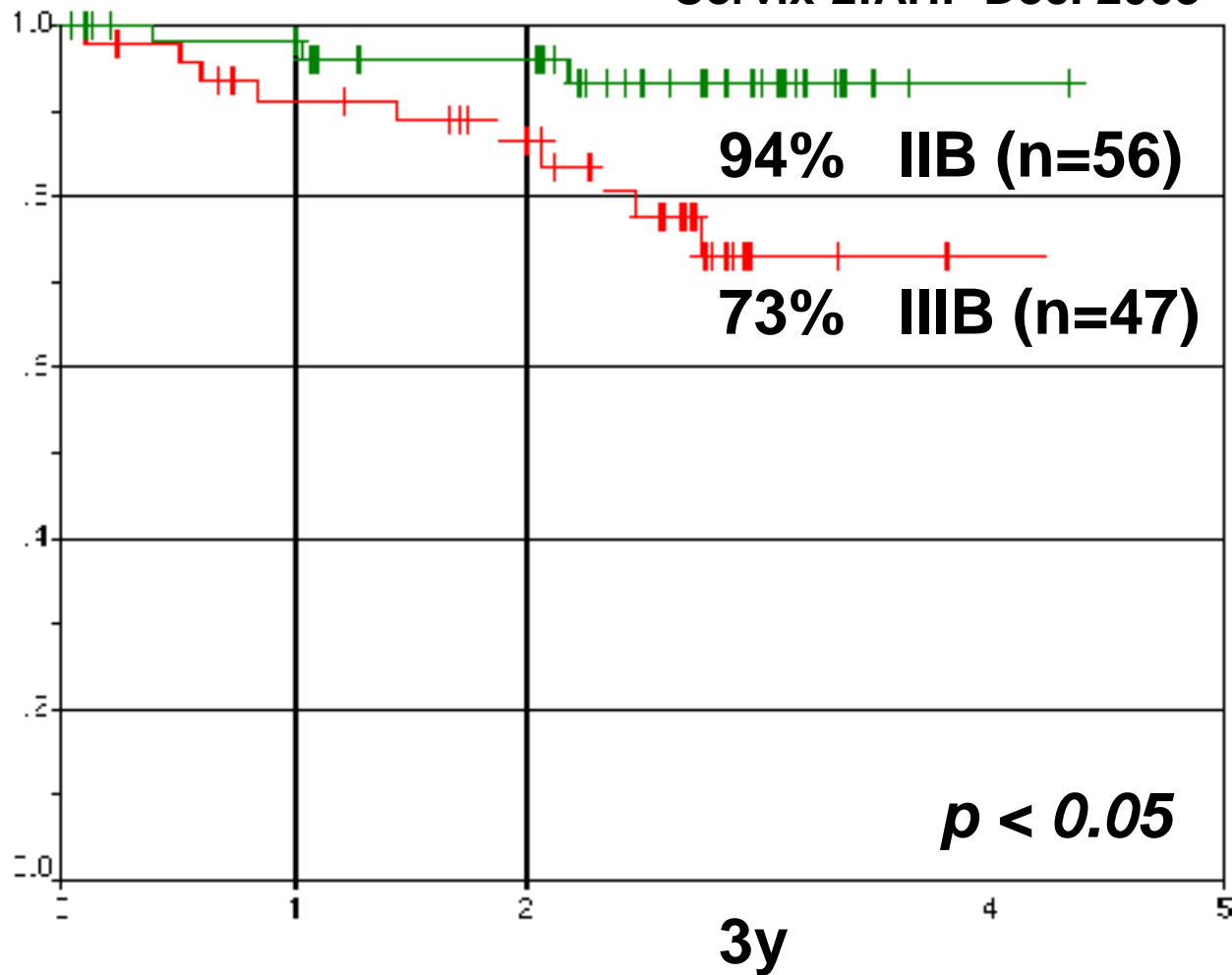
**{**  
for all 103 patients  
by FIGO stage  
by tumor size  
by parametrium involvement

# Overall Survival for All 103 Patients

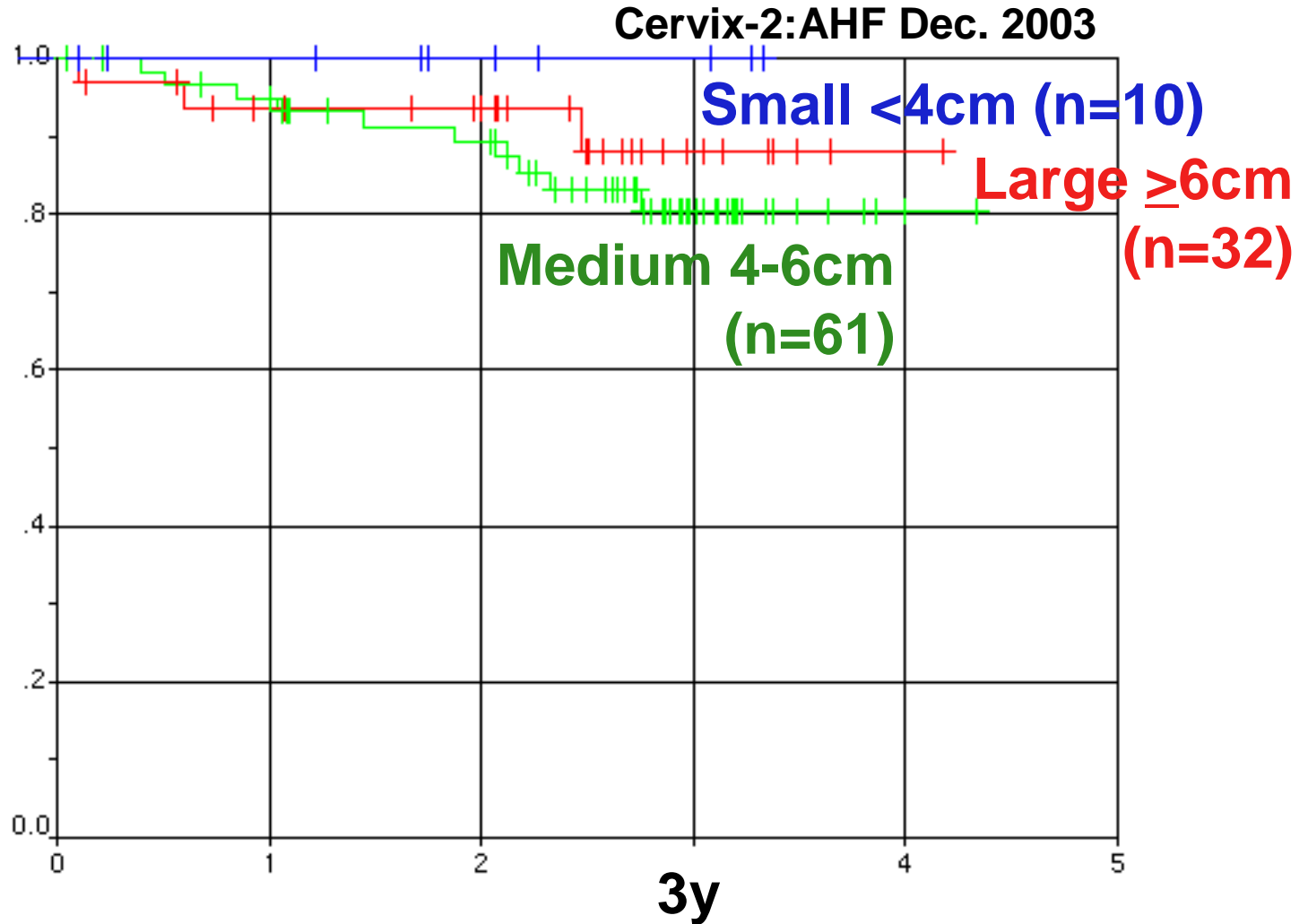


# Overall Survival by FIGO Stage

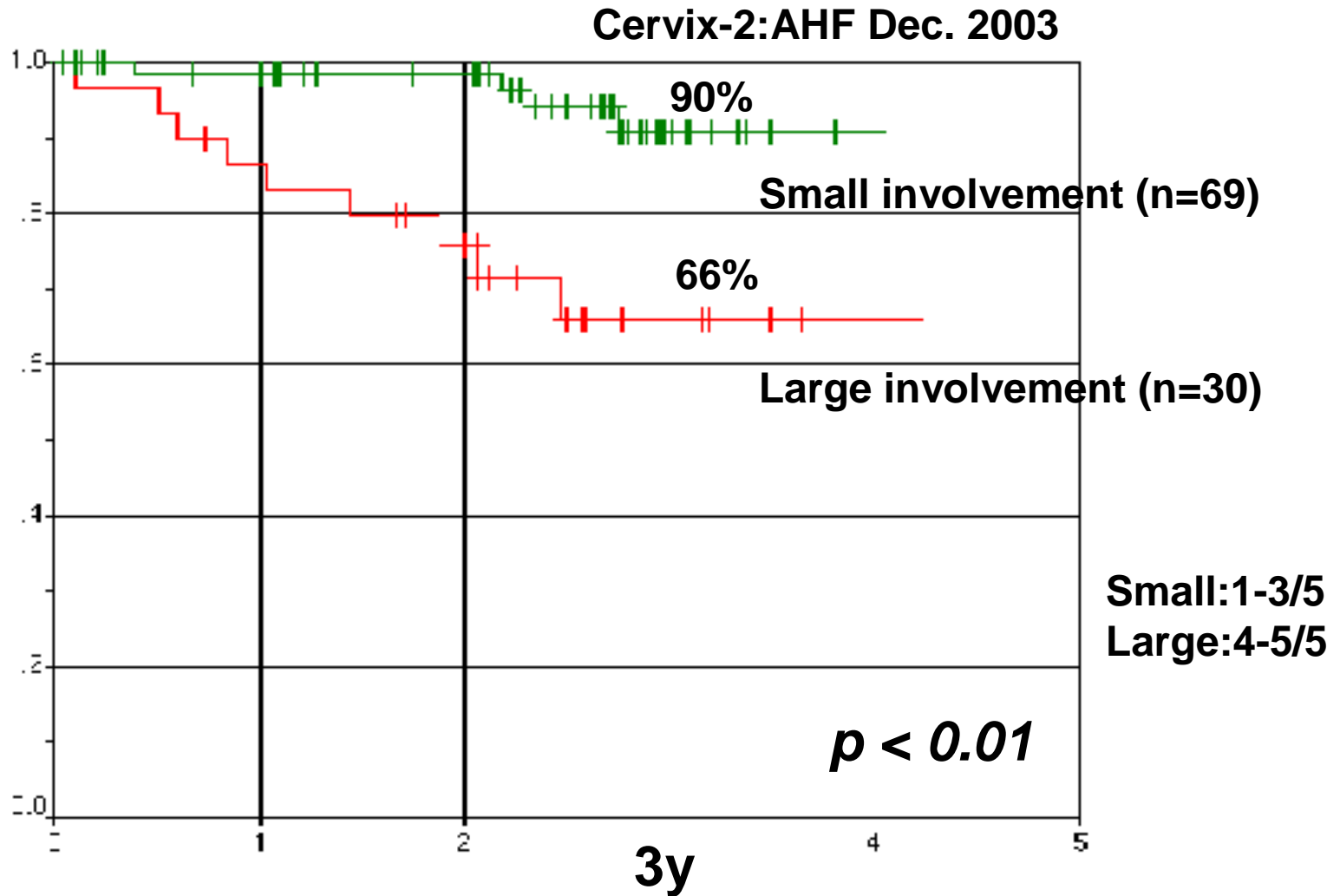
Cervix-2:AHF Dec. 2003



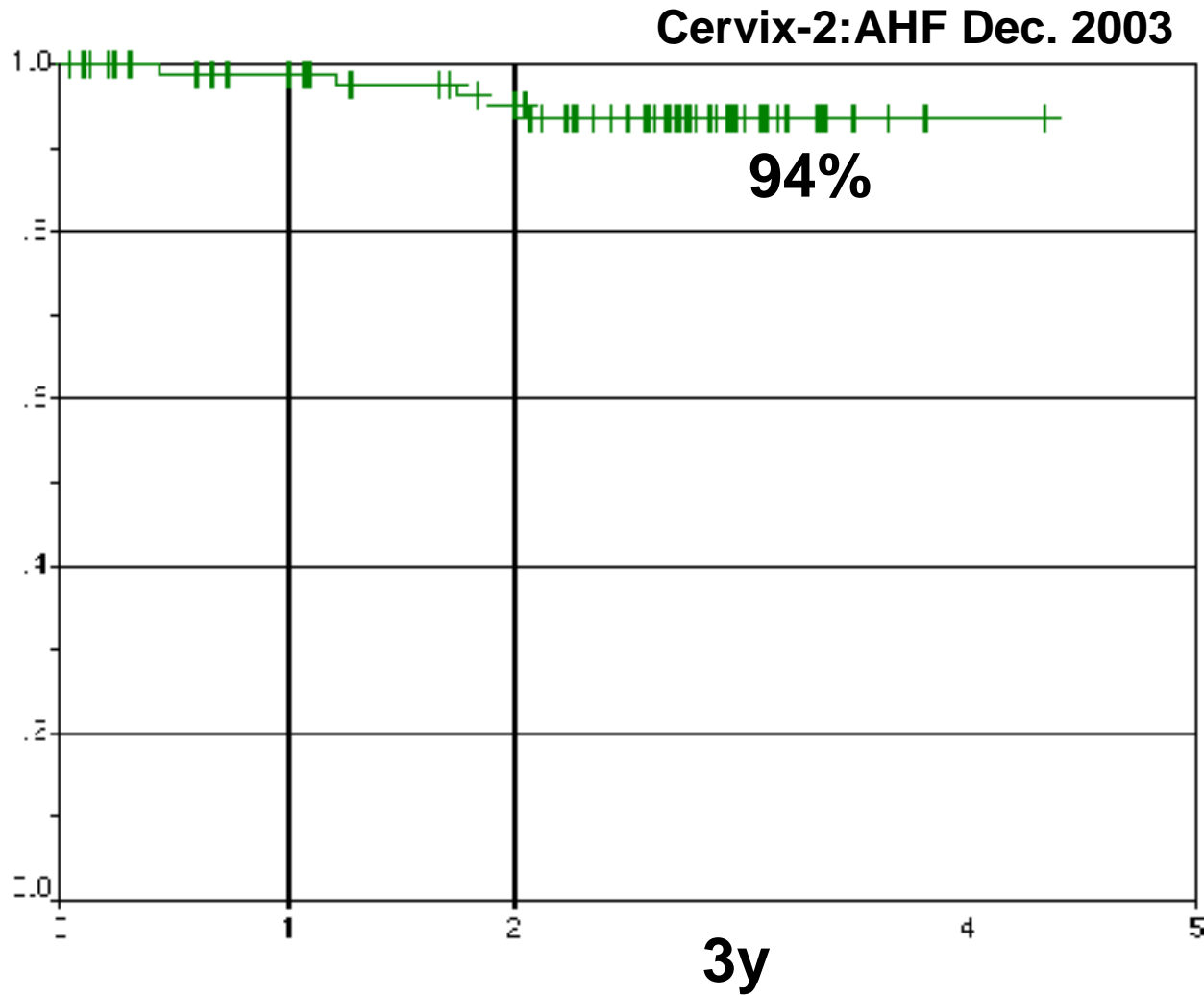
# Overall Survival by Tumor Size



# Overall Survival by Parametrium Involvement

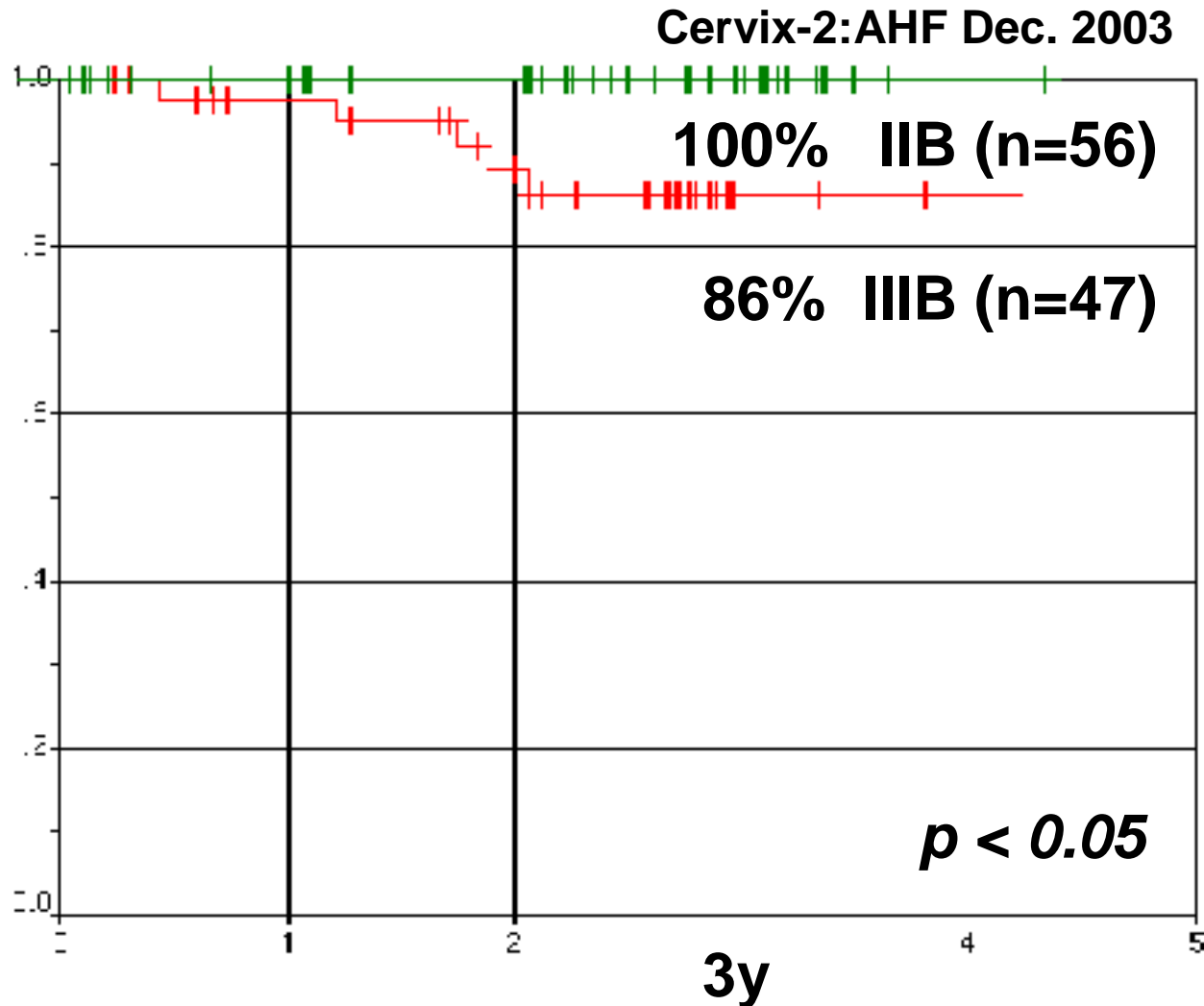


# Local Control for All 103 Patients

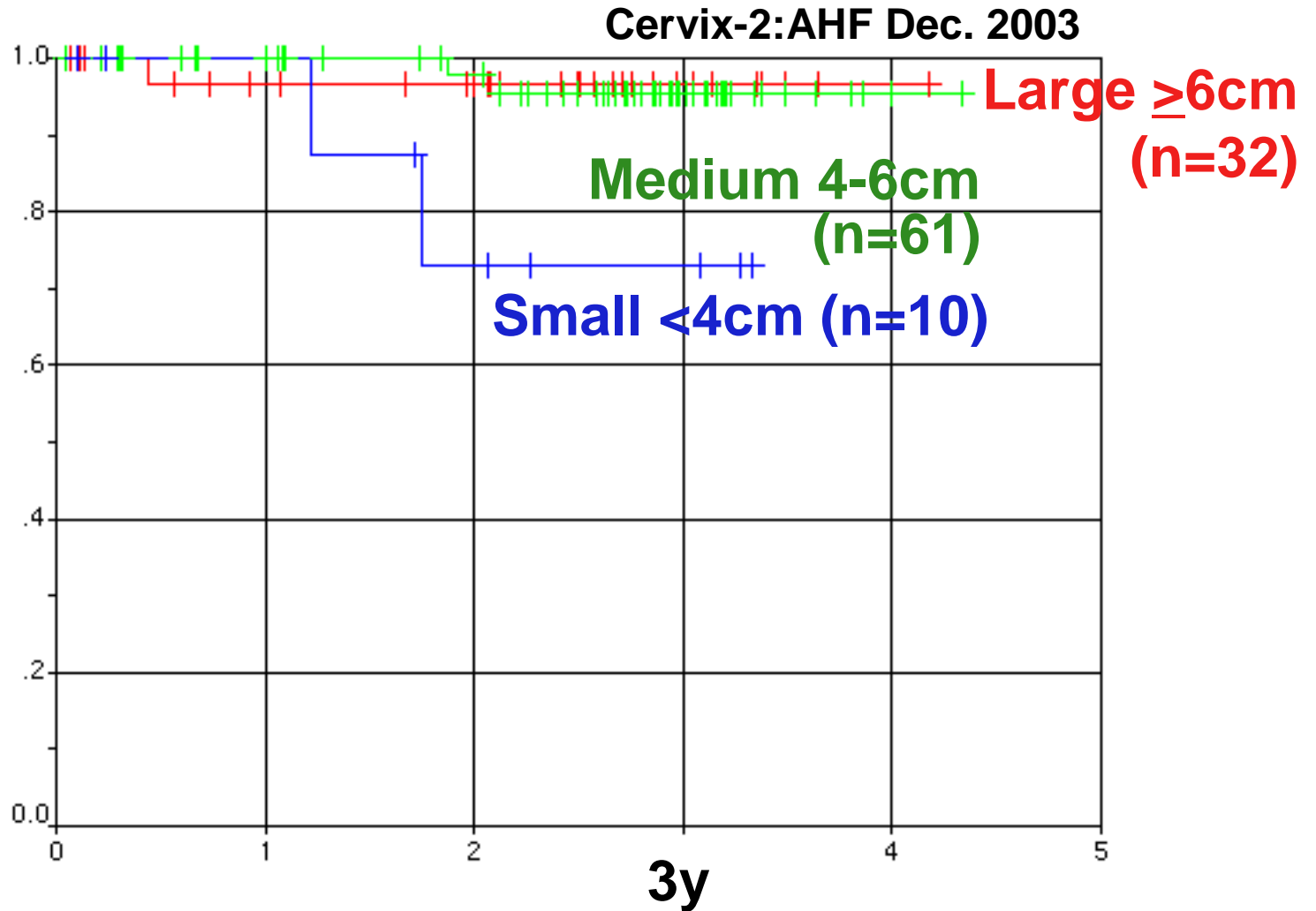




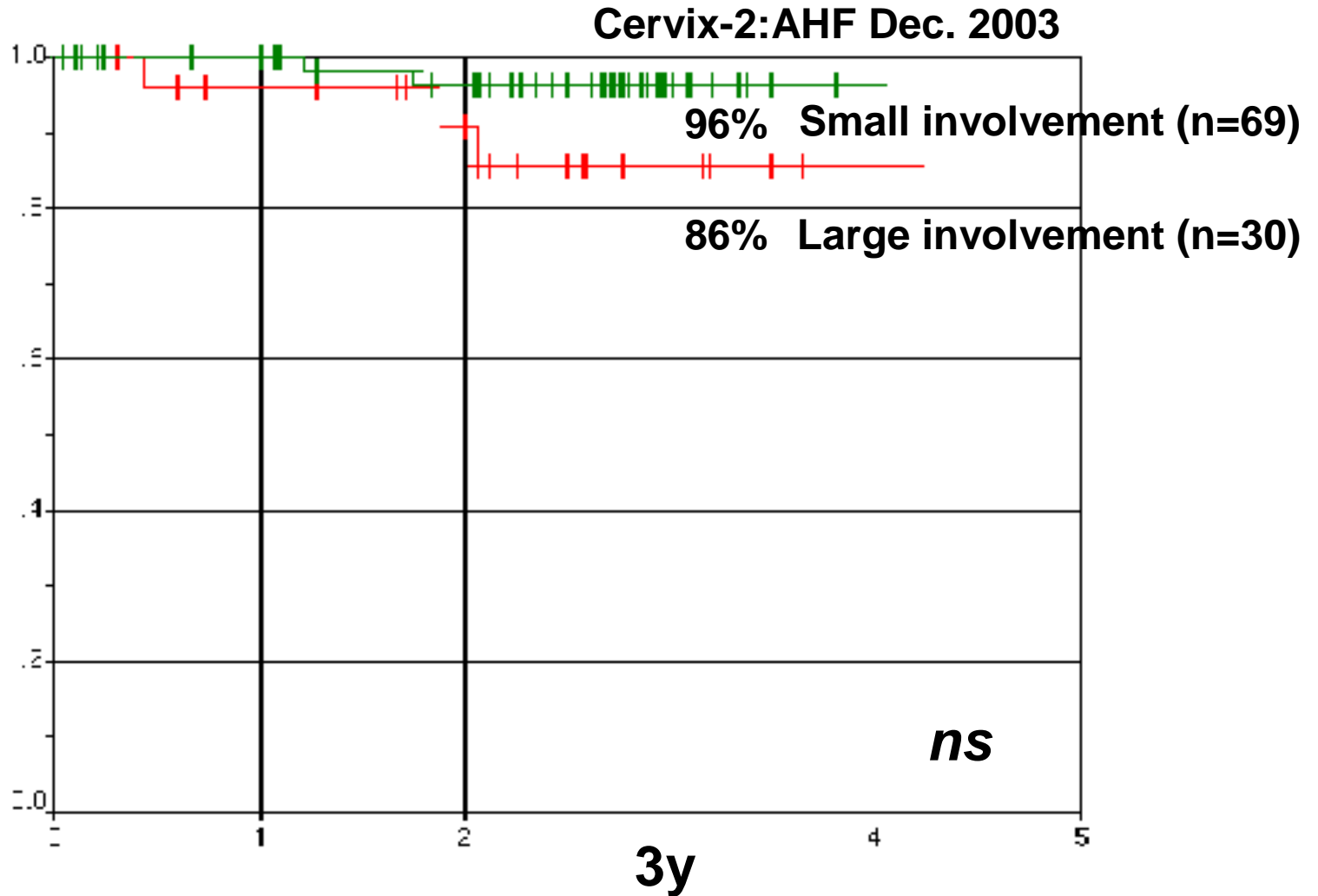
# Local Control by FIGO Stage



# Local Control by Tumor Size



# Local Control by Parametrium Involvement



**Comparison  
between  
Cervix-I  
and Cervix-II**

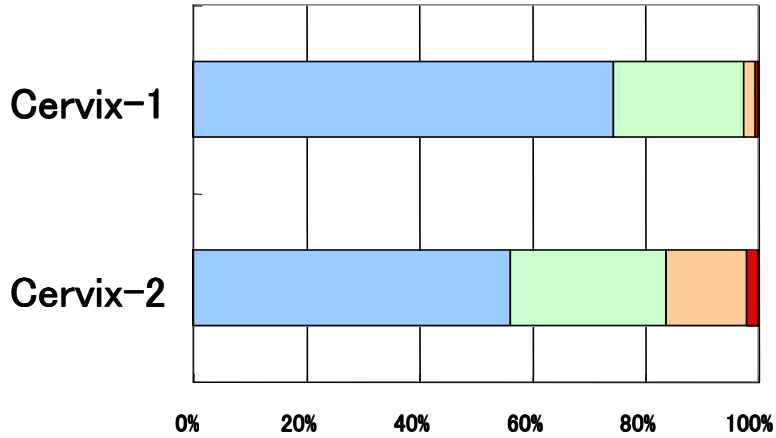
# Patients Characteristics in Cervix-1 and -2

	<b>Cervix-1 (n=210)</b>	<b>Cervix-2 (n=103)</b>
<b>Mean Age</b>	<b>56</b>	<b>54</b>
<b>FIGO Stage IIB</b>	<b>0 (0%)</b>	<b>56 (54%)</b>
<b>IIIB</b>	<b>209 (100%)</b>	<b>47 (46%)</b>
<b>Tumor Size &lt;4cm</b>	<b>71 (34%)</b>	<b>10 (10%)</b>
<b>4-6cm</b>	<b>108 (52%)</b>	<b>61 (59%)</b>
<b>≥6cm</b>	<b>30 (14%)</b>	<b>32 (31%)</b>
<b>PM involvement</b>		
<b>Small (1-3/5)</b>	<b>93 (44%)</b>	<b>69 (67%)</b>
<b>Large (4-5/5)</b>	<b>83 (40%)</b>	<b>30 (29%)</b>
<b>Followed</b>	<b>154 (74%)</b>	<b>87 (84%)</b>
<b>Not Followed</b>	<b>55 (26%)</b>	<b>16 (16%)</b>

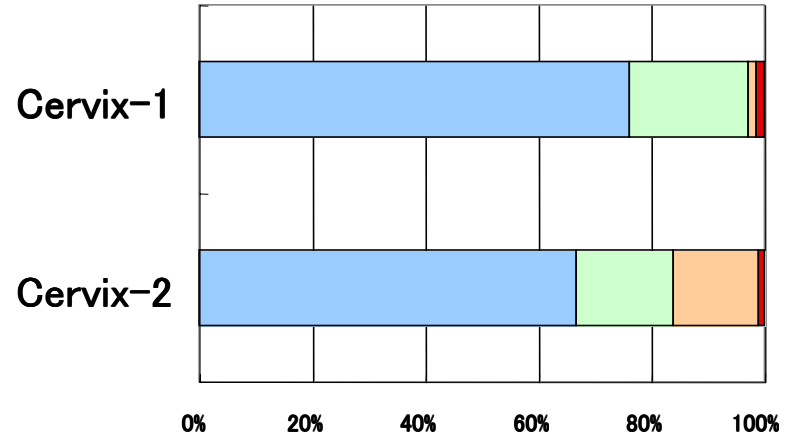
# Acute Morbidity



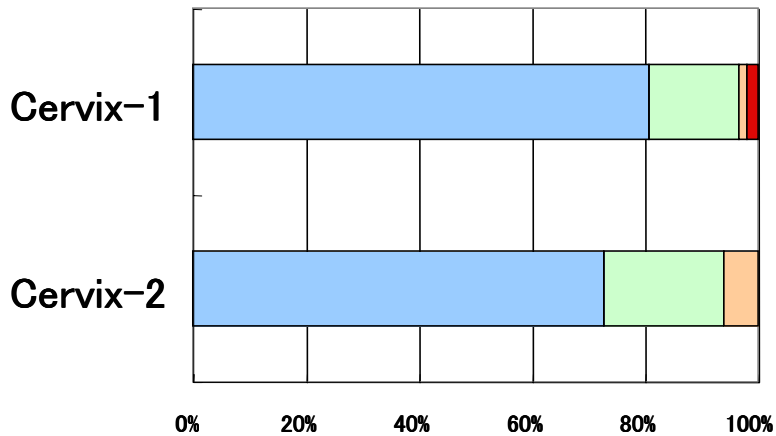
## Rectum



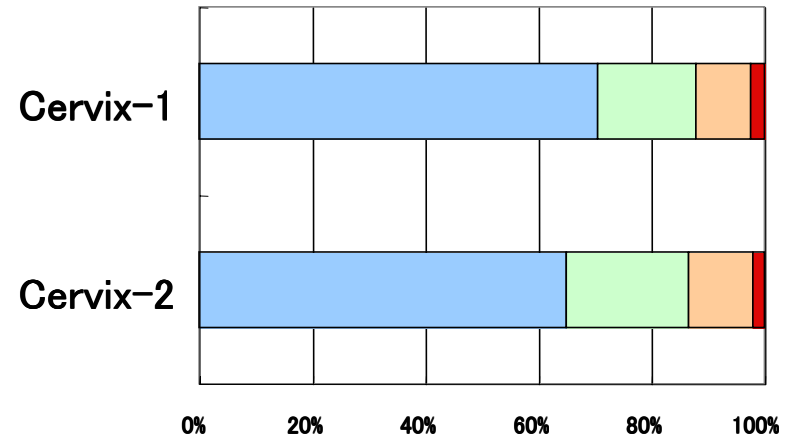
## Intestine



## Bladder



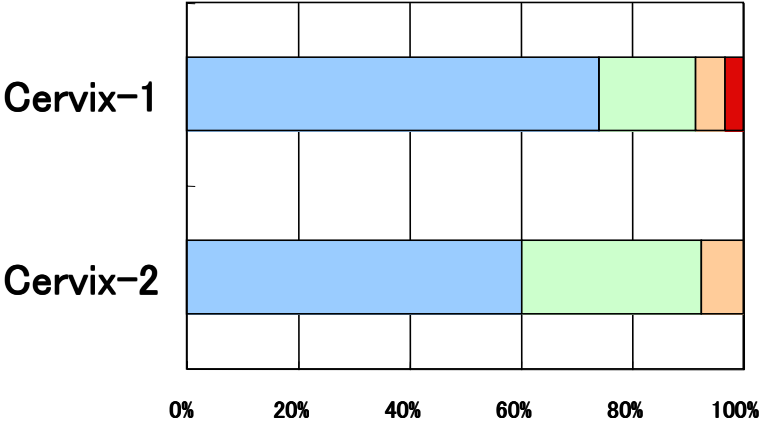
## Mucosa



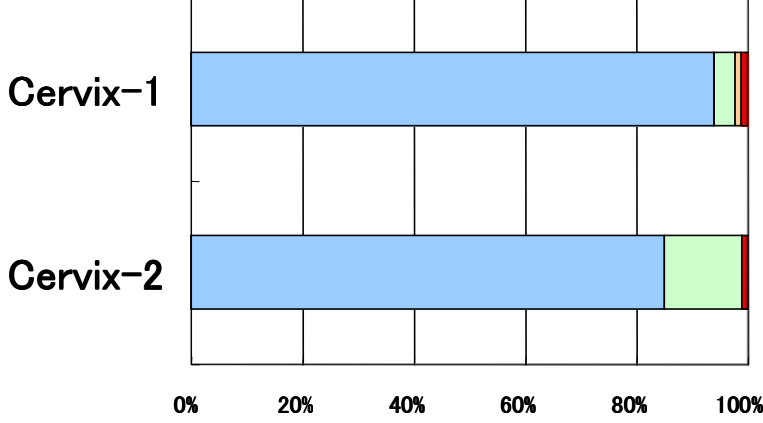
# Late Morbidity



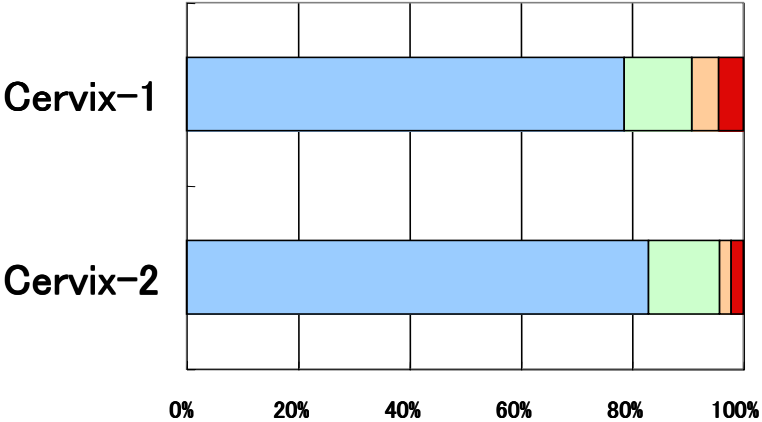
## Rectum



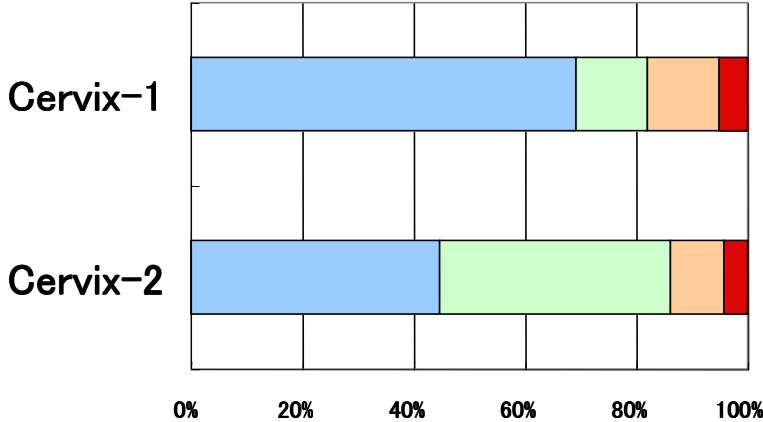
## Intestine



## Bladder

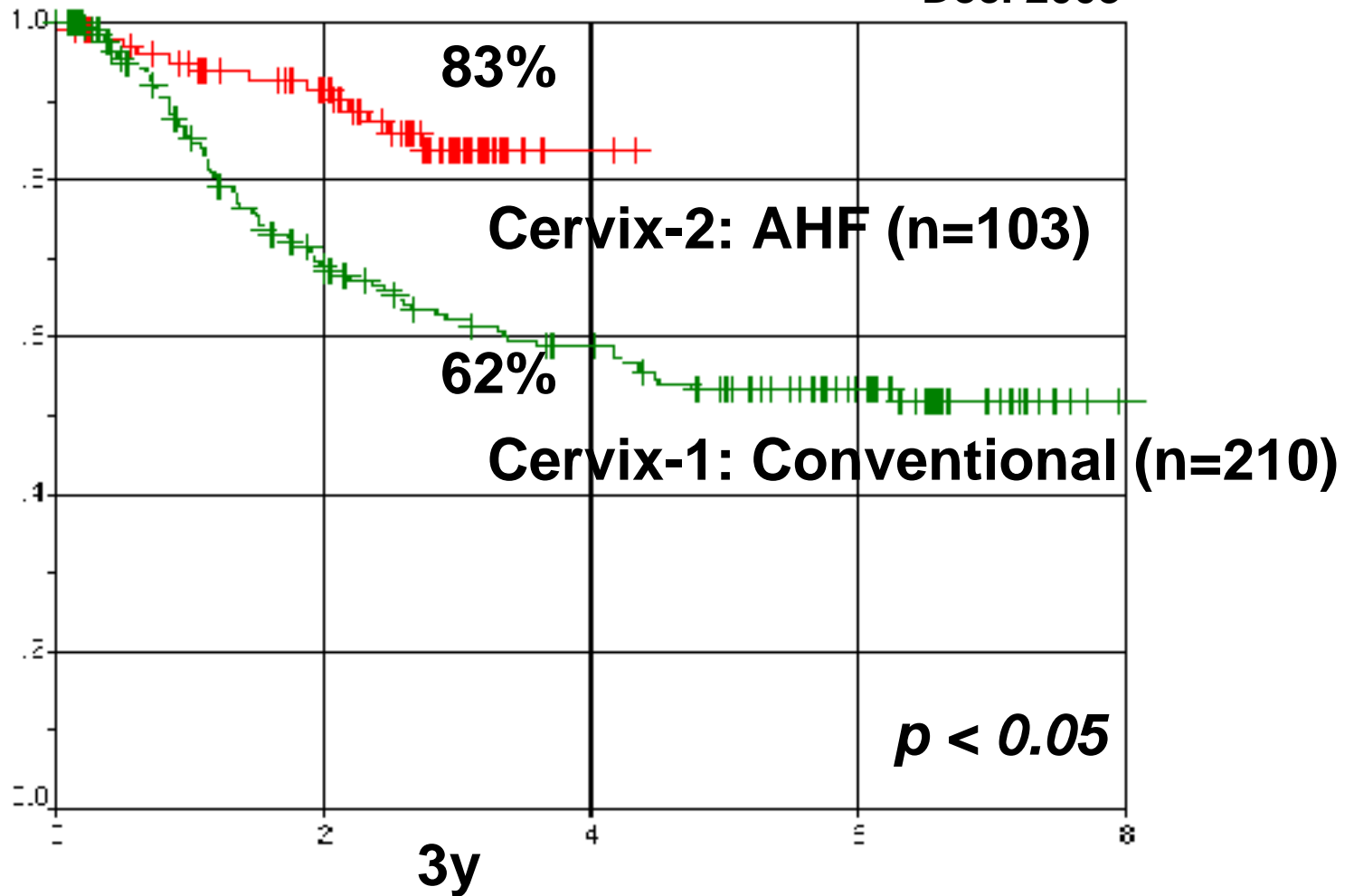


## Mucosa



# Overall Survival for All Patients

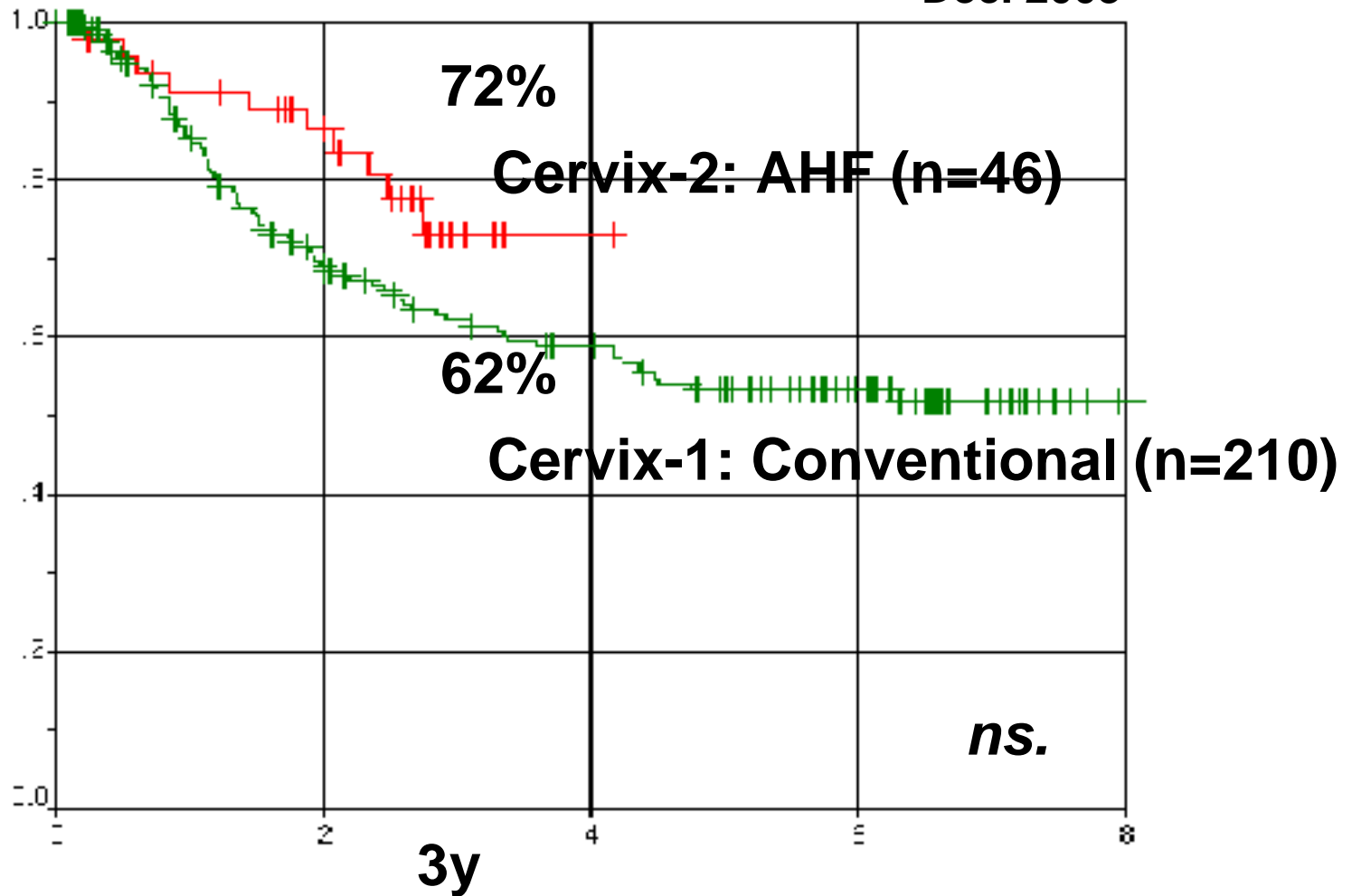
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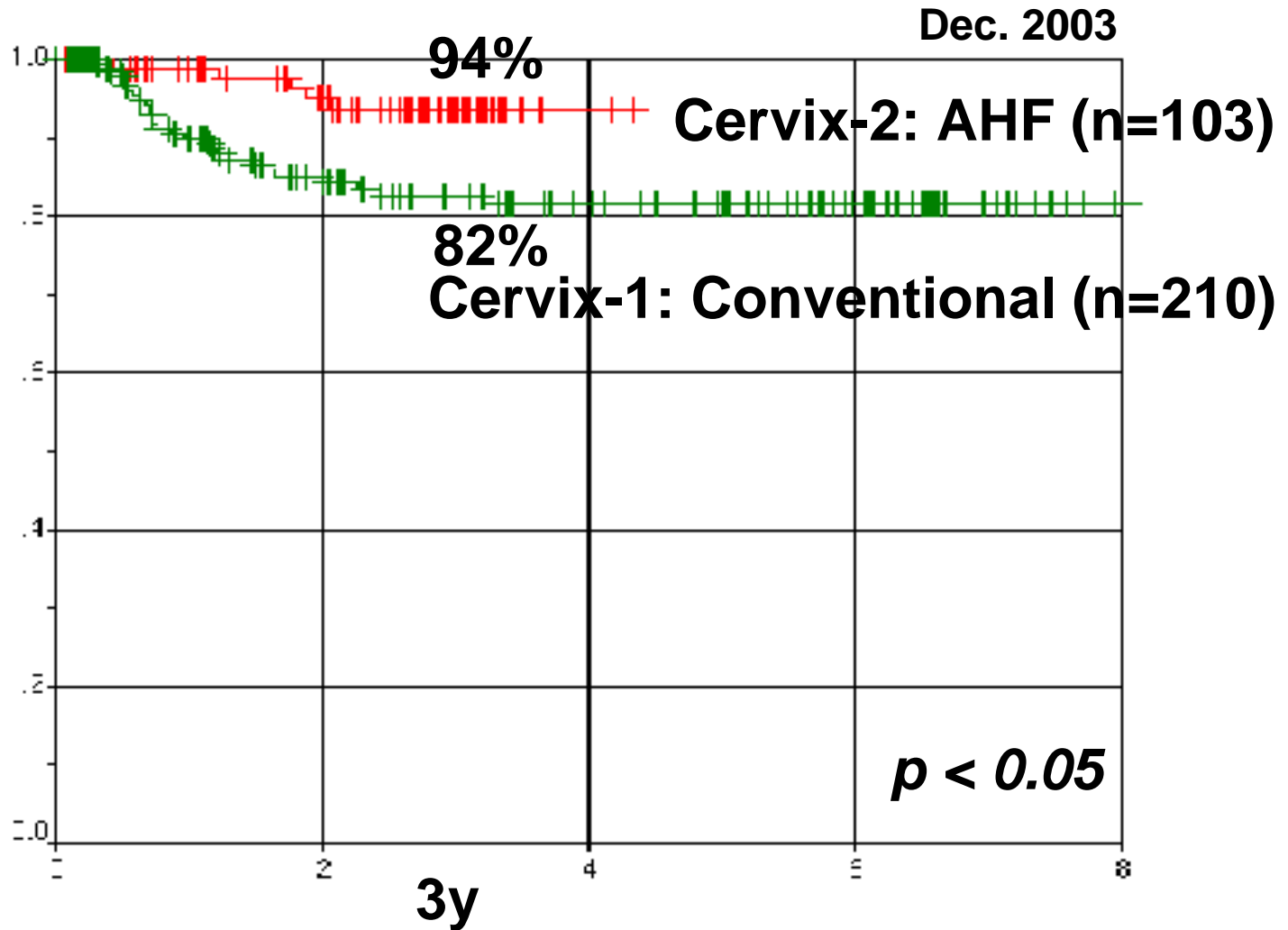


# Overall Survival for Patients with Stage IIIB

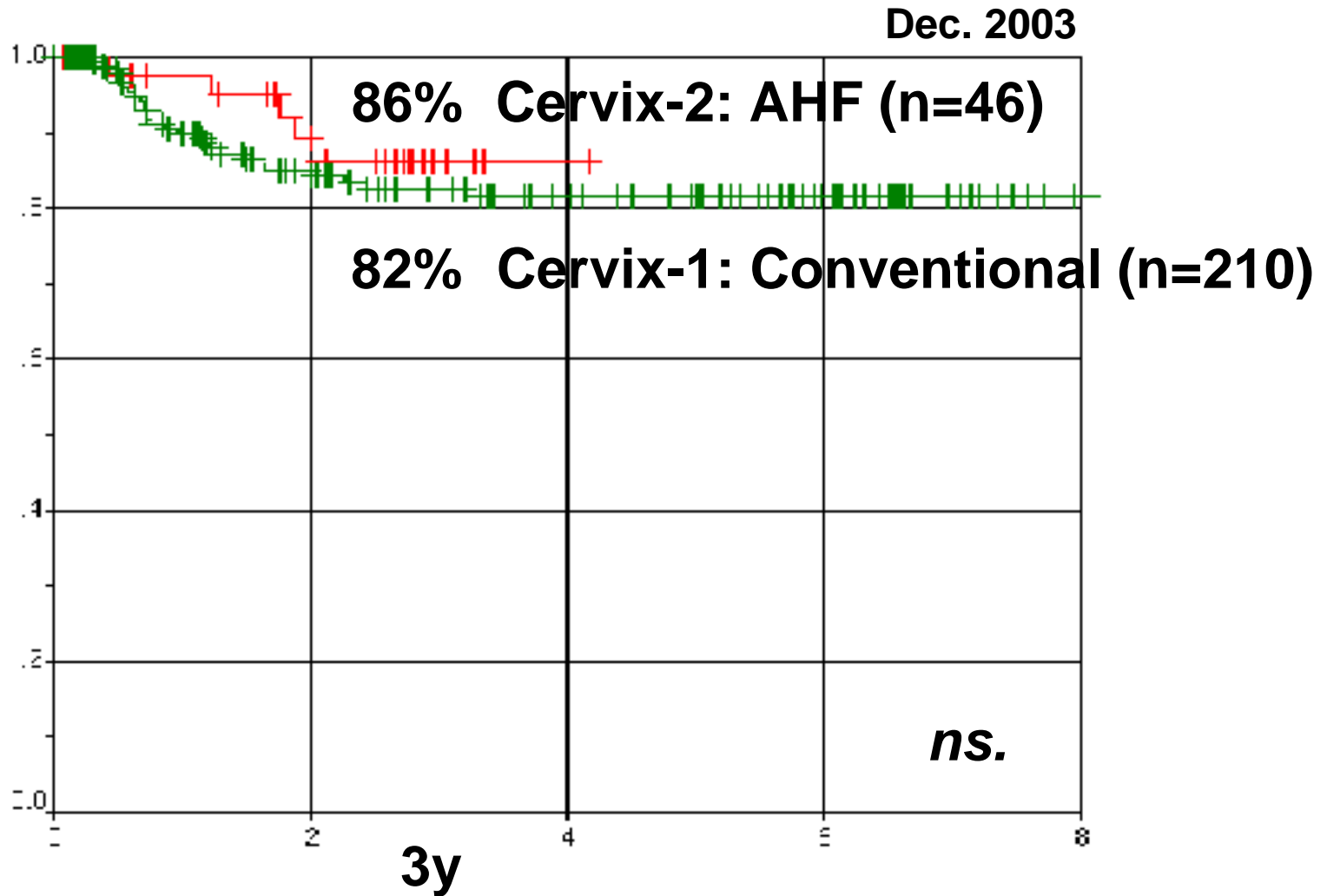
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# Local Control for All Patients

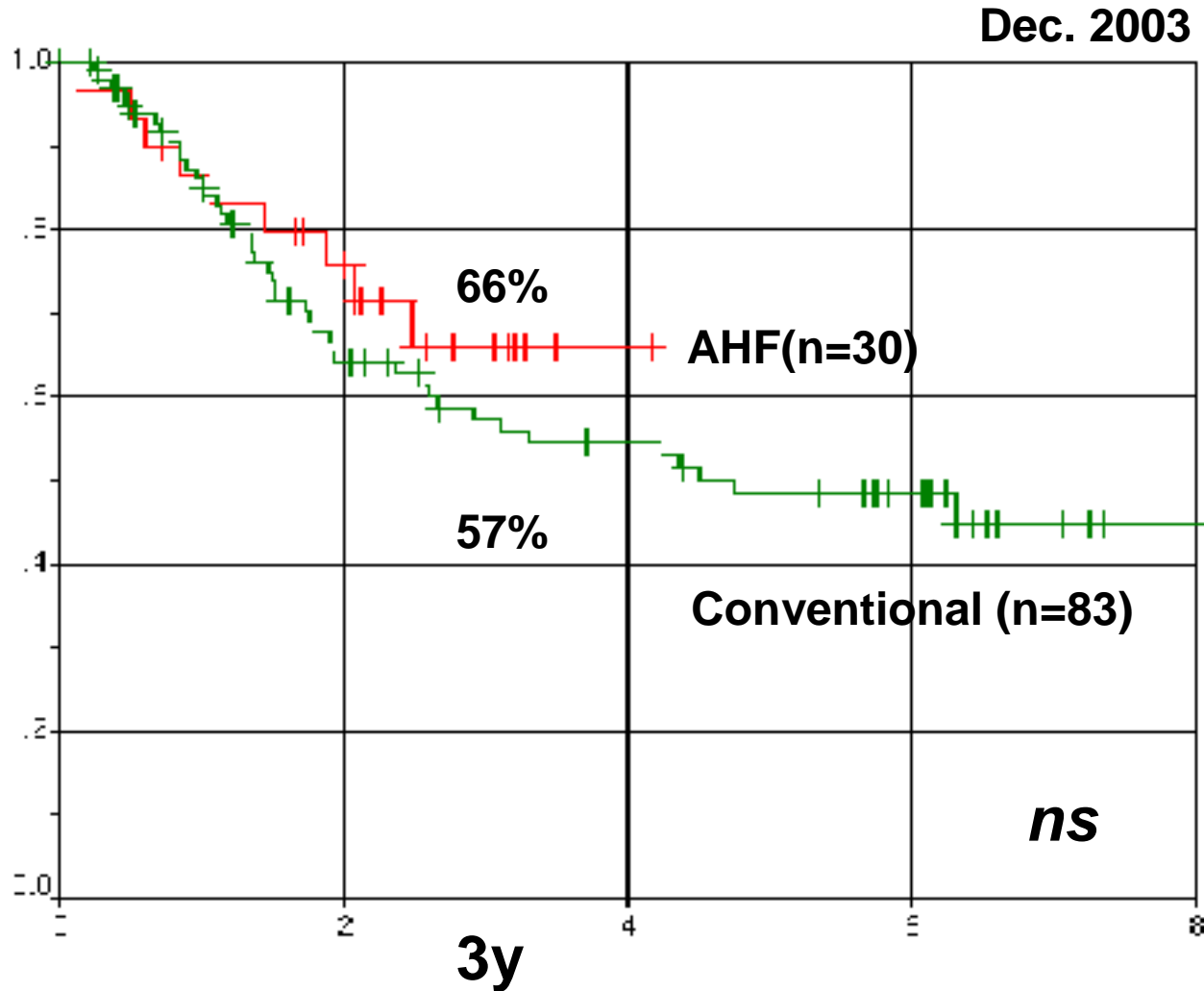


# Local Control for Patients with Stage IIIB

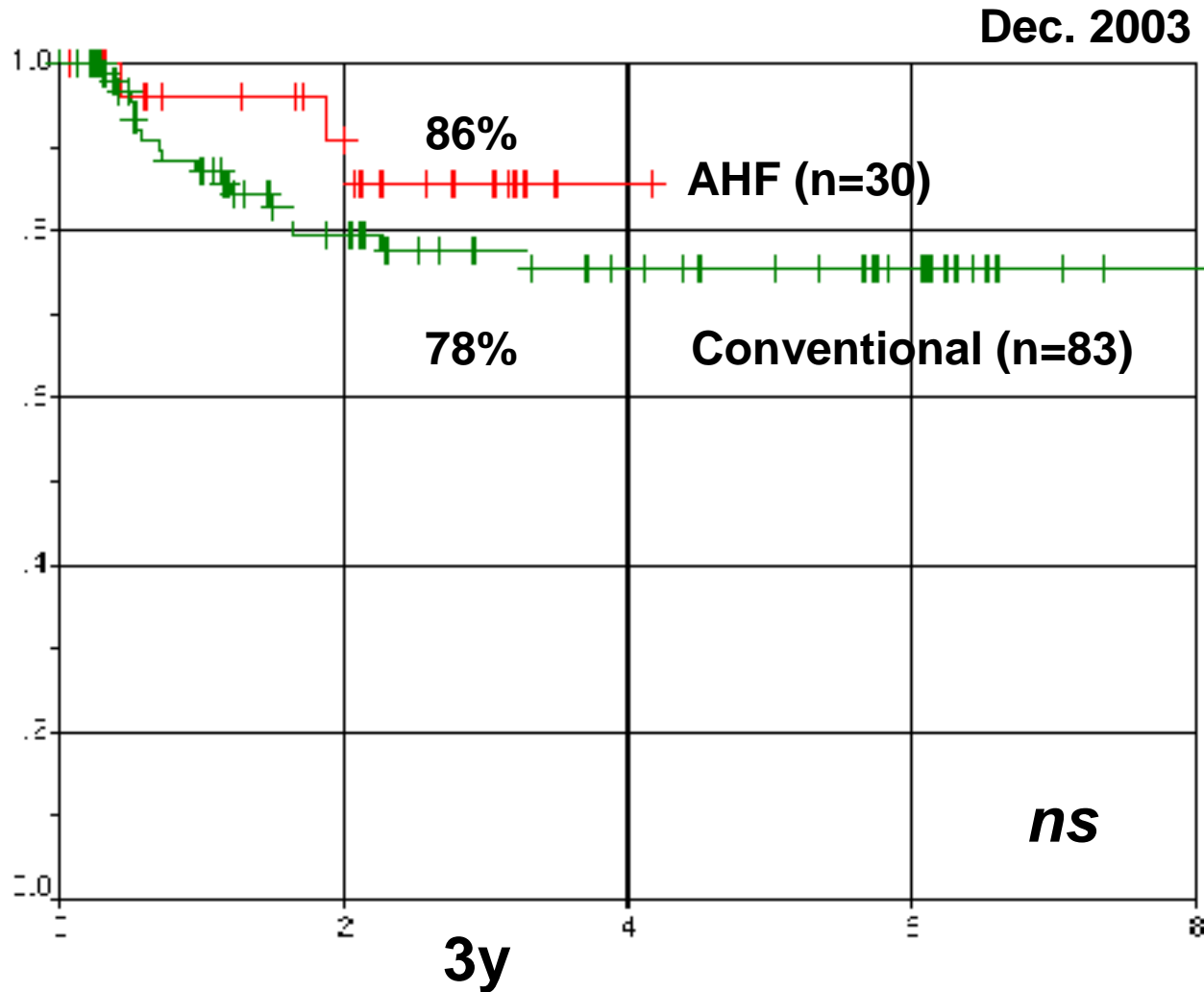




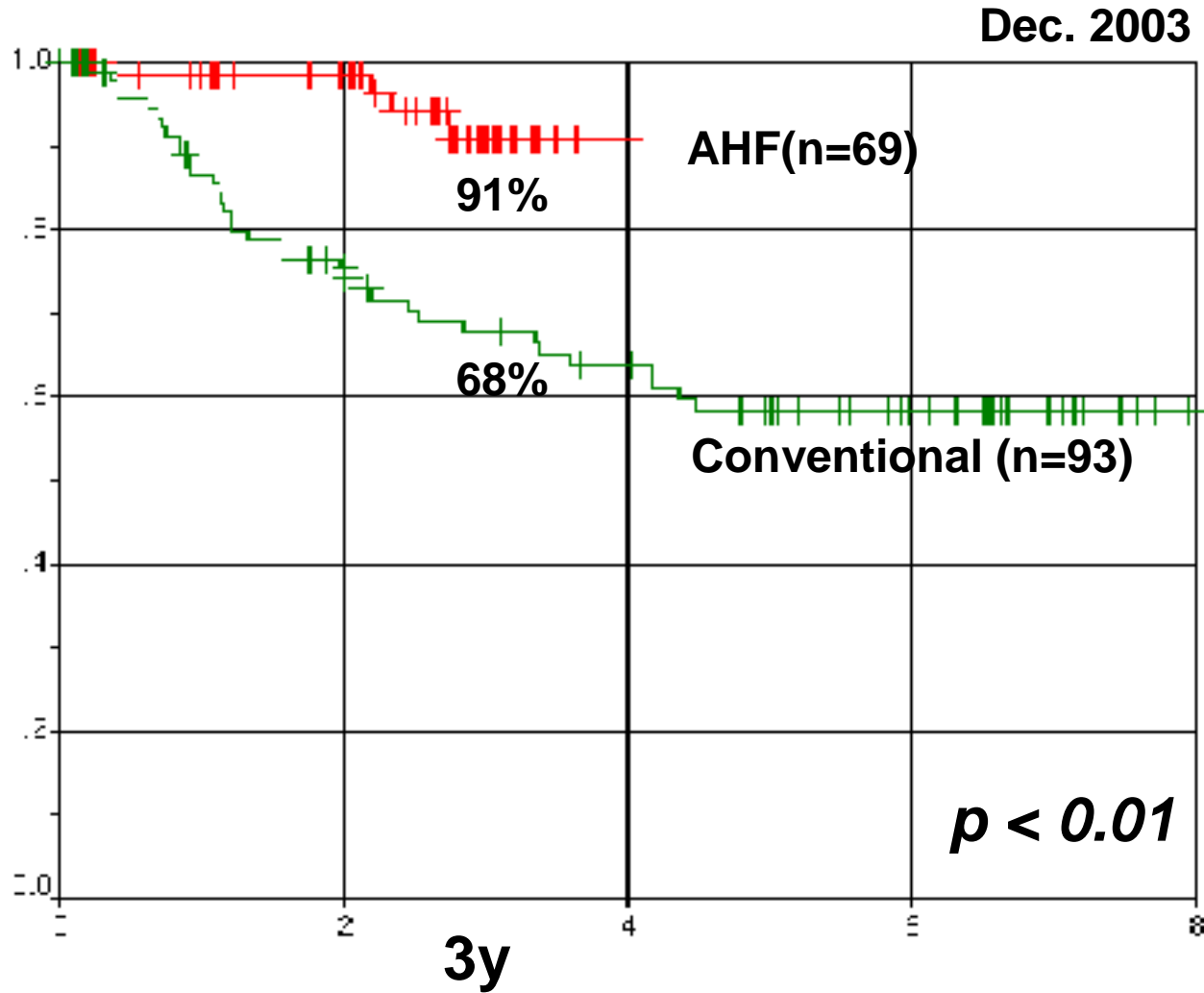
# Overall Survival of Large Parametrium Involvement



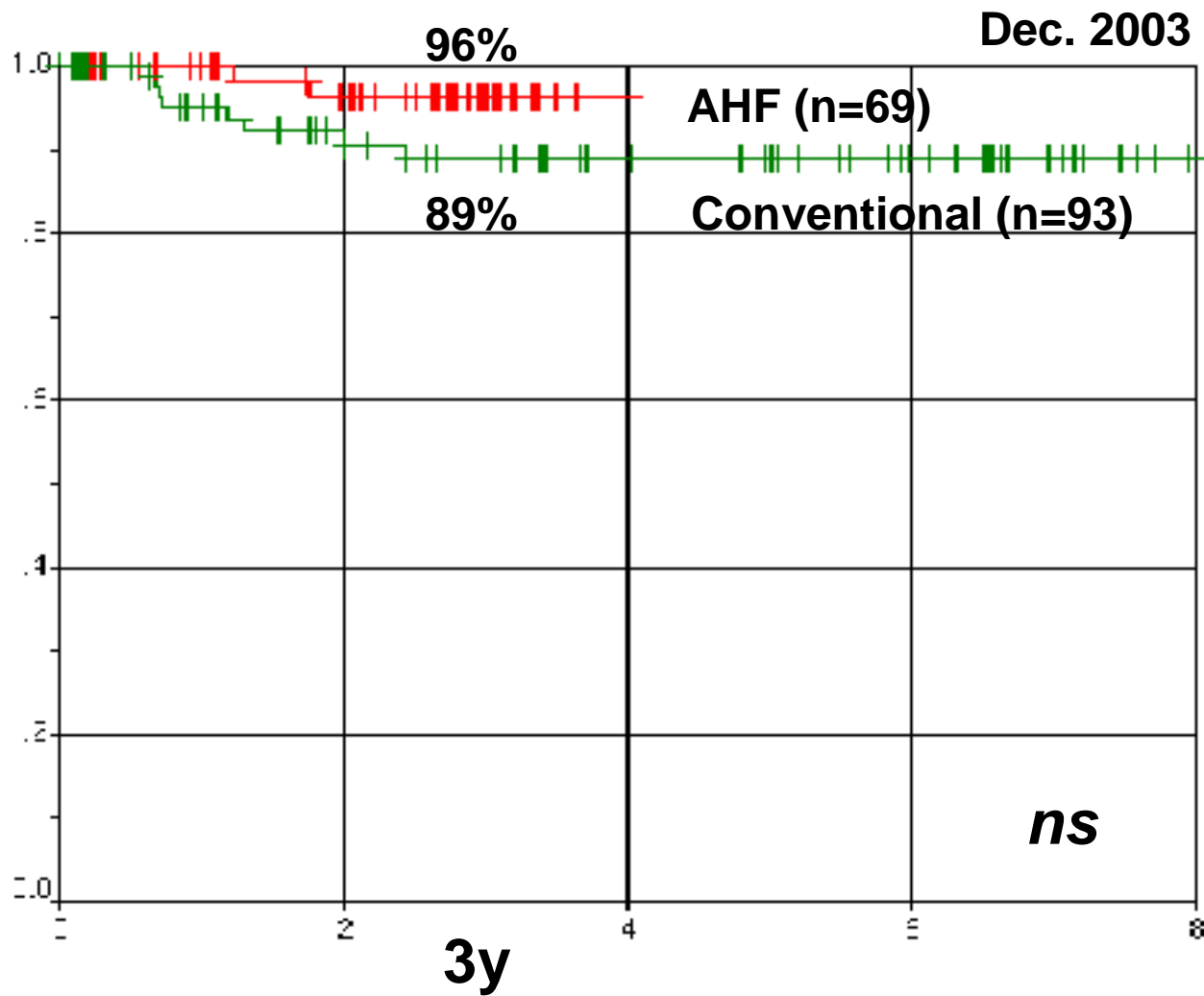
# Local Control of Large Parametrium Involvement



# Overall Survival of Small Parametrium Involvement



# Local Control of Small Parametrium Involvement



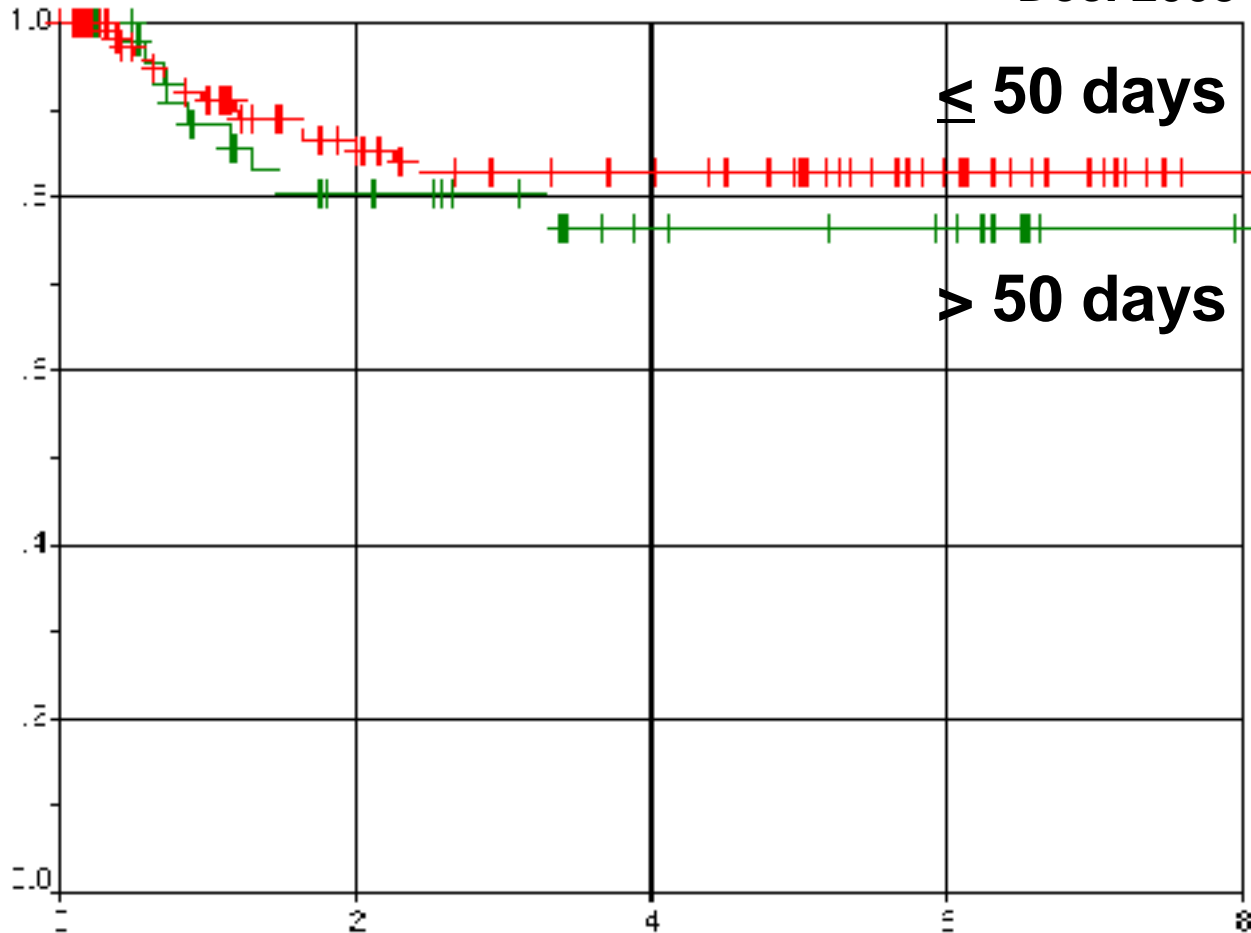


**Impact of Overall  
Treatment Time  
on  
Local Control and  
Overall Survival**

# Local Control by OTT

## Cervix-1

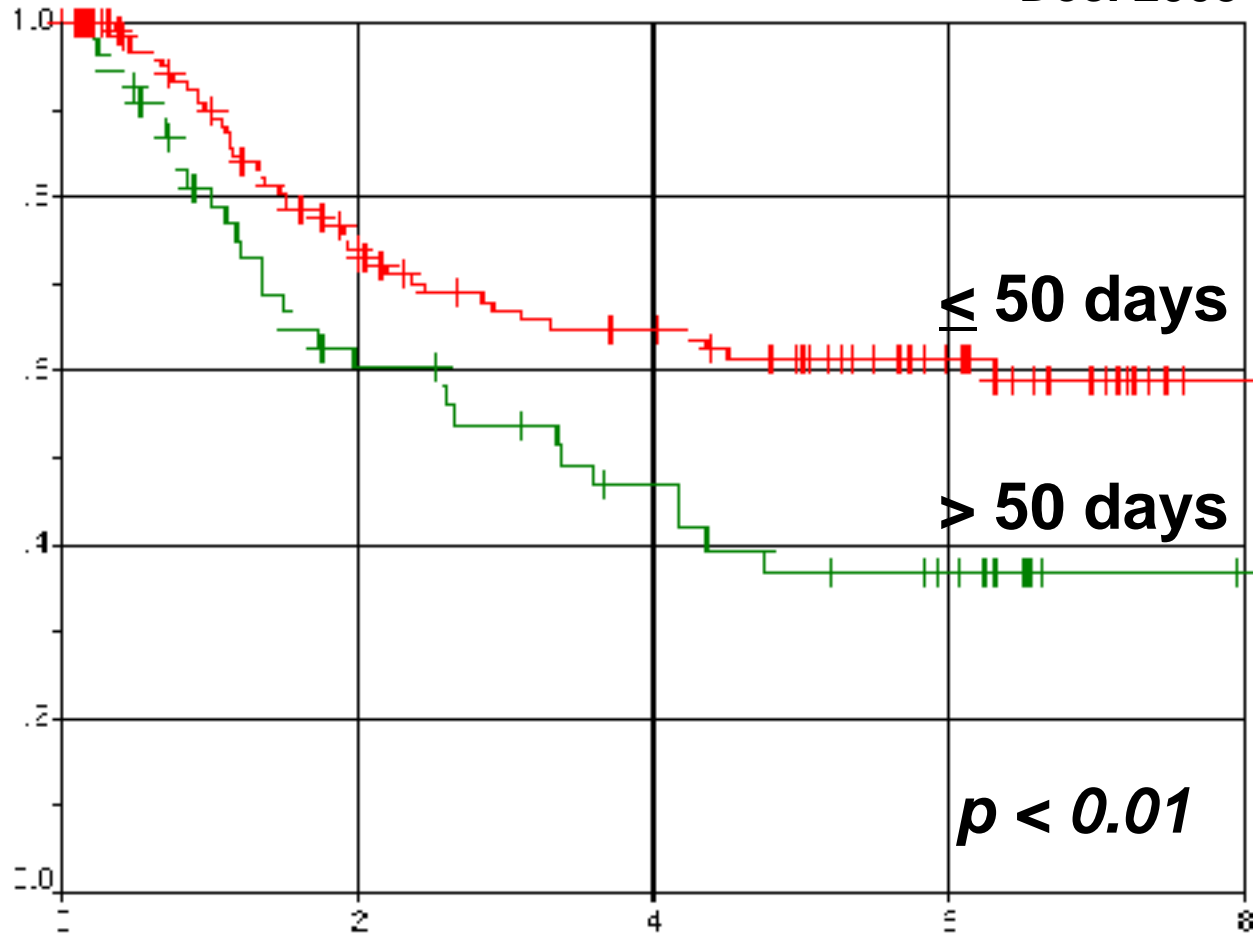
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# Overall Survival by OTT

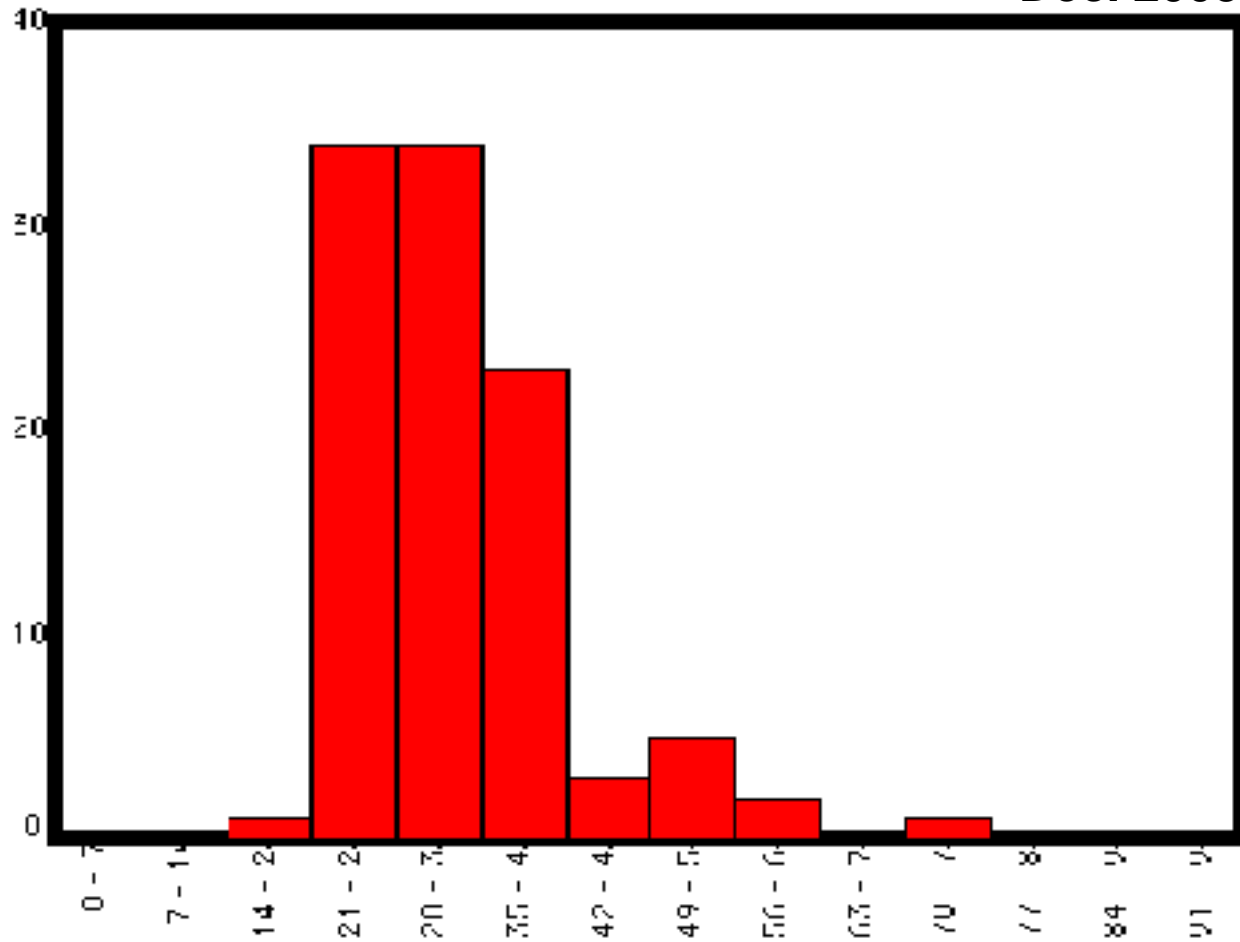
Cervix-1

Dec. 2003



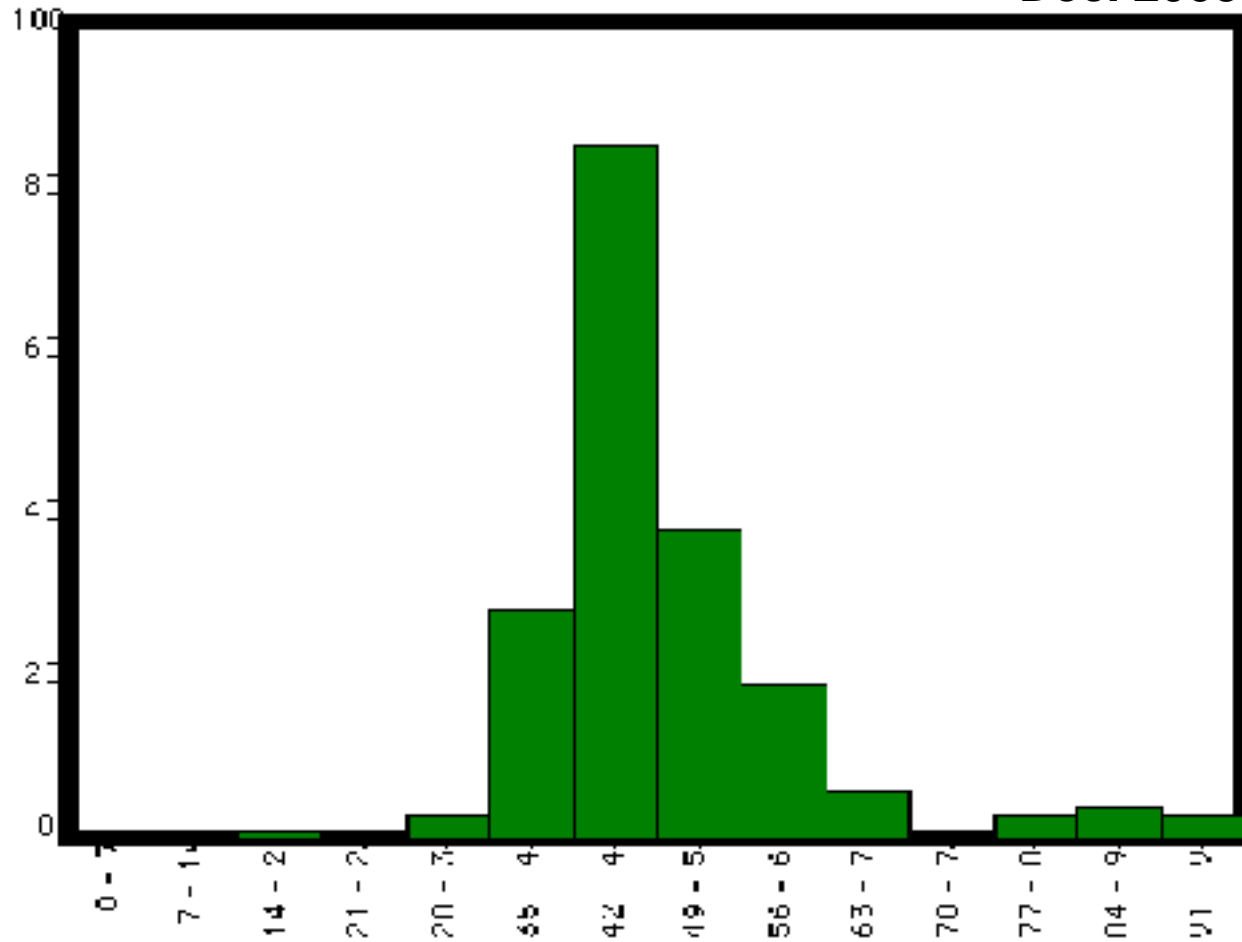
# Distribution of OTT in Cervix-2

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# Distribution of OTT in Cervix-1

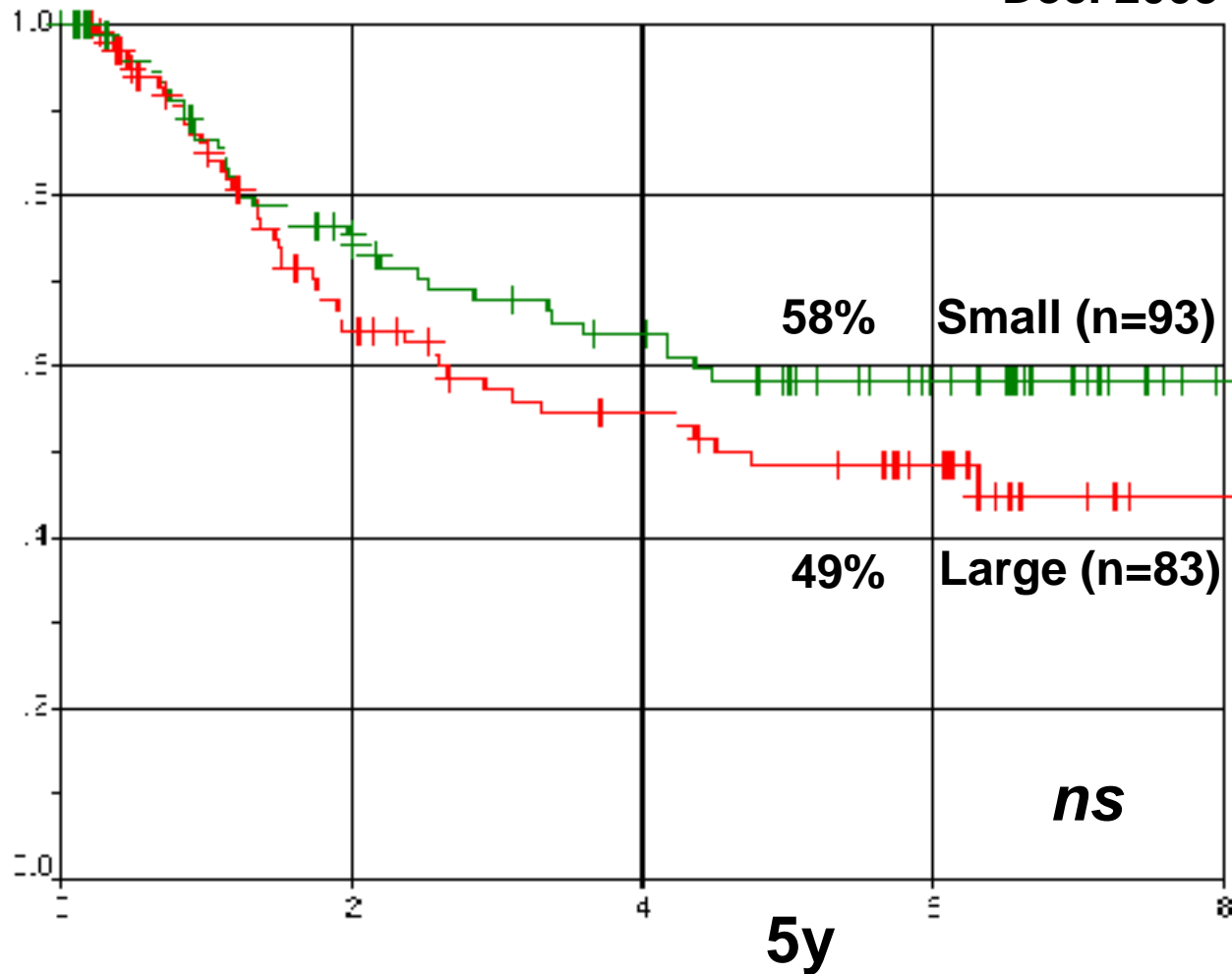
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# Overall Survival by Parametrium Involvement

## Cervix-1

Dec. 2003



# Local Control by Parametrium Involvement

## Cervix-1

Dec. 2003

