



2nd GBCC and 7th ABCS

October. 8th . 2009 in Seoul, Korea

Current Status of Breast Cancer in Korea

(During 1996. ~ 2008.)

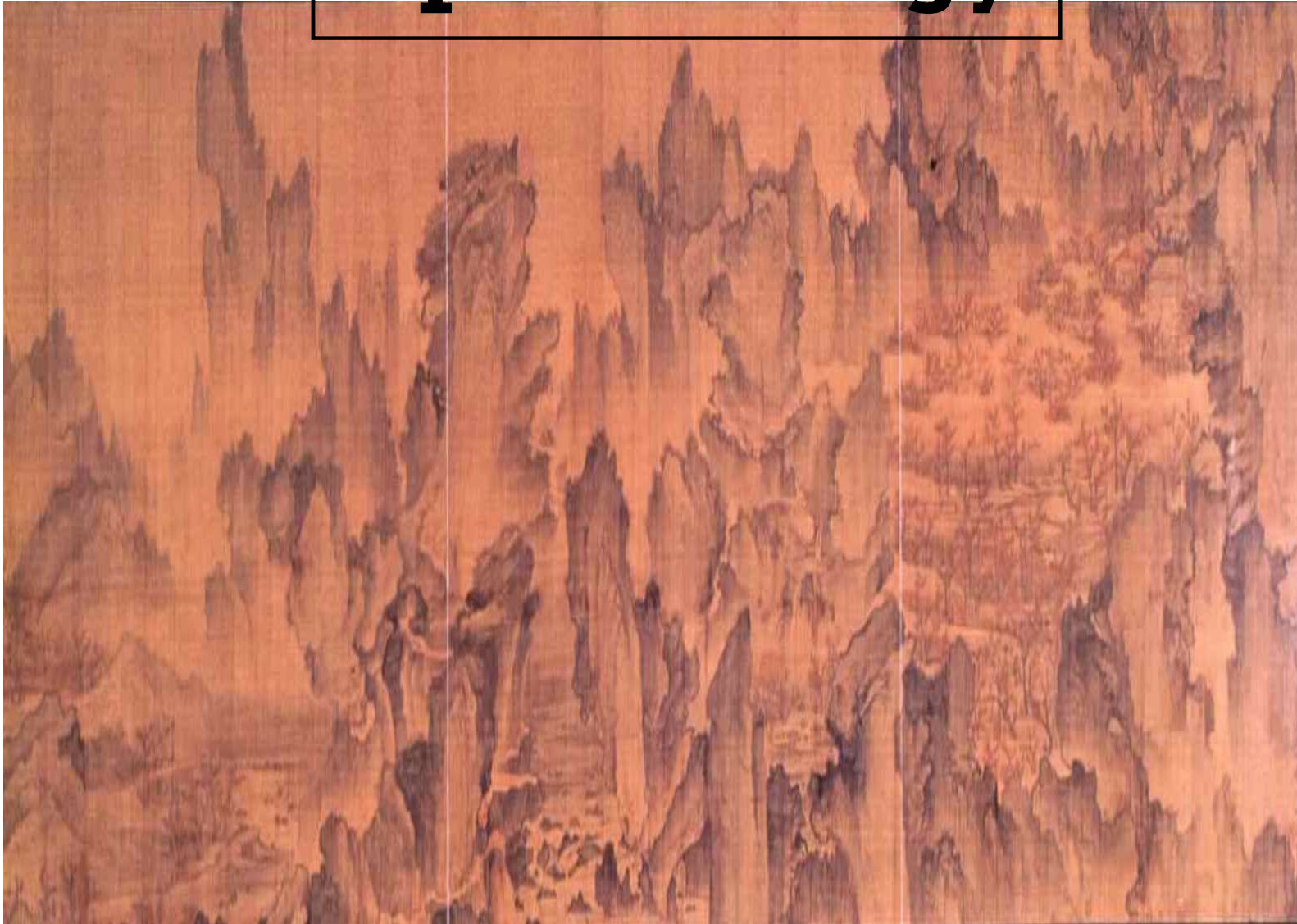
醫學博士 白南善

NAM-SUN PAIK, MD, PhD

President, Asian Breast Cancer Society
Konkuk University Medical Center,
Seoul, Korea

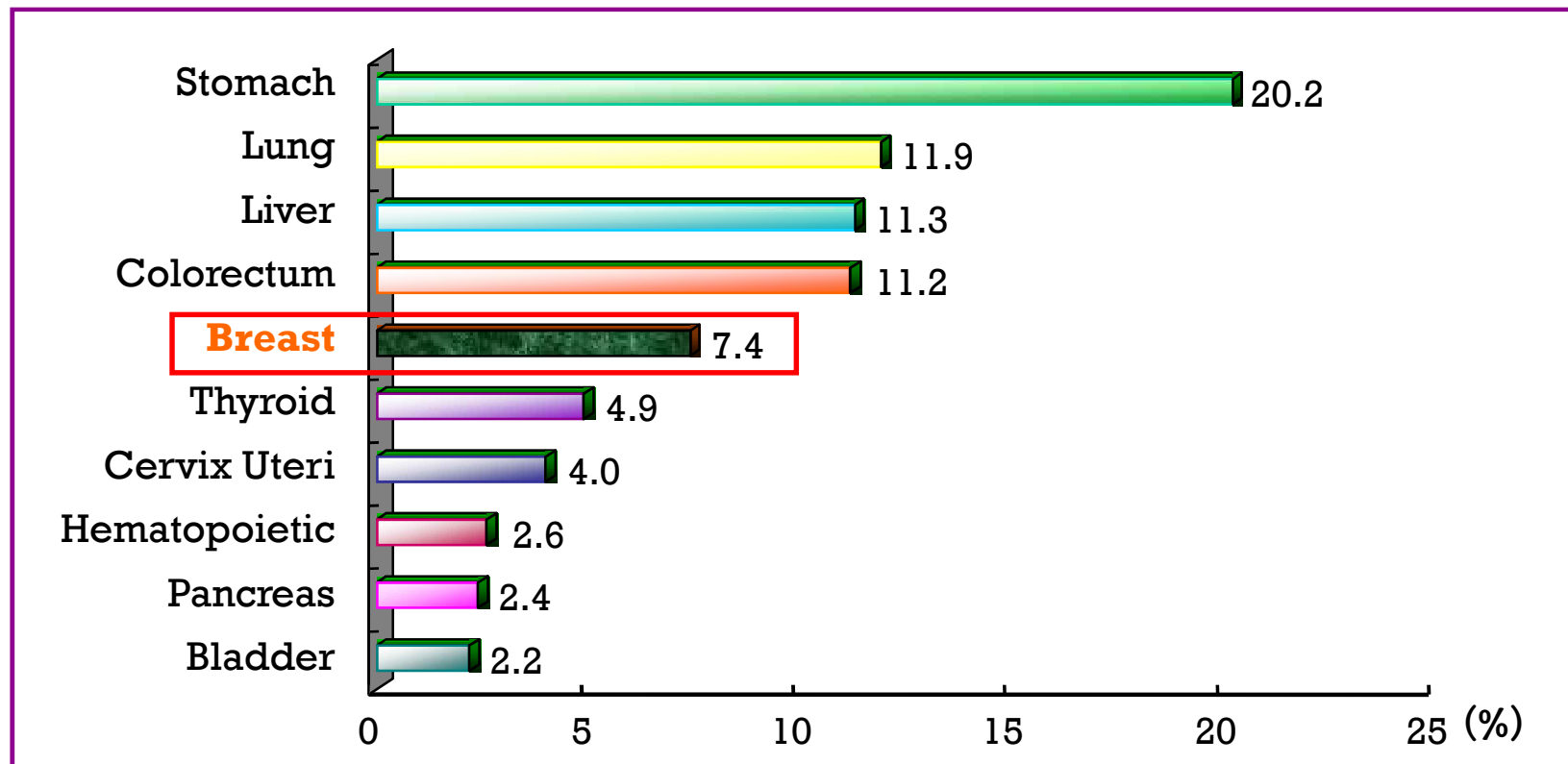


Epidemiology



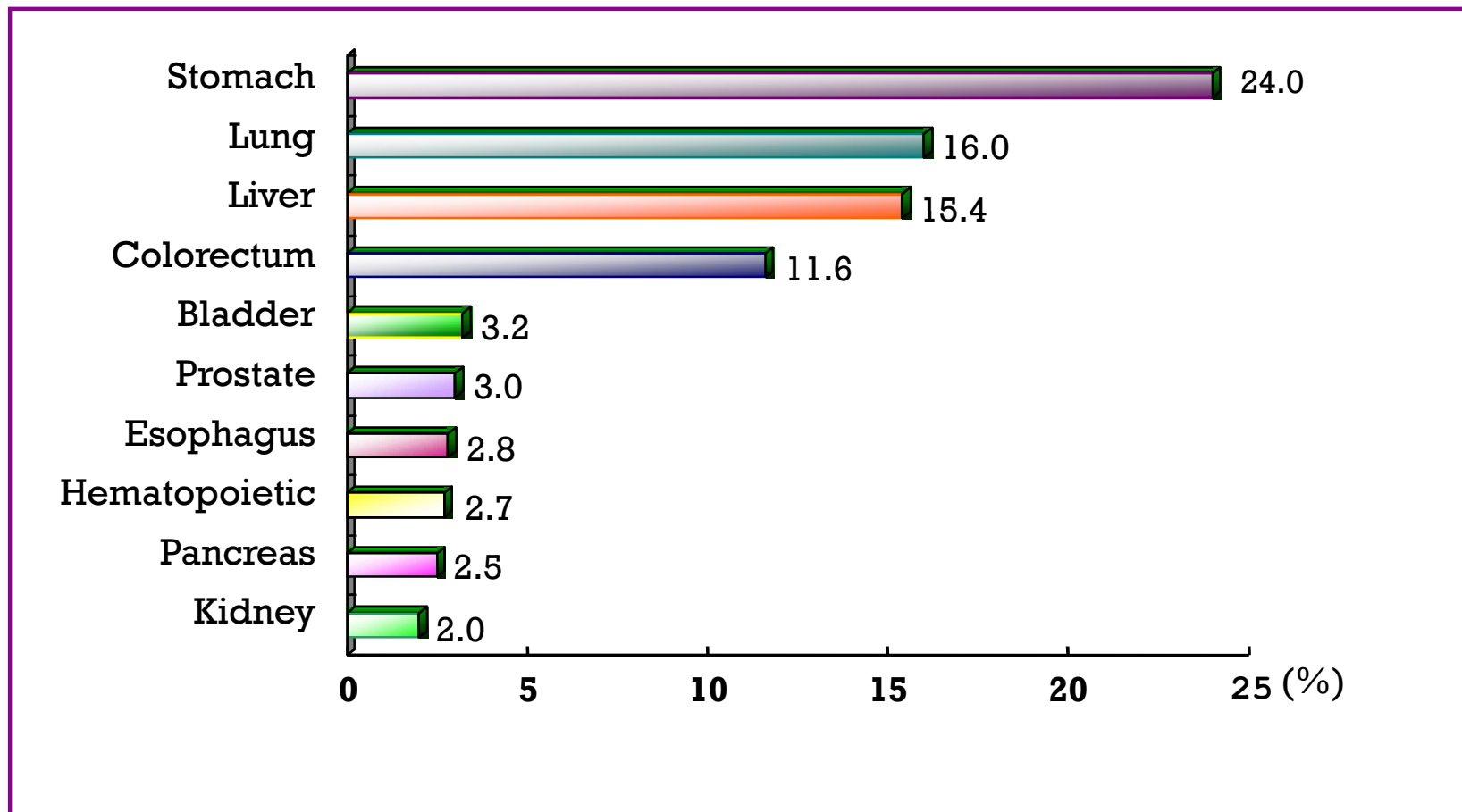
Ten Leading Primary Cancer in Korea (2002. 1. - 2002. 12.)

Total : 102,677 cases (advanced 99,025 & in situ cancer 3,652 cases)



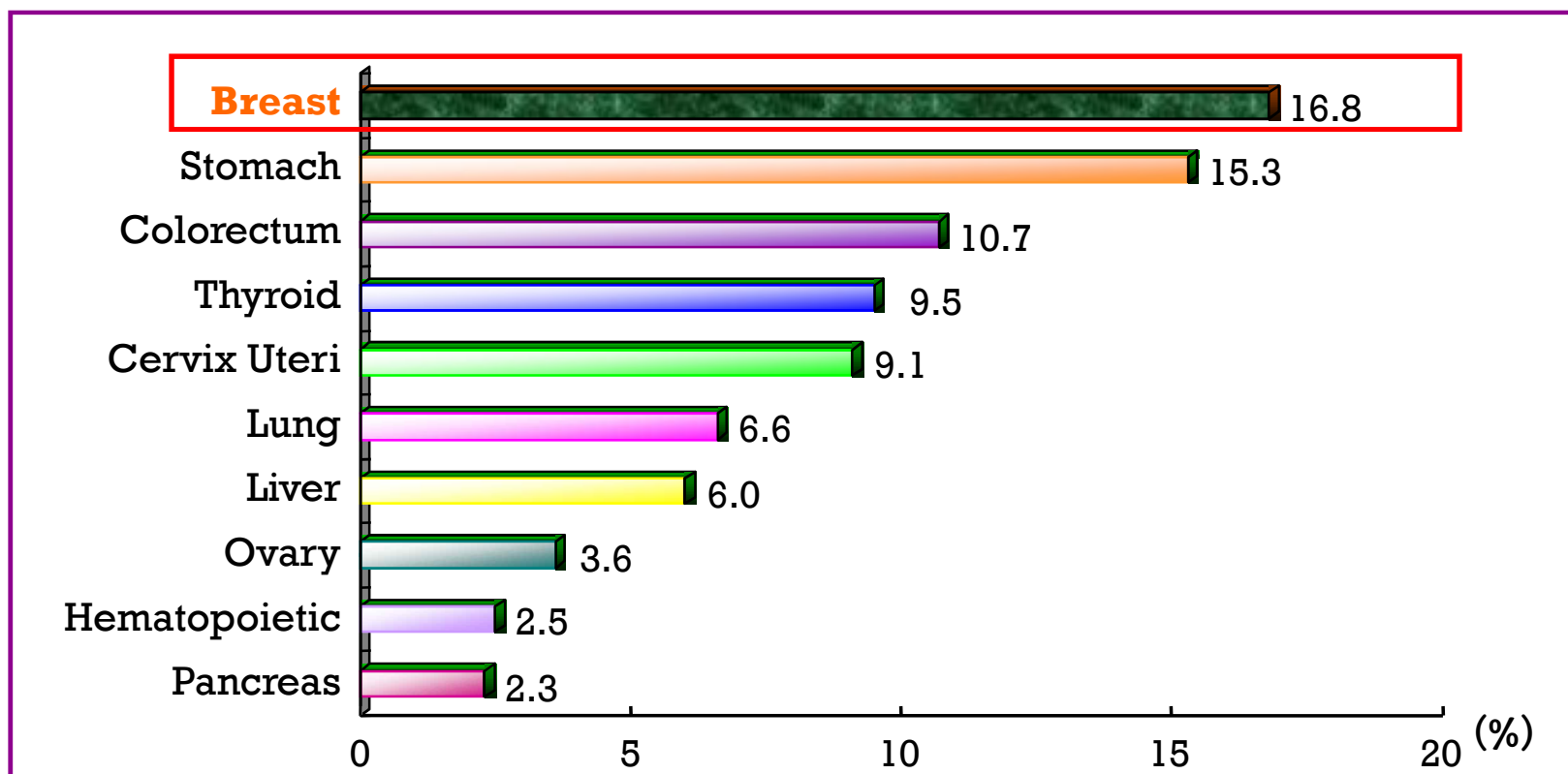
Ten Leading Primary Cancer in Korean men (2002. 1. - 2002. 12.)

Male: 55,398 cases (55.9%)

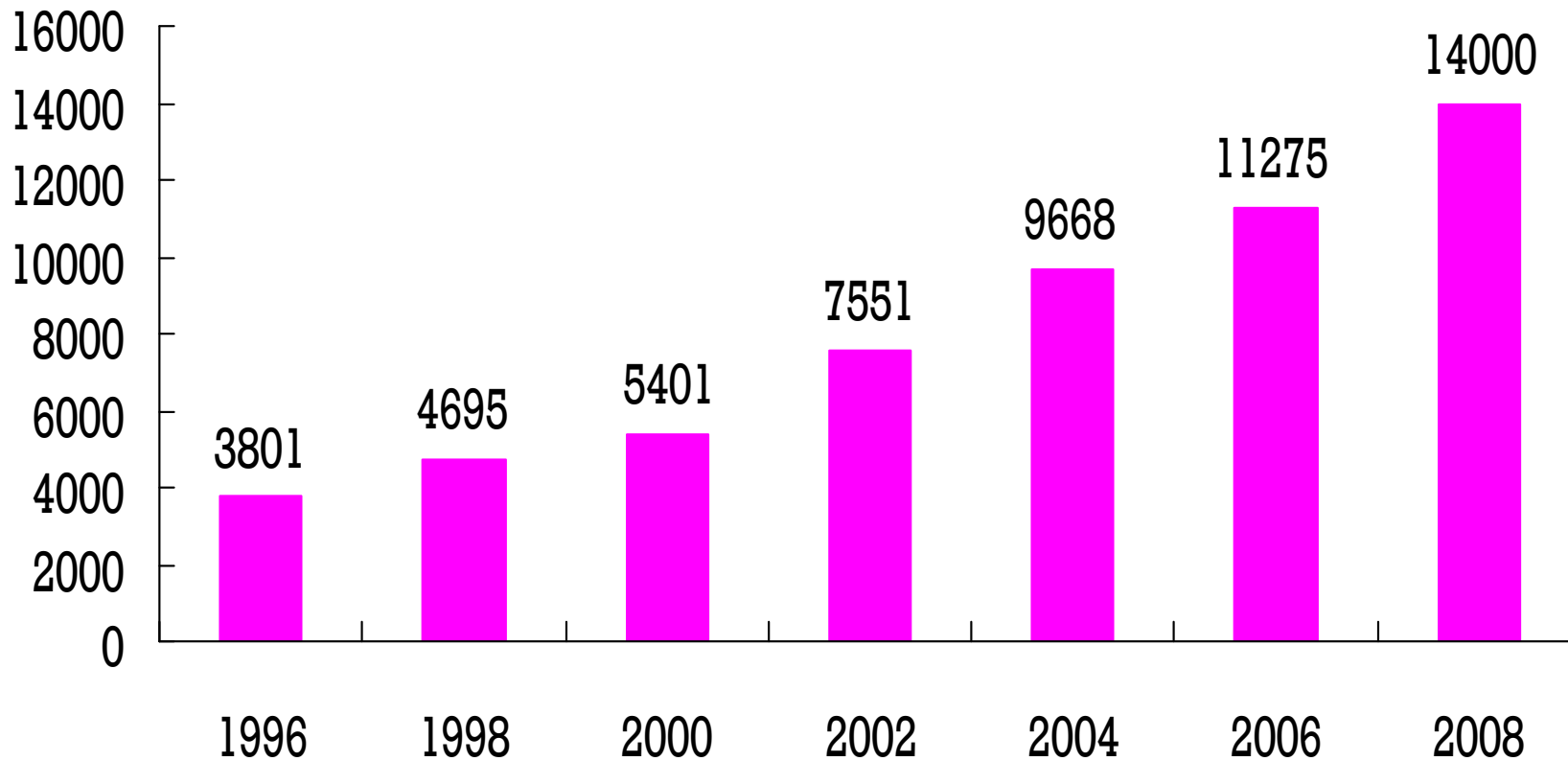


Ten Leading Primary Cancer in Korean Women (2002. 1. - 2002. 12.)

Female : 43,627 cases (44.1%)

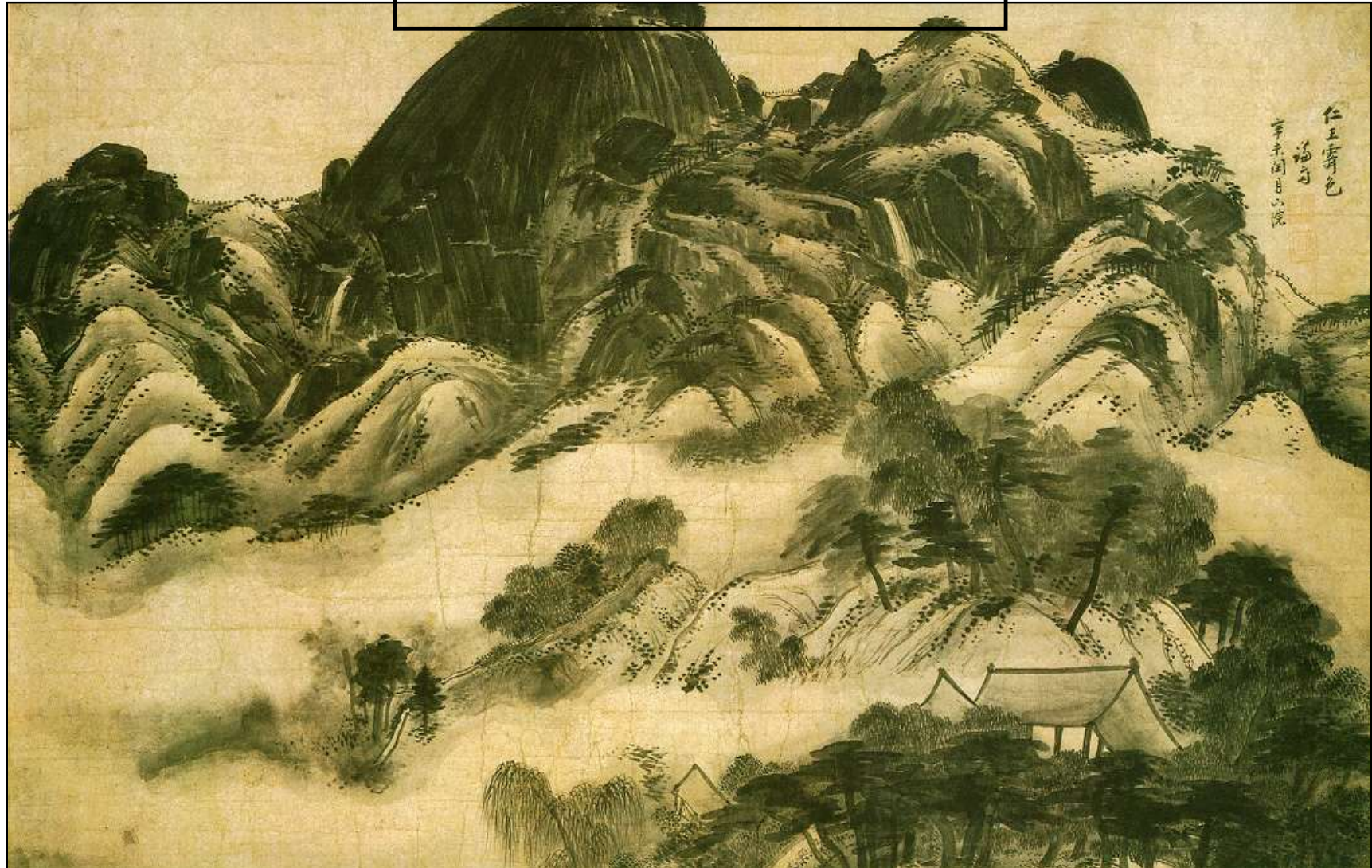


Biennial Number of Breast Cancer in Korea



- Annual number of breast cancer was 3801 cases in 1996 and 14000 cases of breast cancer were newly diagnosed in 2008.

Risk Factor



Proportion of patients by risk factors.

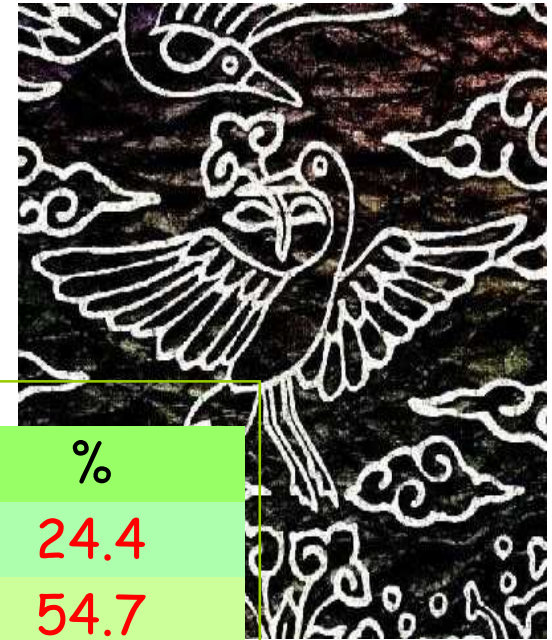
Risk factor (%)	1996	1998	2000	2002	2004	2006
Early menarche (<13)	8.0	7.7	11.8	13.2	12.8	15.1
Late menopause(>55)	6.5	10.2	11.7	8.4	9.1	11.4
Late first-delivery(>30)	11.1	10.2	12.3	12.3	16.1	14.6
More three children	9.0	7.0	7.9	3.5	3.6	2.0
Unmarried	5.1	4.3	4.9	4.8	5.3	5.7
Milk feeding	21.2	17.8	20.7	24.8	25.7	26.6
Family history	3.2	5.0	4.8	6.1	7.5	7.6
Obesity(BMI>25)	21.7	22.5	25.8	26.1	29.9	29.5

- The high risk factors of breast cancer (early menarche, late menopause, Late first-delivery, Short duration of breast feeding, low physical activity) showed increasing tendency.

Clinical Characteristics



Clinical manifestations



Symptoms	%
No symptom, Detected on screening	24.4
Painless lump	54.7
Painful lump	6.9
Nipple discharge	4.0
Skin change, nipple retraction	1.4
Breast pain, discomfort	3.0
Axillary mass	1.8
Others	1.5
Total	100



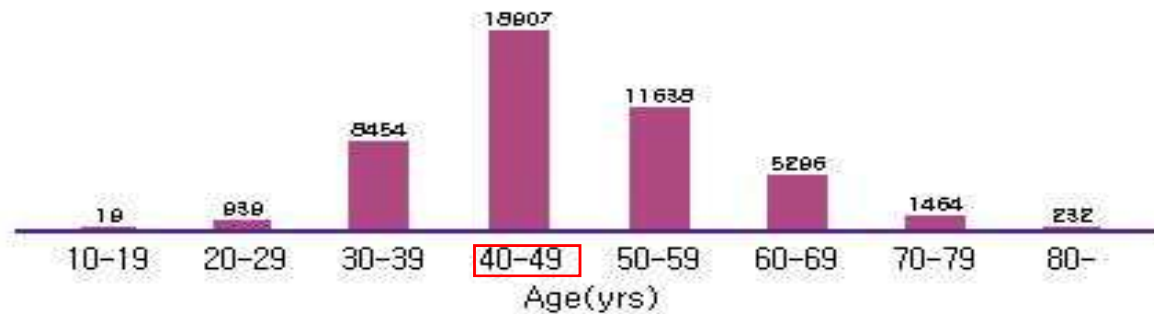
Change of Clinical manifestations

Symptoms(%)	1996	1998	2000	2002	2004	2006
Detect on screening without Sx(%).	6.4	8.7	8.9	12.4	17.8	24.4
Symptomatic Manifestation	93.6	91.3	91.1	87.6	82.2	75.6

- Screening mammogram is recommended after 40 years-old, annually (starting from 35 years-old for family history).
- Increased detection rate of breast cancer on screening was 6.4%(1996), 7.8%(2004), 24.4%(2006) respectively.



Age Distribution



	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-	Total
Female	19	933	8434	18865	11583	5231	1418	224	46707 (99,5 %)
Male	0	6	20	42	55	65	46	8	242 (0,5 %)
Total	19	939	8454	18907	11638	5296	1464	232	46949
%	0	2	18	40,3	24,8	11,3	3,1	0,5	100

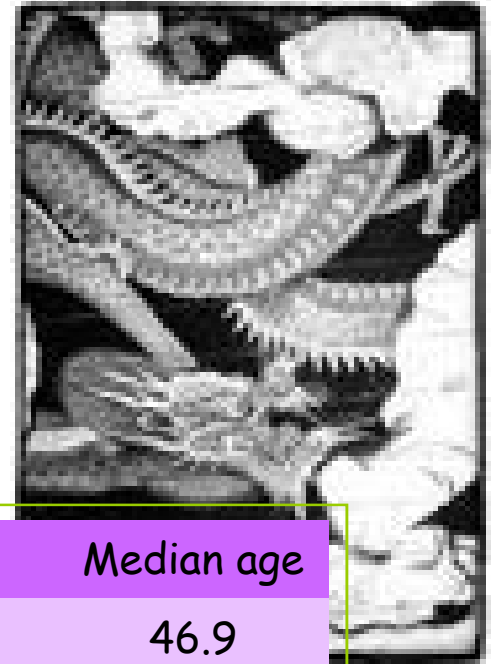
▶ Youngest 4

▶ Oldest 261

▶ Median 47

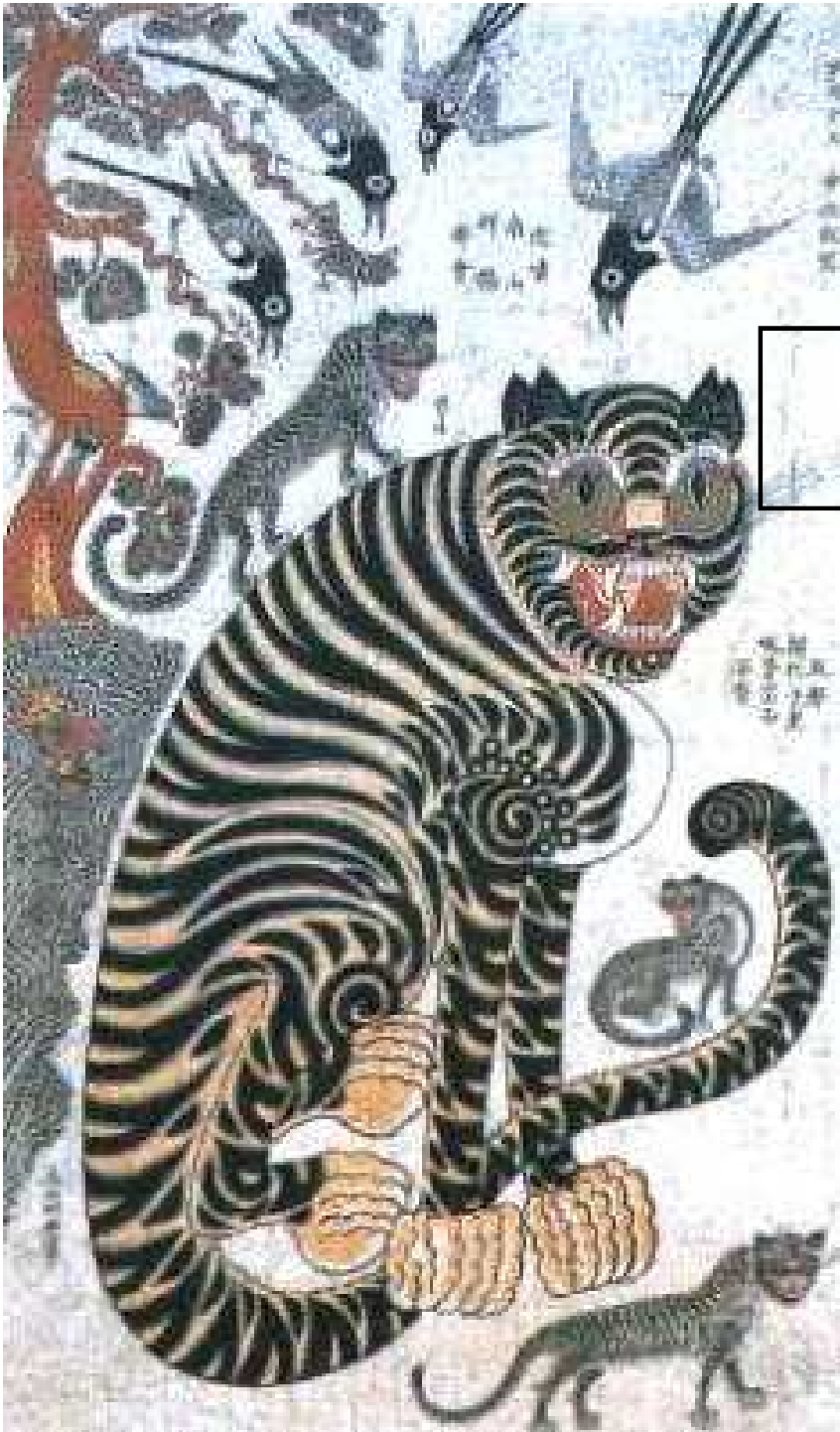
- The Age distribution of breast cancer peaked in the late fifth decade of life.
- Median age : 47-48 years old.

Proportion of premenopausal patients



Year	Premenopausal(<49,%)	Postmenopausal(>50, %)	Median age
1996	60.9	39.1	46.9
1998	61.3	38.7	47.0
2000	60.8	39.2	46.7
2002	59.4	40.6	47.1
2004	60.1	39.9	47.0

- The premenopausal patients were 60.1% in 2004 ,this is one of the typical characteristics of Asian breast cancer.



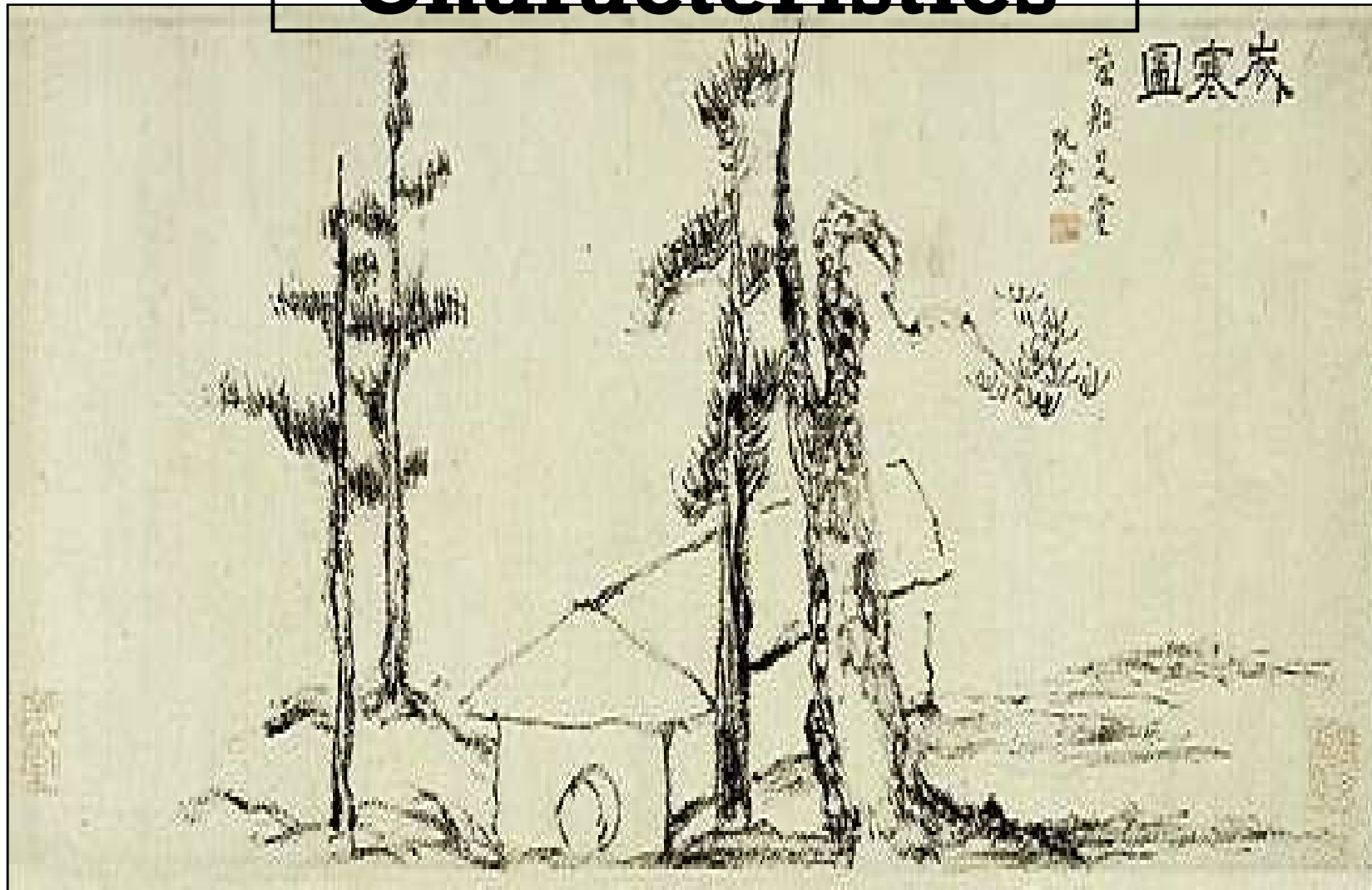
Diagnosis

Preoperative Confirmatory Diagnostic Methods

	%
FNA	26.7
Sono-guided core needle Bx	39.6
Excisional Bx	16.3
Frozen Bx	10.2
Incisional Bx	3.2
Wire localization Bx	1.8
Stereotatic Bx	0.2
Etc	2
Total	100

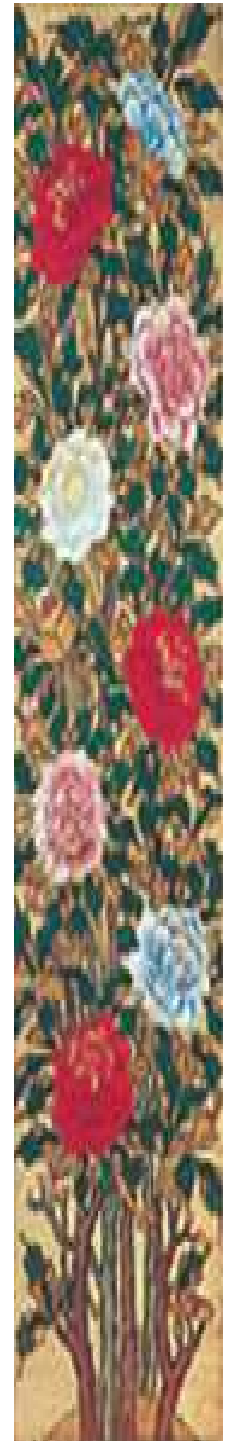


Pathologic Characteristics



1) Histologic type.

	%
DCIS	13.8
Invasive ductal ca.	81.9
LCIS	0.2
Invasive lobular ca.	2.6
Paget's disease (pure form)	0.2
Malignant phyllodes tumor	0.4
Lymphoma	0.0
Sarcoma	0.1
Others	0.8
Total	100



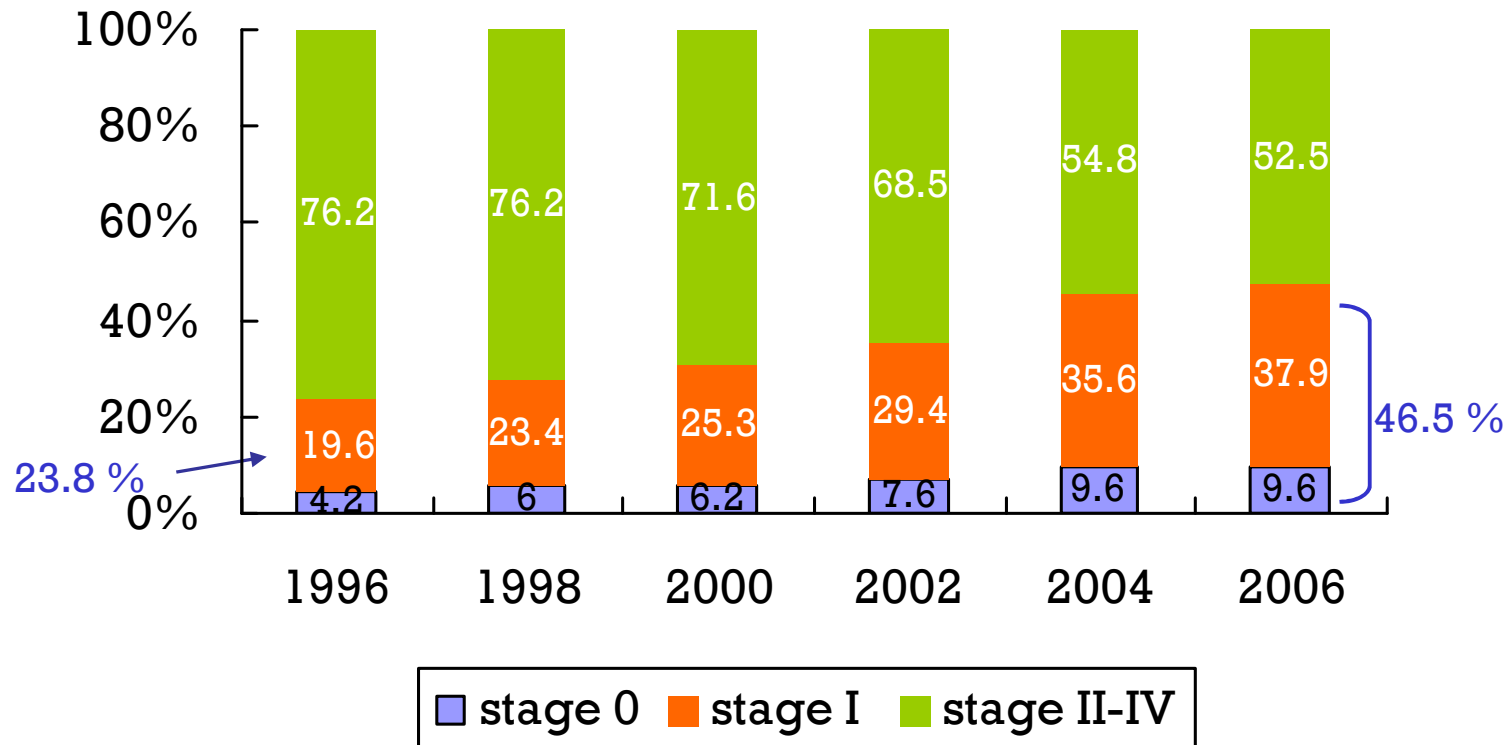


2) Biologic marker.

	Negative(%)	Positive(%)	Unknown(%)
ER	40.5	59	0.5
PR	45.3	54.2	0.5

	Negative(%)	Weak, 1+ (%)	Intermediate, 2+ (%)	Strong, 3+ (%)	Unknown
p53	55.5	20.2	8.3	15.1	0.8
c-erbB-2	42.3	18.6	16.2	22.2	0.7

Change of AJCC Staging (2002 system)



There is a strikingly increase in the proportion of early cancer (stage 0, I) from 23.8% (1996) to 46.5% (2006).

5) AJCC Staging.

Stage	0	I	IIA	IIB	IIIA	IIIB	IV	Others	Total
%	5.7	26.2	32	20.5	9.5	2.3	2.2	1.5	100

(~ 2002)

Stage	0	I	IIA	IIB	IIIA	IIIB	IIIC	IV	Others	Total
%	9.3	37.9	26.8	8.4	9	0.6	5.1	1.3	2.3	100

(After 2003)

- Since 2003 breast cancer is still most frequently diagnosed at stage I (about 37.9%) in Korea.
- Stage III and IV were 14.7% and 1.3% respectively according to AJCC 2002 system.



Operation

Change of Operation Methods

operation	%
Mastectomy(%)	74.4
BCS(%)	23.2
Biopsy, etc(%)	2.3

(~ 2002)

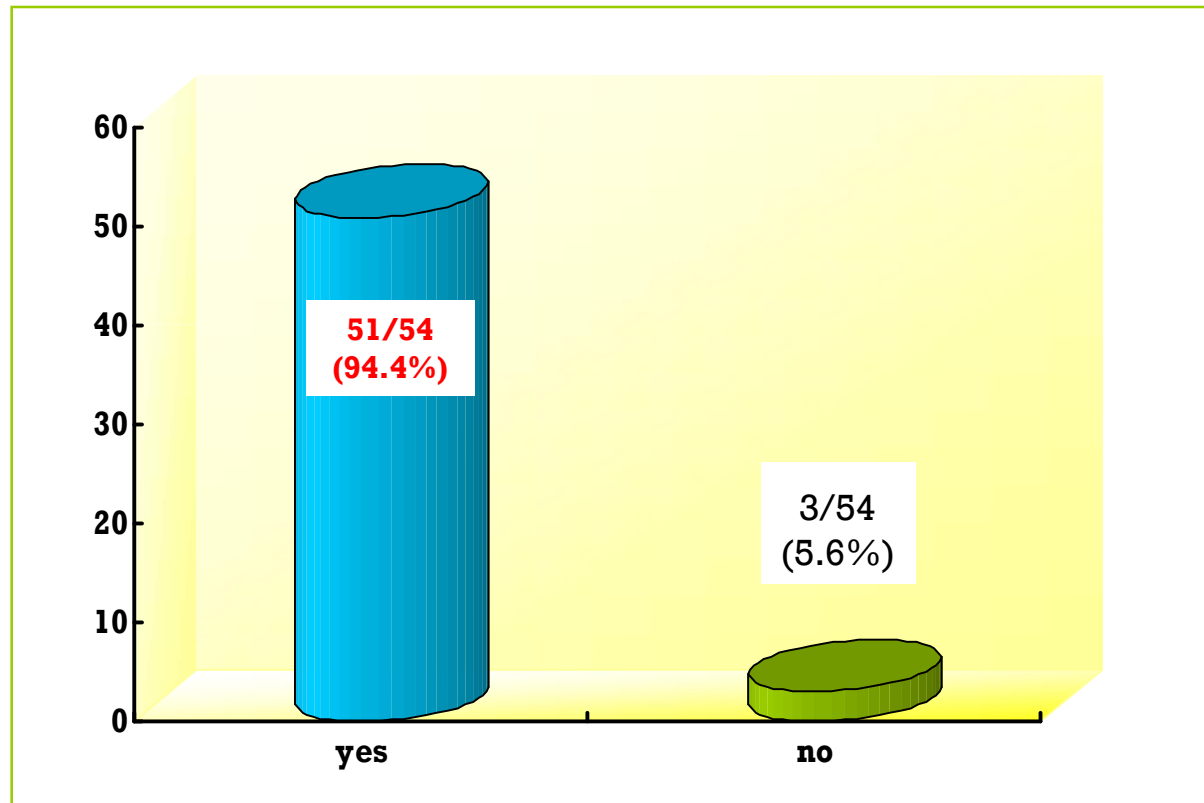


operation	%
Mastectomy(%)	48.9
BCS(%)	48.8
Biopsy, etc(%)	2.4

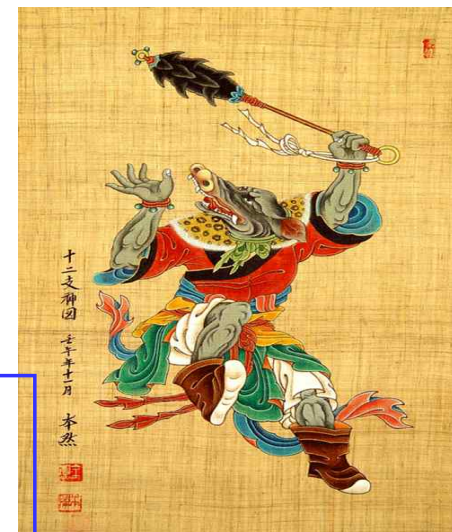
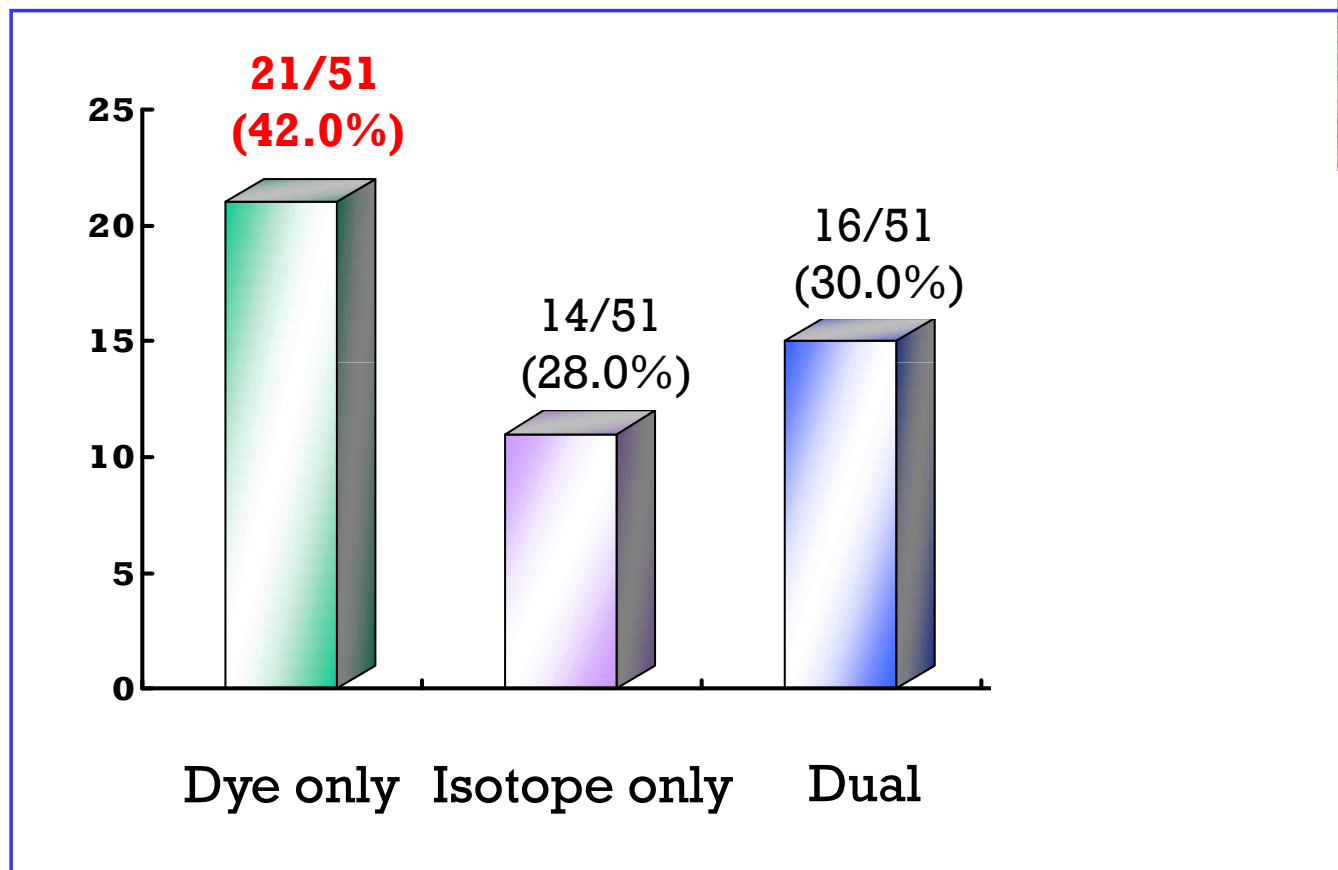
(2006)

- Modified radical mastectomy was performed most frequently, but it is decreasing tendency from 79.7% (1996) to 48.9% (2006)
- **BCT has been rapidly increasing** from 18.7% (1996) to 48.8% (2006)
- But recently BCS overcame MRM in big university hospitals.

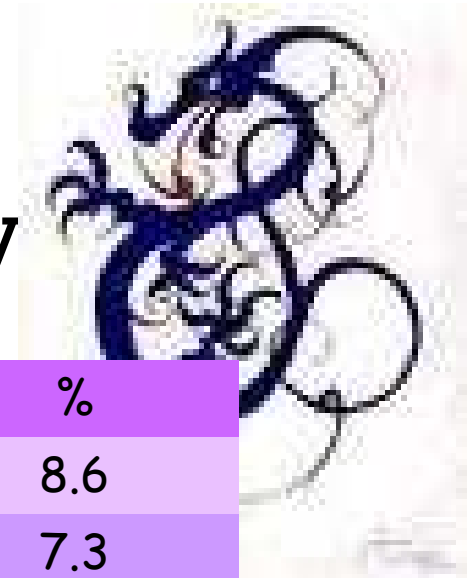
Application Tendency of SLNB in University Hospital in Korea(2006)



Detection Methods of SLNB



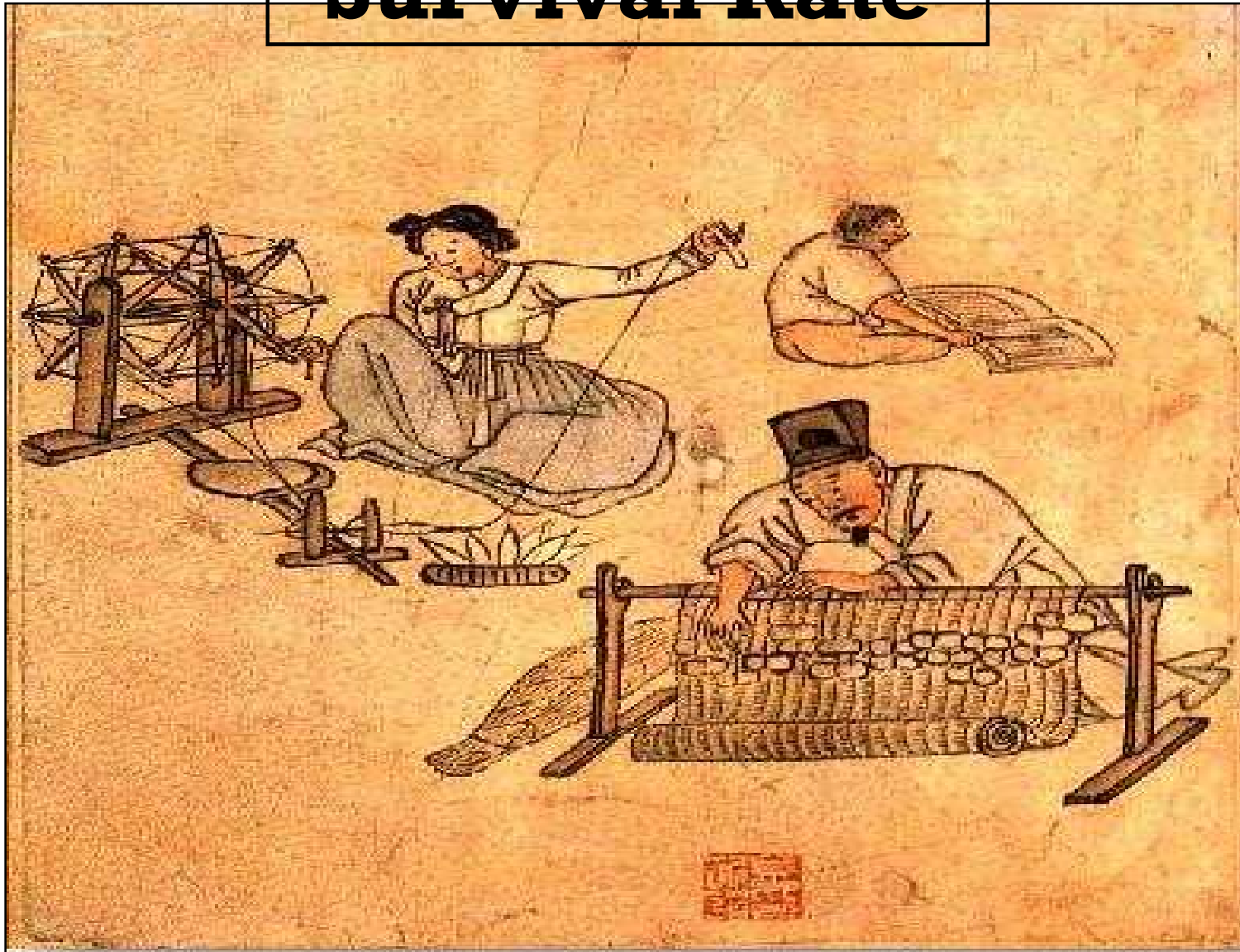
Reconstruction rate after mastectomy



Type	No.	%
Tissue expansion + implant	218	8.6
Direct implant	185	7.3
Latissimus Dorsi Myocutaneous Flap	888	35.1
Transversus Rectus Abdominis Myocutaneous Flap	836	33
Etc	405	16
Total	2532	100

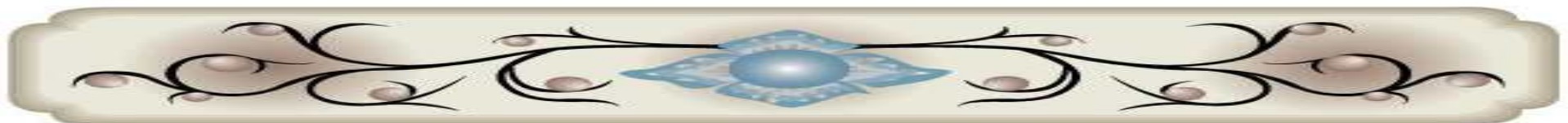
- Among total 46,667 cases, 29,909 patients were sampled.
- The rate of reconstruction after mastectomy was **8.5%** (2,532cases/29,909cases).

Survival Rate



5 years survival rate in Korea (comparison of 1st and 2nd 5 year-period)

	years	cases	%	1year	2years	3years	4years	5ears
Observed survival	1993-2002	46,355	100	96.5	91.6	87.0	83.2	80.3 (79.8-80.7)
	1993-1997	16,917	36.5	95.6	89.7	84.5	80.6	77.6 (76.9-78.2)
	1998-2002	29,438	63.5	97.0	92.8	88.7	85.2	82.6 (82.0-83.2)
Breast cancer Specific survival	1993-2002	45,663	100.0	96.8	92.2	88.0	84.5	81.8 (81.4-82.2)
	1993-1997	16,541	36.2	95.9	90.4	85.6	82.0	79.3 (78.6-79.9)
	1998-2002	29,122	63.8	97.2	93.3	89.6	86.3	84.0 (83.4-84.6)



International comparison of 5-year survival from population-based cancer registries.

Nation	USA	Korea	Korea
Organization	NCI	KBCS & KCCR	KBCS & KCCR
Period	1995~2001	1993~2002	1998~2002
last F/U	2002	2003	2003
No. of cases	107,748	46,355	29,438
All stage(invasive)	87.0%	80.3%	84.0%
Localized	97.9%	94.5%	94.8%
Regional	81.3%	78.8%	79.7%
Distant	26.1%	28.2%	27.7%
Stage Unknown	55.6%	75.5%	77.3%
Breast ca (in situ)	100%	99%	99%

- 1975-2002. SEER(surveillance, epidemiology & end results)
- Breast carcinoma survival in Europe and the United States Cancer. Volume 100, Issue 4, Date: 15 February 2004, Pages: 715-722

Summary-1

1. **Breast cancer is the most common female cancer in Korea since 2001.**
2. **The incidence of breast cancer has been increasing, probably due to the change of life-styles (**westernization: high fat and high calorie diet, low birth -rate, low physical activity, high BMI, short breast feeding and HRT**)**
3. **The most common age group is the late fifth decade, but late 30's age group shows increasing tendency.**
4. **High proportion of premenopausal patients than that of western countries.**

Summary-2

5. **BCS and immediate reconstruction shows rapidly increasing tendency**
6. **5-year- observed survival rate was increased; 1st period and 2nd 5 year-period was 77.6% and 82.6 % (5% of survival rate was increased.)**
7. **The causes of increased survival rate derived from;**
 - **the increased **screening number.****
 - **the increased early breast cancers.**
 - **the improvement of treatment modalities.**
8. **5-year survival rate was similar to that of Japan and USA.**



Thank you !!

