



:
 : 2 가 362
 가 317 1 , 45 2
 : 가 1 51.4%, 2 33.3%,
 가 7.6%, 24.4% 가 (p<0.05), 1
 가 48.6%, 2 46.2%(p<0.05) , ACR-BIRADS 1
 5가 47.6%, 2 4가 51.1% (p<0.05) 가 .
 가
 1 (; 28-79, ; 48.1) 2 (; 30-73, ; 51.7)
 가 (p<0.05), 1 2 84.9%,
 62.2%, 8.5%, 28.9%(p<0.05) , 가 3.01cm, 1.93cm
 (p<0.05), 47.9%, 28.2%(p<0.05) 가
 1 2 가 53.7%, 2 1 가 31.1% (p<0.05)

:
 가 ,
 , , 가

가 가 가 471
 가 가 가 362
 가 362 가 317 1 ,
 (n=5), (n=8) ,
 (n=32), 45 2
 (4-6) , 28 79 48
 (1). 302 , 60
 가

1996 1 1997 12 ,

ACR-BIRADS™(American College of Radiology Breast
 Imaging Reporting and Data System) (7)

1998 12 29 1999 5 26

, , (lobular), (irregular)

(circumscribed), (microlobulated), 2.2% (1/45), 가 11.1% (5/45),
 (obscured), (indistinct), 가 (p=0.01).
 (spiculated) 1: (negative), 가
 2: (benign), 3: 가 (probably benign), 가 76%, 가 32.8%, 2
 4: (suspicious abnormality), 5: 57.7%, 51% 2 가
 (highly suggestive of malignancy) (p=0.010).

((2cm; p=0.017, 2<(5cm; p=0.030). 1
 ((2cm; 76.9%, 2<(5cm; 73.2%) 가
 t-test () Chi-square 2 가 ((2cm; 53.4%,
 2<(5cm; 49.7%) 가
 2 11.1% (n=5) 1
 9.2% (n=29)

ACR-BIRAD™
 1 28 79 48.1 3 (6.9%) 5 (47.6%), 4 (36.3%),
 , 2 30 73 51.7 2 (51.1%), 5 (28.9%), 3 (8.9%)
 가 (p<0.05).
 (p=0.0470).
 (Table 1,2) (n=267)
 1 가 (Table 2), 1
 51.4% (163/317), 가 24.6% (78/317), (48.1%) (35.3%) 가 , 2
 가 7.6% (21/317), 가 (46.2%), (23.1%) (19.2%)
 6.6% (21/317), 가 (p=0.025).
 0.6% (2/317), 가 9.2% (29/317) , 2 , 1 44.8%, 29.0%,
 가 33.3% (15/45), 가 16.6% 2
 24.4% (11/45), 가 24.4% (11/45), 가 38.5% , 19.2% ,
 가 4.4% (2/45), 가 (p=0.455).

Table 1. Radiologic Differences between Palpable and Non-palpable Breast Cancer

	Group I (n= 317)*		Group II (n= 45)‡		P-value
	N‡	%	N‡	%	
Mammographic presentation					
1. Mass	163	51.4	15	33.3	0.010
2. Mass with calcification	78	24.6	11	24.4	
3. Calcification alone	24	7.6	11	24.4	
4. Asymmetric density	21	6.6	2	4.4	
5. Asymmetric density With calcification	2	0.6	1	2.2	
6. Negative	29	9.2	5	11.1	
Category(ACR-BIRADS™)	29	9.2	5	11.1	0.047
1. Normal	0	0	0	0	
2. Benign	22	6.9	4	8.9	
3. Probable benign	115	36.3	23	51.1	
4. Suspicious abnormalities	151	47.6	13	28.9	
5. Malignant					

* Group I; palpable cancer

‡ Group II; non-palpable cancer

‡N; number

IIA(29.7%), IIB(24.0%)
 2 1
 07 28.9%
 가 1 3.01cm(0.1-11cm), 2 31.1% 가
 1.93cm(0.3-9.0cm), 1 가
 (p<0.001). 2 9cm 가 (p=0.001).
 (Table 3)
 352 1 313 (8), 가
 150 가 (47.9%), 2
 39 11 가 (28.2%)
 가 (p=0.026). ((2cm,
 2< (5cm, >5cm), 가 , 가 ,
 가 (p=0.17, 0.266, 1.0). (1-3).
 (Table 4)
 1,2 83.9%, (9-11),
 62.2% 가 , 8.5%, 28.9%
 가 (p<0.001). (1,3,12). Silverstein (1) 1640
 560 62 10
 (Table 5)
 TMN system 1 (Breast cancer-specific survival),
 (overall survival)

Table 2. Radiologic Difference between Palpable and Non-palpable Breast Cancer in Mass Presentation on Mammographic Finding

	Group I (n=241)*		Group II (n=26)*		P-value
	N#	%	N#	%	
Shape					
1. Round	85	35.3	12	46.2	0.025
2. Oval	15	6.2	5	19.2	
3. Lobular	25	10.4	3	11.5	
4. Irregular	116	48.1	6	23.1	
Margin					
1. Circumscribed	4	1.7	1	3.8	0.455
2. Microlobulated	40	16.6	5	19.2	
3. Obscured	19	7.9	0	0.0	
4. Indistinct	70	29.0	10	38.5	
5. Spiculated	108	44.8	10	38.5	

* Group I; palpable cancer

Group II; non-palpable cancer

#N; number

Table 3. Difference of Lymph Node Metastasis between Palpable Breast Cancer and Non-palpable Breast Cancer.

	Group I (n=313)*		Group II (n=39)*		P-value
	N#	%	N#	%	
2cm	49/118	41.5	6/24	25.0	0.173
2cm< 5cm	90/167	58.9	5/14	35.7	0.266
> 5cm	11/28	39.3	0/1	0	0
Total	150/313	47.9	11/39	28.2	0.026

* Group I; palpable cancer

Group II; non-palpable cancer

#N; number

(p<0.001) . (13).

Sickles(4,5) 300 가 , (cellularity)

(desmoplastic reaction)

(17-19),

Ciatto (13)

512 가

(positive predic-

tive value)

(stellate)

Silverstein (1)

2320 50 1181

(200/1181)

64%(127/200) , (45%, 162/361)

(p<0.0001)

가 50 (7/22, 31.8%)

(6/23, 26.1%)

2 (

(51%)가 (57.7%)

ACR-BI-

가 RADS™(7)

5 4 가 (

4 : 36.3% in Group I, 51.1% in Group II, p<0.05),

가

Table 4. Histologic Difference between Palpable Breast Cancer and Non-palpable Breast Cancer

Histology	Group I (n= 317)*		Group II (n= 45)‡		P-value
	N‡	%	N‡	%	
Infiltrative ductal carcinoma	269	84.9	28	62.2	< 0.001
Ductal carcinoma in situ	27	8.5	13	28.9	
Medullary carcinoma	9	2.8	0	0.0	
Rare carcinoma §	5	1.6	1	2.2	
Mucinous carcinoma	4	1.3	0	0.0	
Infiltrative lobular carcinoma	3	1.0	3	6.6	

* Group I; palpable cancer

‡ Group II; non-palpable cancer

‡N; number

§ rare carcinoma (signet ring cell carcinoma, invasive papillary carcinoma, metaplastic carcinoma, squamous cell carcinoma)

Table 5. Staging Difference between Palpable Breast Cancer and Non-palpable Breast Cancer

Stage	Group I (n= 317)*		Group II (n= 45)‡		P-value
	N‡	%	N‡	%	
0	27	8.5	13	28.9	0.001
I	64	20.2	14	31.1	
IIA	94	29.7	9	20.2	
IIB	76	24.0	5	11.1	
IIIA	38	12.0	4	8.9	
IIIB	16	5.0	0	0.0	
IV	2	0.6	0	0.0	

* Group I; palpable cancer

‡ Group II; non-palpable cancer

‡N; number

Comparison between Palpable and Nonpalpable Breast Cancers : Mammographic and Pathological Findings¹

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Purpose : To analyze the differences in mammographic and pathologic findings between palpable and non-palpable breast carcinoma.

Materials and Methods : Among 362 patients with surgically proven breast carcinoma, 317, whose chief complaint during preoperative evaluation was a palpable mass, Comprised group I, and 45 with no masses comprised group II. We compared mammographic and pathologic findings between the two groups.

Results : As regards the pattern of mammographic presentation, mass alone accounted for 51.4 % of group I and 33.3 % of group II, while calcification alone was seen in 7.6 % of group I and 24.4 % of group II ($p < 0.05$). In group I, 48.6 % of masses were of irregular shape, and in group II, 46.2 % were round. According to ACR-BIRADS, 47.6 % of group I was classified as category 5, and 51.1 % of group II as category 4 ($p < 0.05$). On the other hand, the margin of the mass showed no statistical difference. Among the 362 patients, the mean age of group I was 48.1 (range, 28 - 79) years, while that of group II was 51.7 (range, 30 - 73) years ($p < 0.05$). Histologically, infiltrative ductal carcinoma was seen in 84.9 % of group I, and DCIS in 8.5 %, while for group II the respective figures were 62.2 % and 28.9 % ($p < 0.05$). For group I, mean lesional size was 3.01cm, with 47.9 % lymph node metastasis in the axilla, while for group II the corresponding figures were 1.93 cm ($p < 0.05$) and 28.2 % ($p < 0.05$). Differences were statistically significant. Under the TMN system, 30 % of group I were at stage II, while 35.6 % of group II were at stage I ($p < 0.05$).

Conclusion : Palpable and non-palpable cancers showed statistically significant differences in mammographic findings such as mass shape and category, but not in the margin of the mass. There were also statistically significant differences with regard to age, histology, lesion size, axillary lymph node metastasis, and staging.

Index words : Breast neoplasms, diagnosis
Breast neoplasms, radiography

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