SUNG KYUN KWAN UNIVERSITY

Scanxiety:
Controlling Fear of Cancer

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Origin

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A R T I

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Study on the relation between the PET-CT study and anxiety.

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	No.	Anxiety		Chi-square	p
		Yes	No		
Total	200	135 (67.5%)	65		
Number of times					
First	133	93 (70%)	40 (30%)	1.606	0.302
Successive	67	42 (62.7%)	25 (37.3%)		
Motive					
Initial staging	104	82 (79%)	22 (21%)	202.001	<0.001
Characterization	29	11 (38%)	18 (62%)		
Rule out recurrence	44	32 (72.7%)	12 (27.7%)		
Control	22	8 (36.36%)	14 (63.3%)		
Gender					
Men	98	83 (84.6%)	15 (14.4%)	25.895	<0.001
Women	102	52 (50.9%)	50 (25%)		

time of a follow-up imaging scan.

Conclusions: Routine surveillance scans exacerbate underlying anxiety symptoms and fear of recurrence in survivors of aggressive lymphoma. Strategies to minimize follow-up imaging and to improve doctor–patient communication should be prospectively evaluated to address these clinically significant issues.

Key words: anxiety, CT scans, lymphoma, survivor

'Scanxiety' countdown.....

adman

Posts: 216
Joined: Jul 2012

Jul 28, 2013 - 6:32 pm

Scans and bloodwork in a few weks, wish I could frickin' relax.

Login or register to post comments

mrs_blkjak

Posts: 48
Joined: Apr 2013

I understand. My husband has

Jul 28, 2013 - 8:17 pm

I understand. My husband has his scan tomorrow and results Tuesday. We are both anxious. I keep telling myself "worrying doesn't change what's going to happen," sometimes over and over. Wishing you great results and peace for your brain during the wait!

Login or register to post comments

Anxiety

Jul 28, 2013 - 9:01 pm

The irony is that Michael knows that he has far less to be worried about than just about anyone else on this forum, in fact really nothing at all, but that still isn't much help when anxiety takes hold, because the anxiety is basically irrational. The best thing is to get suitable counselling to handle the anxiety and

What is **Scanxiety**?

- Scan + Anxiety =Scanxiety
- Fear of what can be found from scan
  - If I have cancer?
  - Shrunk? Disappeared?
  - Recurrence?
- Pre-scan psychosis: stress patients suffer as they approach to having scan

Fear of Cancer Recurrence (FCR)

- High levels of FCR are very common, with 42-70% of survivors reporting clinically significant levels of FCR.
- FCR usually does not decrease over time even when risk of recurrence is low.
- Women with DCIS also most concerned about recurrence and metastasis
- FCR is the most unmet needs among breast cancer patients

1. Simard S:4th Canadian Breast Cancer Research Alliance Reasons for Hope Scientific Conference: Vancouver, Canada; 2008.
2. Thewes B: Support Care Canc2012,20(11):2651–265913. 3. Ghazali N:Psychooncology2012. doi:10.1002/pon.3114.

Scanxiety among DCIS patients

"Well have I got cancer or haven't I?"

"I am having a mastectomy for this pre-cancerous condition. Am I really overreacting here or what's going on?"

"I was never told you had cancer or it could spread, or anything. But I do always fear of recurrence and metastasis."

"The surgeon can't tell us a lot about what will be the long-term prognosis, its really hard for him to predict in 5 years time, or even in a years time."

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28 August 2002

ment in treatment decision-making and satisfaction with support services.

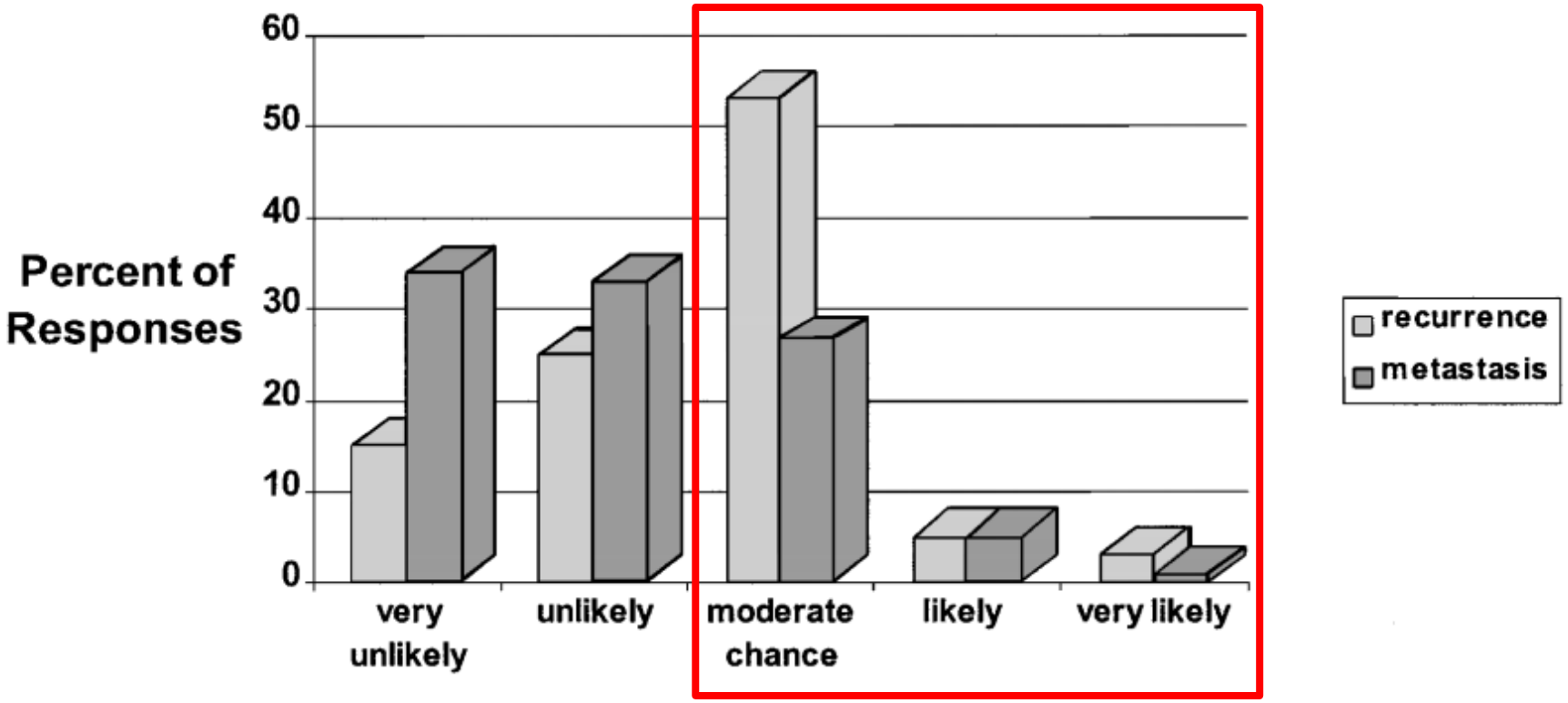


FIG. 2. Perceptions about breast cancer recurrence/metastasis.

Knowledge, Satisfaction, and Perceived Cancer Risk among Women Diagnosed with Ductal Carcinoma *In Situ*

TABLE 2. KNOWLEDGE DEFICITS

Statement	*% answering incorrectly*
DCIS is not always felt by breast examination.	12
There is only one treatment option available for women with DCIS.	17
If untreated, DCIS can become an invasive cancer in the breast.	17
Over time, DCIS will spread to other places in the body.	78
DCIS can always be seen on a mammogram.	46
Being diagnosed with DCIS increases the risk of developing breast cancer again in the future.	47
DCIS does not always form a breast lump.	30
DCIS is one of the most serious forms of cancer.	28
A woman who has had DCIS is more likely than other women with breast breast cancer to develop cancer in the other breast.	66
A woman who has had her breasts removed can still get breast cancer.	63

knowledge, satisfaction with care, risk perceptions, and psychological distress. Women with DCIS have knowledge deficits about DCIS and breast cancer, as well as concerns about re-

Issues with DCIS

- DCIS may be a difficult concept for patients to understand: non-invasive cancer
- Misperceptions about the severity of DCIS

- Worries and distress about recurrence and metastasis persists several years after diagnosis and completion of treatment.

Consequences of High FCR

- FCR is associated with poor quality of life and emotional well-being
  - higher mental and physical fatigue
  - higher depression and anxiety in cancer survivors.
- People with high FCR use more services or may avoid appropriate tests to identify recurrence in a timely fashion.
  - Waste of resources
  - Unnecessary delays

Table 4 Association of FCR with health behaviours

Variable	Unadjusted estimate[a] (95% CI)	*p*-value	Adjusted estimate[a, b] (95% CI)	*p*-value
Age at diagnosis	−1.0 (−1.8, −0.3)	.007		
Unscheduled visits to GP (yes/no)	13.0 (5.9, 20.2)	.0004	9.9 (2.3, 17.4)	.01
Unscheduled visits to oncologist (yes/no)	7.9 (−0.1, 15.8)	.05	3.9 (−4.8,12.5)	.4
Frequency of breast self-exams				
Daily	19.2 (−0.3, 38.7)	.01	12.5 (−7.6, 32.7)	.06
Weekly	12.6 (−1.4, 26.6)		7.8 (−6.2, 21.7)	
Monthly	0.4 (−12.2, 13.0)		−2.9 (−15.7, 10.0)	
A few times per year	−1.7 (−15.7,12.4)		−5.6 (−20.0, 8.7)	
Never	Ref		Ref	
Adherence to recommended self-exam schedule				
More often	13.5 (5.1, 21.9)	.002	11.4 (2.9,20.0)	.02
Less often	−1.5 (−9.6, 6.6)		−1.0 (−9.2, 7.2)	
Recommended	Ref		Ref	
Mammograms/ultrasounds				
One or more per year	−18.3 (−29.0, −7.6)	.0009	−18.2 (−29.1, −7.3)	.001
None	Ref		Ref	
Other screening practices (yes/no)	−8.6 (−1.2, 18.4)	.08	−10.9 (−20.7, −1.2)	.03
Other self-exam (yes/no)	15.4 (7.8, 23.1)	<.0001	13.7 (5.7, 21.6)	.0009
Current counselling	26.5 (12.9, 40.0)	.0002	19.4 (4.8, 33.9)	.009
Current support group	14.6 (3.8, 25.4)	.009	10.9 (0.2, 21.6)	.05
Current consumer group	0.6 (−7.7, 8.8)	.9	1.6 (−6.9, 10.0)	.7
CAM use (yes/no)	5.4 (−1.8, 12.5)	.1	3.4 (−4.2, 11.2)	.4
Total number of CAMs used	2.2 (0.6, 3.8)	.009	1.8 (0.2, 3.5)	.03
Per $100/year spent on CAMs	0.34 (0.09, 0.6)	.008	0.36 (0.1, 0.6)	.007

[a] Estimates are actual increase in FCRI score: for binary variables, this is the difference in those who responded "yes" versus "no"; for continuous variables, the estimate is the slope; for categorical variables, the difference from the reference category (marked as "Ref")

[b] Adjusted for age at diagnosis, stage, time since diagnosis, has children, education

Scanxiety among Korean DCIS patients

- To assess scanxiety, fear of recurrence, and quality of life in DCIS patients in Korea
- Cross-sectional survey
- Out-patients clinics at 2 major hospitals in Seoul
- Study population:
  - Stage 0 to 3 breast cancer patients
  - Who had at least 1 surveillance check-up (who finished the active treatment at least 1 year ago)

Measurements

Questionnaire	Contents
Experience of surveillance	-Difficulties, needs, unwillingness -Counseling experience
Scanxiety	-Fear related to surveillance
Fear of recurrence	-Fear of second cancer/recurrence/metastasis
HADS	-Anxiety & depression
Knowledge about DCIS	-Perception the risk -Knowledge about surveillance
WHOQOL	-Quality of life
Characteristics of clinical and socio demographic	-Stage, age, treatment, education, income, employment, etc

Pilot Results
Characteristics of participants (N=410)

- Study participants
  - Mean age: DCIS (52.3), Stage I&II (51.8)

DCIS (Stage 0)	Stage 1	Stage 2	Stage3
N=61(14.9%)	N=143(34.9%)	N=147(35.9%)	N=59 (14.4%)

- Average of time since surgery
  - Mean= 4.8 year (Range: 0.7~32.7)

Characteristics of participants

Characteristics	DCIS (n=61) N (%)	Stage 1~2 (n=290) N (%)	Stage 3 (n=59) N (%)	P-value
Age Mean (SD)	52.3 (11.0)	51.8 (9.5)	50.7 (8.7)	0.64
Marital status				0.47
Coupled	51 (83.6)	239 (82.4)	48 (81.4)	
Number of children				0.77
Mean (SD)	1.8 (1.1)	1.8 (0.9)	1.7 (0.8)	
Education				0.01
≥College	36 (59.0)	140 (48.3)	25 (42.4)	
Working status				0.38
Currently working	23 (37.7)	94 (32.4)	20 (33.9)	
Monthly family income				0.06
>$4000	23 (37.7)	91 (31.4)	16 (27.1)	
Religion				0.15
Yes	44 (72.1)	211 (72.8)	44 (74.6)	
Time since surgery(yr)				0.03
Mean (SD)	4.8 (4.0)	4.5 (3.8)	6.1 (5.9)	
Co-morbidity				0.02
Yes	37 (60.7)	123 (42.4)	21 (35.6)	

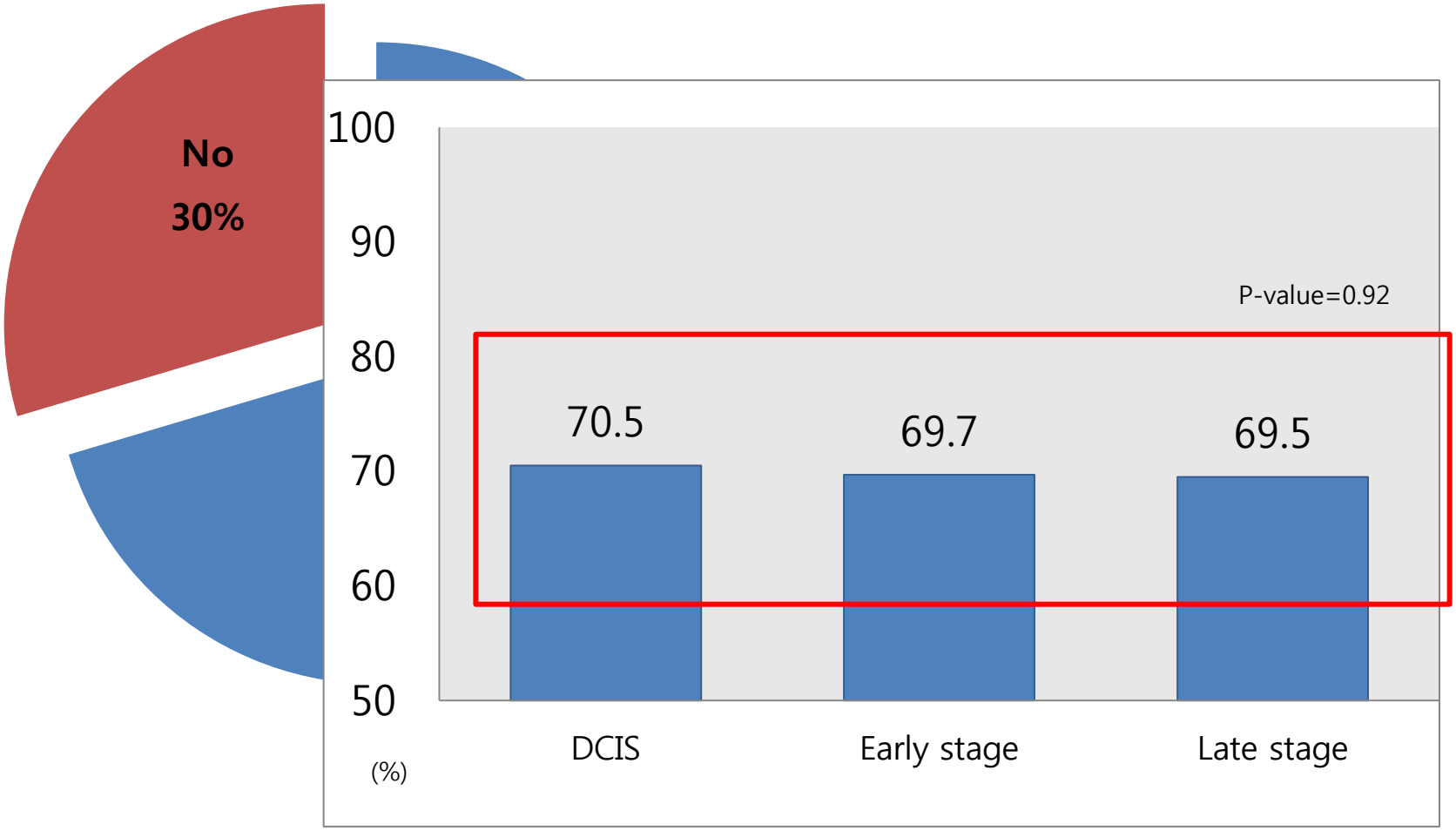
Most important tests

Rank	DCIS	Invasive
1	Breast sono (93.4%)	Breast sono (94.3%)
2	Mammography (86.4%)	Mammography (79.1%)
3	Blood tests (57.4%)	Blood tests (74.8%)
4	MRI (45.9%)	Bone scan (74.7%)
5	PET-CT(44.3%)	MRI (46.7%)

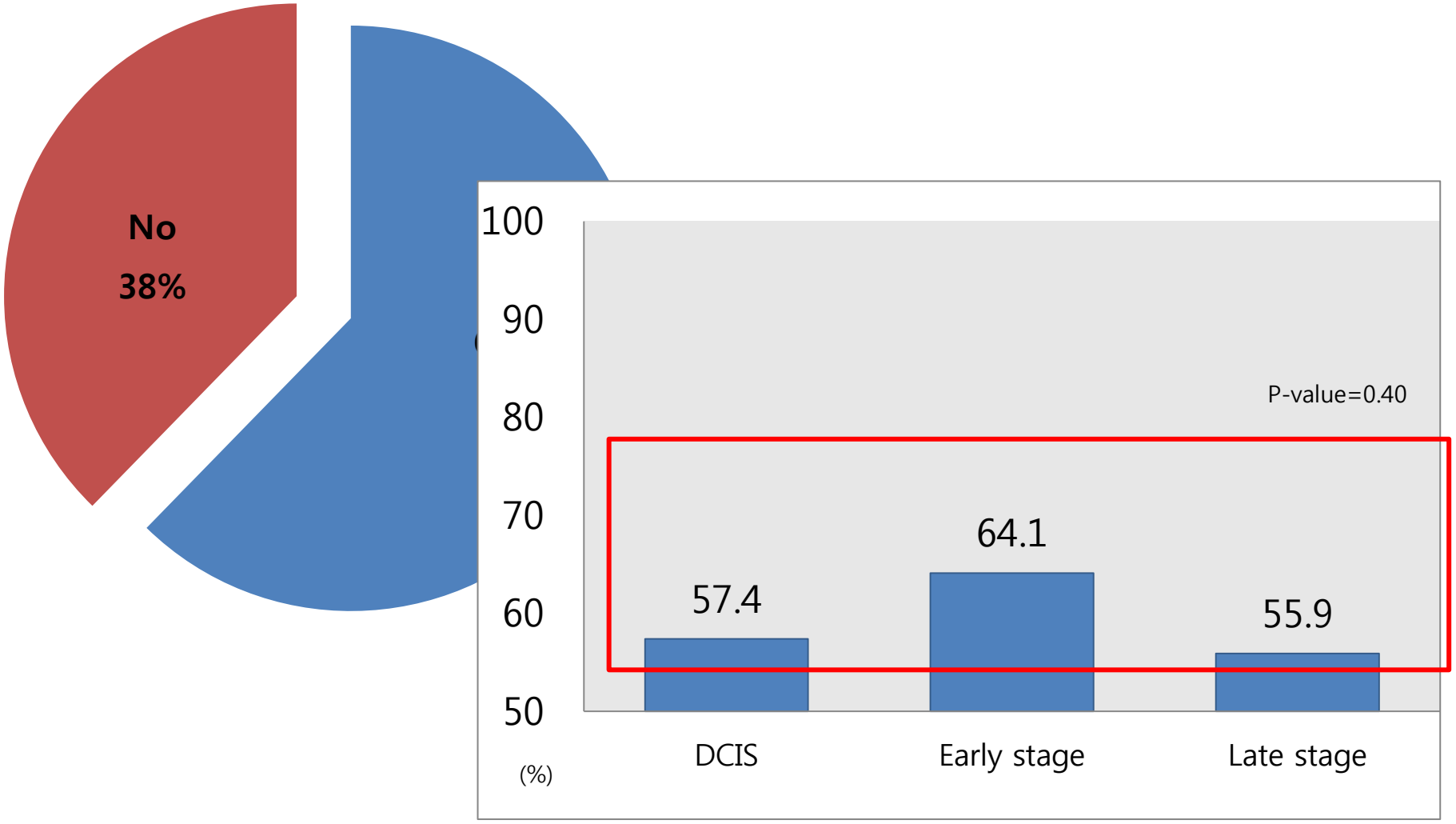
Most difficult/dislike tests

Rank	DCIS	Invasive
1	Mammography (32.8%)	Mammography (37.3%)
2	PET CT (22.9%)	Bone scan (31.2%)
3	MRI (18.0%)	PET CT (27.2%)
4	Bone scan (16.4%)	MRI (22.4%)

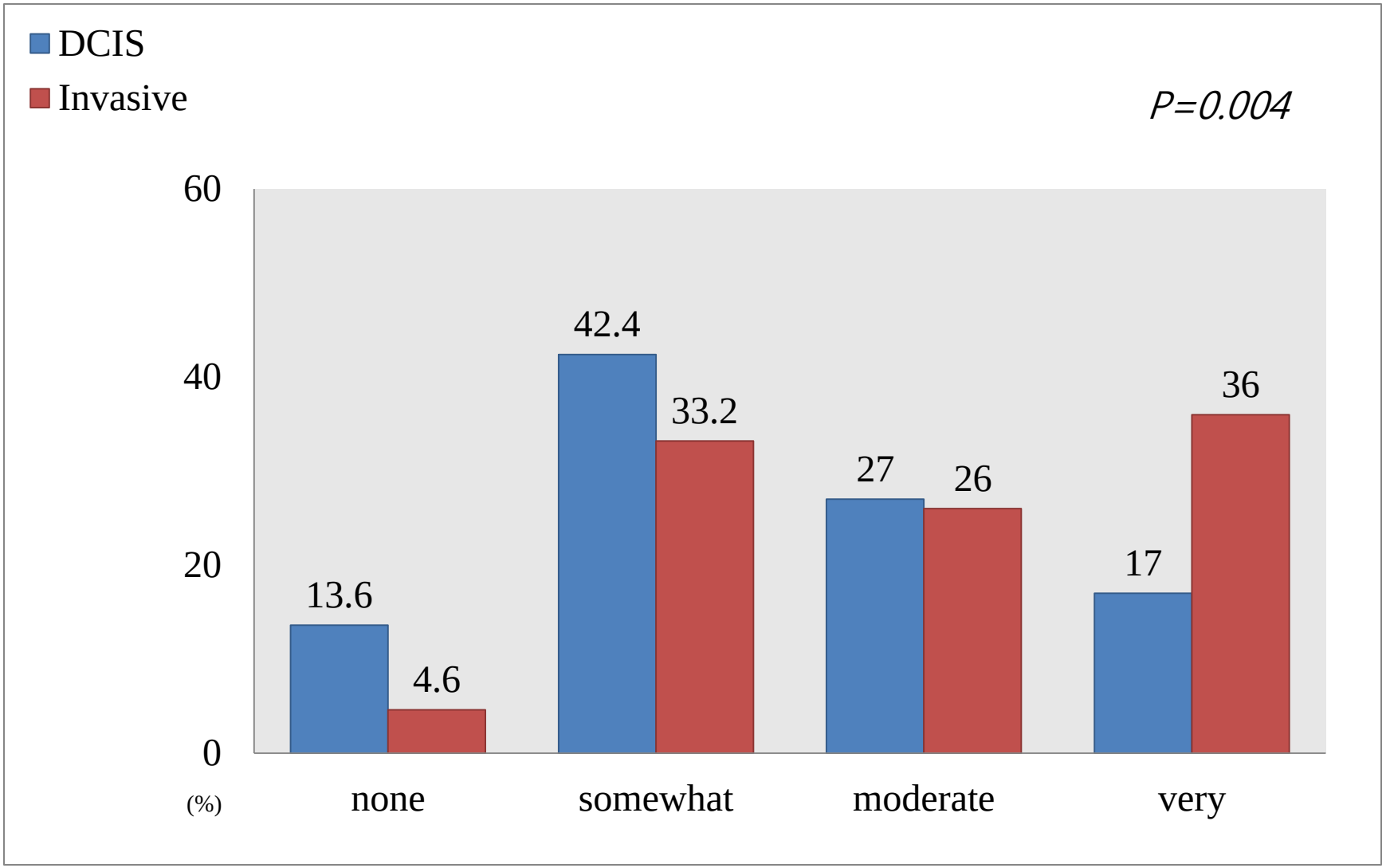
Having fear associated with surveillance (Scanxiety)



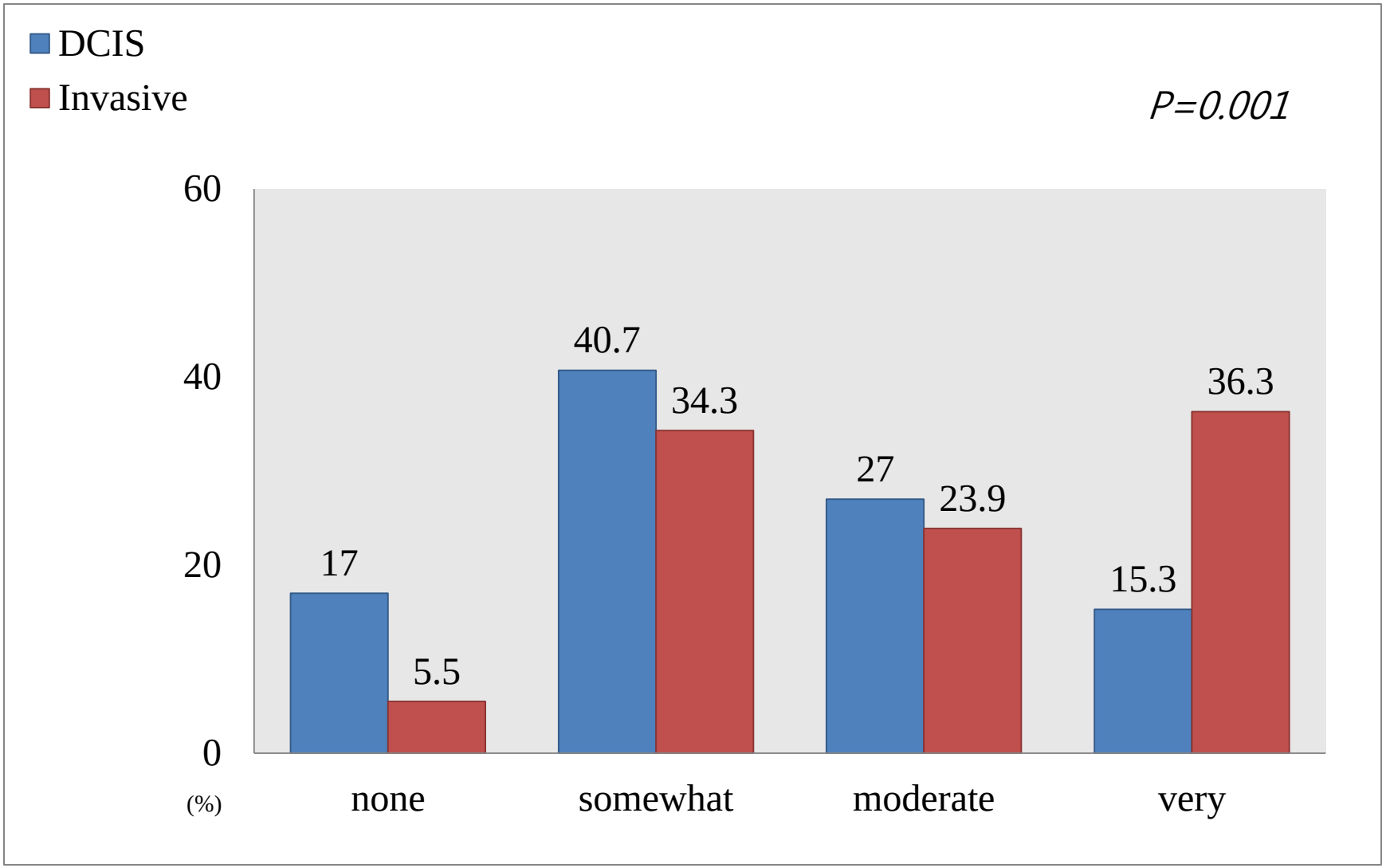
Worrying about next surveillance



Perceived risk of recurrence

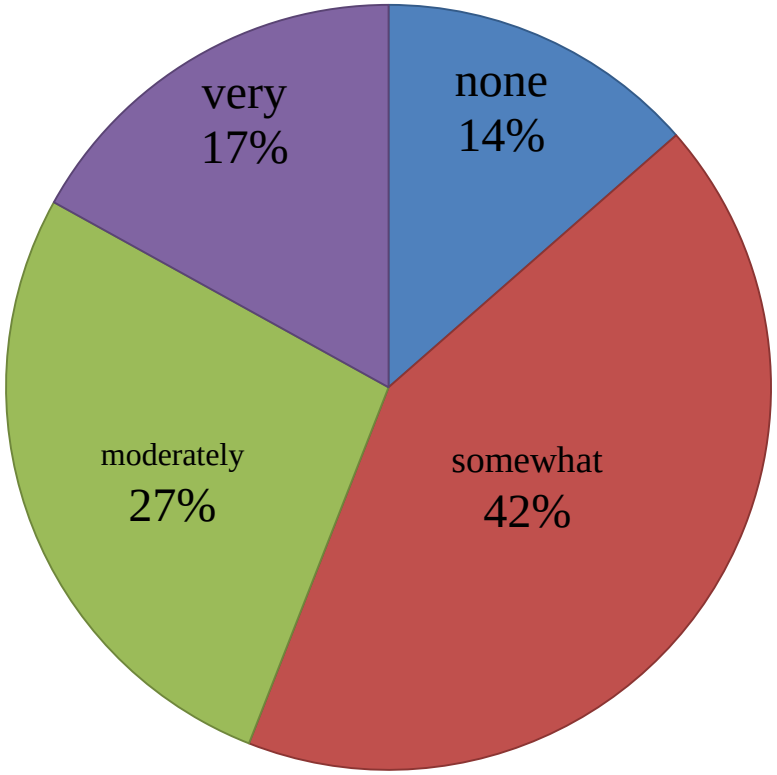


Perceived risk of metastasis



Fear of recurrence in DCIS

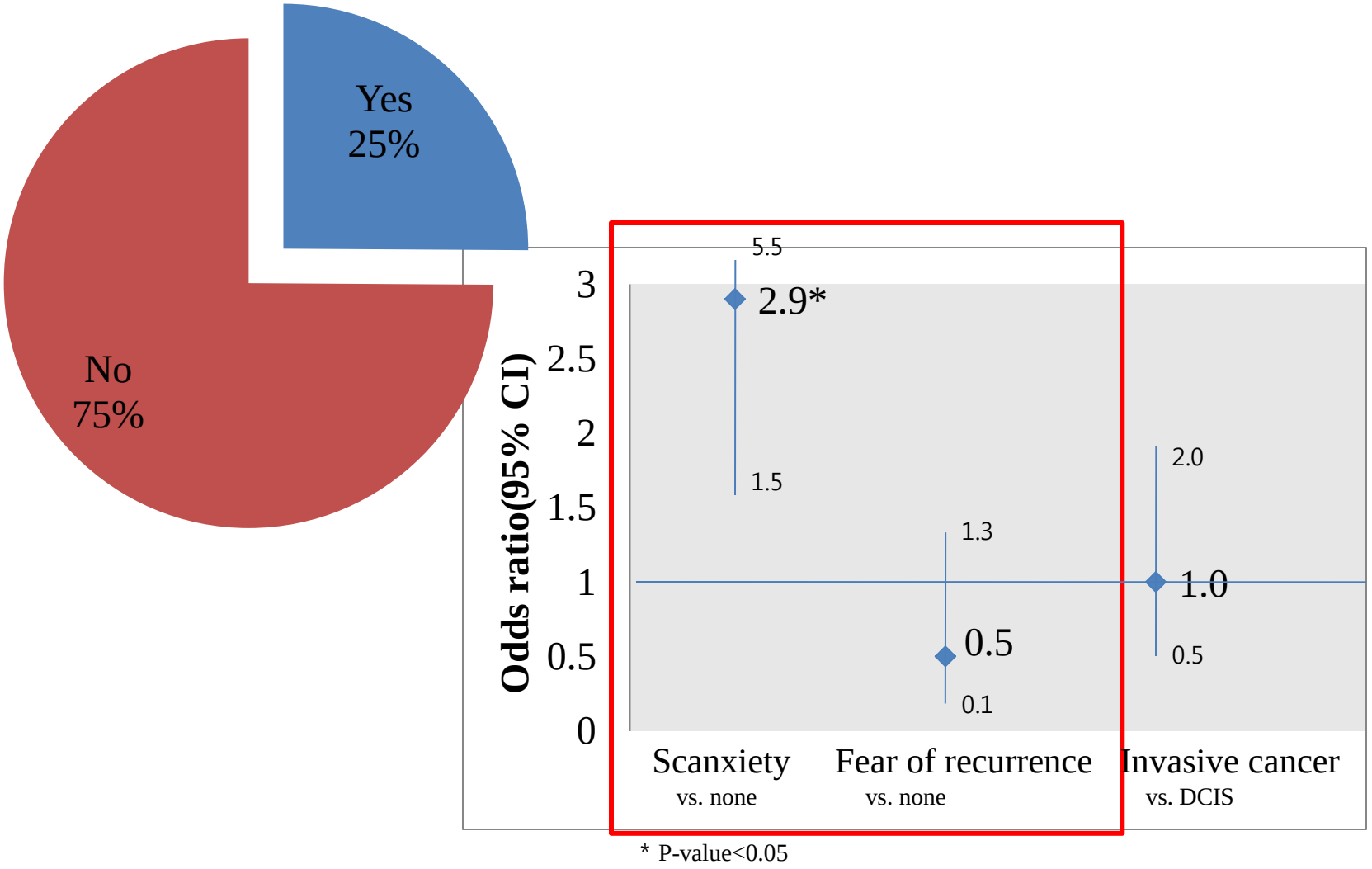
Concern about breast cancer recurrence (N=61)



Knowledge of DCIS

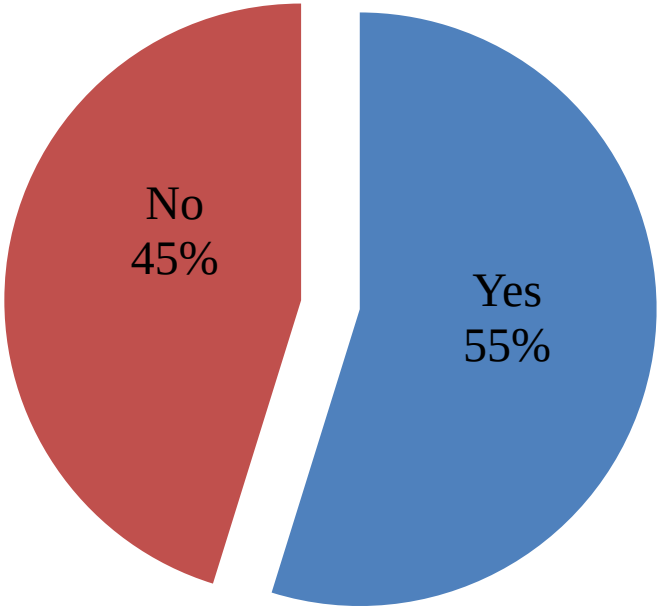
Statements	% of answering correctly
DCIS is one of the most serious forms of cancer (No)	70.5
DCIS can become an invasive breast cancer (Yes)	41.0
A woman who has had DCIS is more likely than other women with breast cancer to develop cancer in the other breast (No)	16.4
A woman who has had her breast removed can still get breast cancer (No)	27.9
Women with DCIS has to do regular check up as much as women with invasive breast cancer (No)	8.2
DCIS have the 1% of possibility that can become metastasis cancer (Yes)	36.1

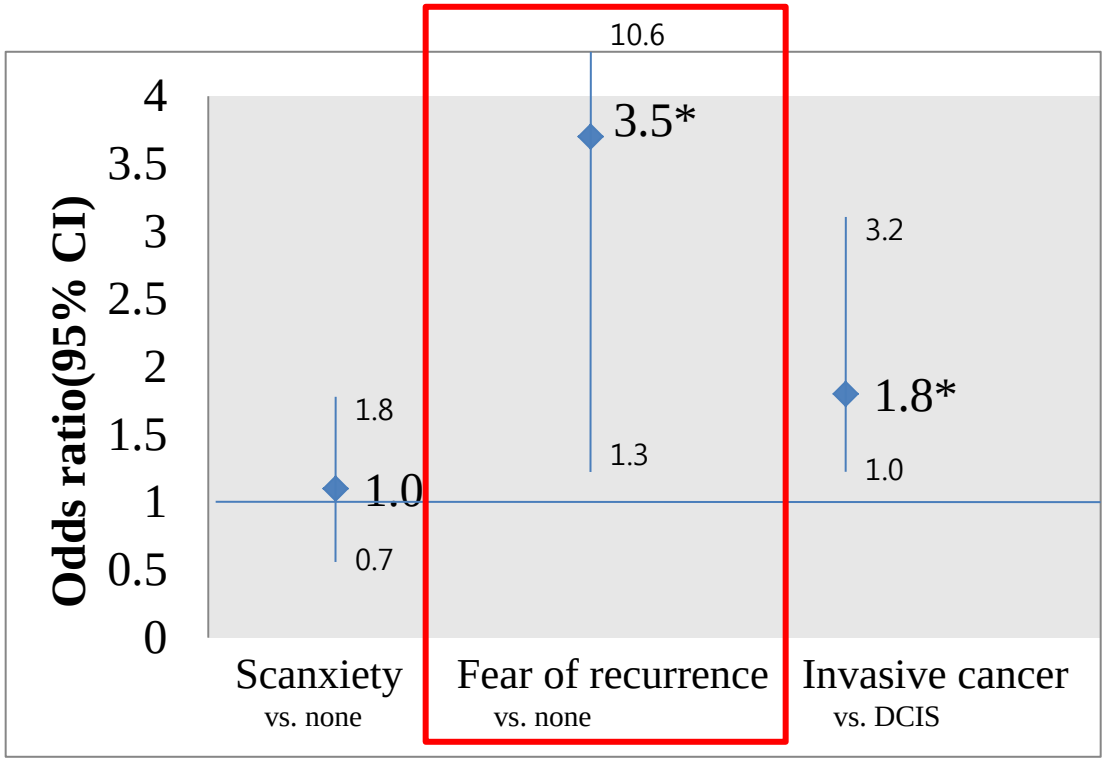
Would like to avoid cancer surveillance



* P-value<0.05

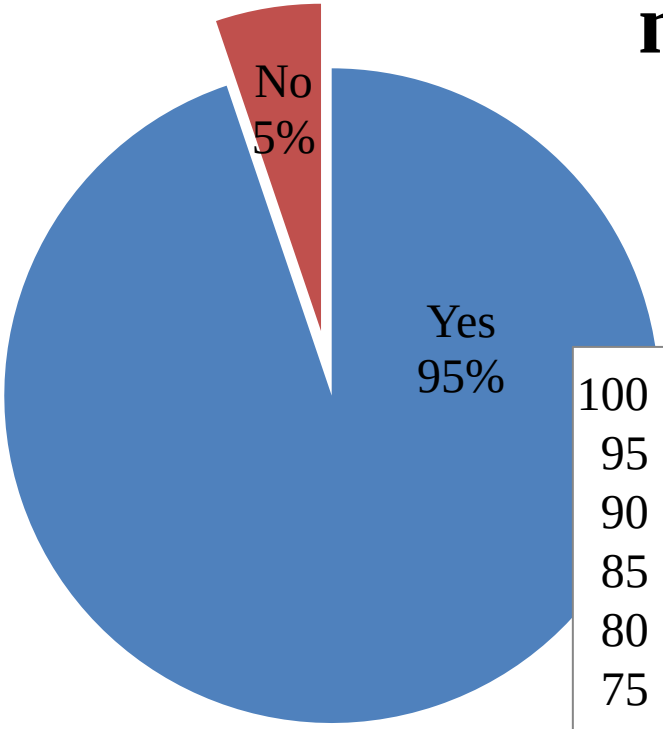
Willing to get more cancer surveillance even clinically not required

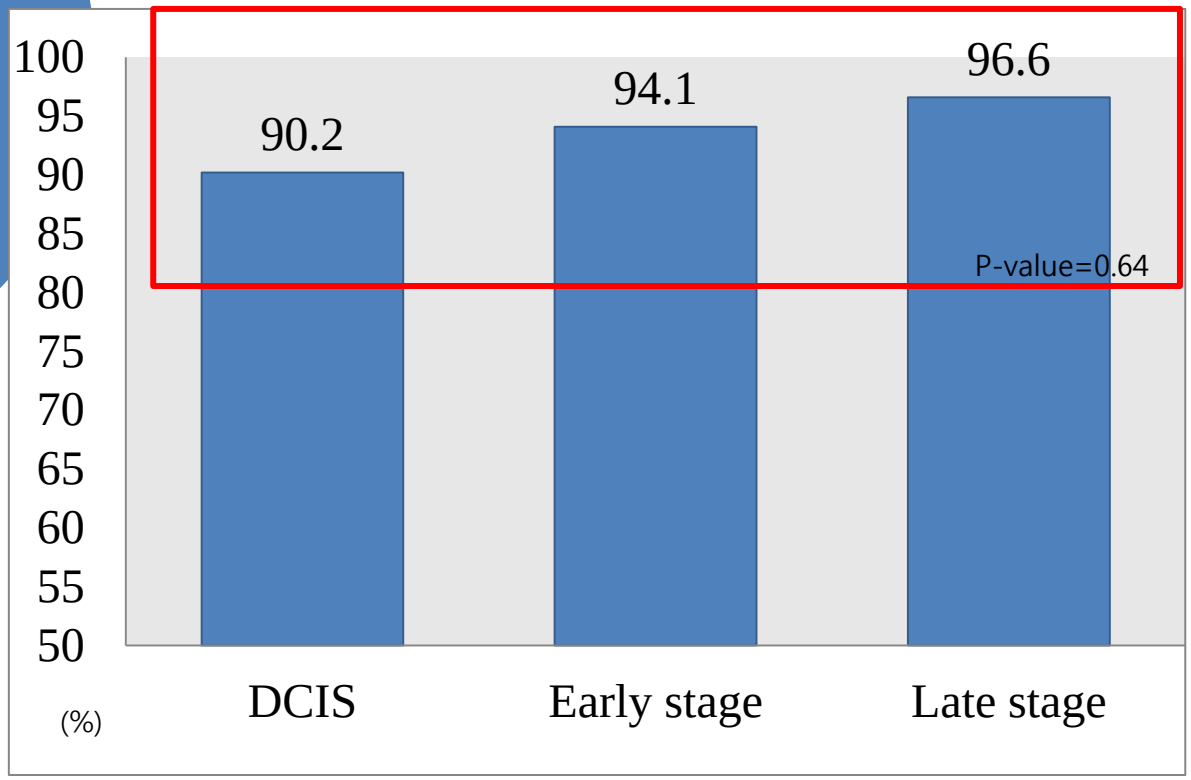




* P-value<0.05
Adjusted for age and survival

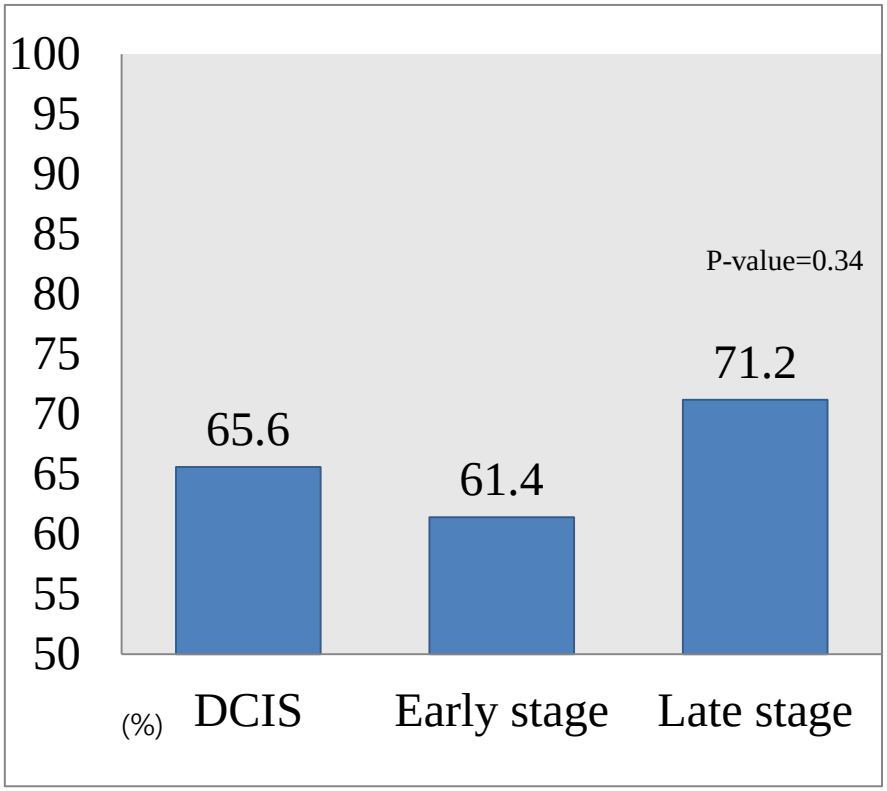
Scanxiety makes me do more active health management



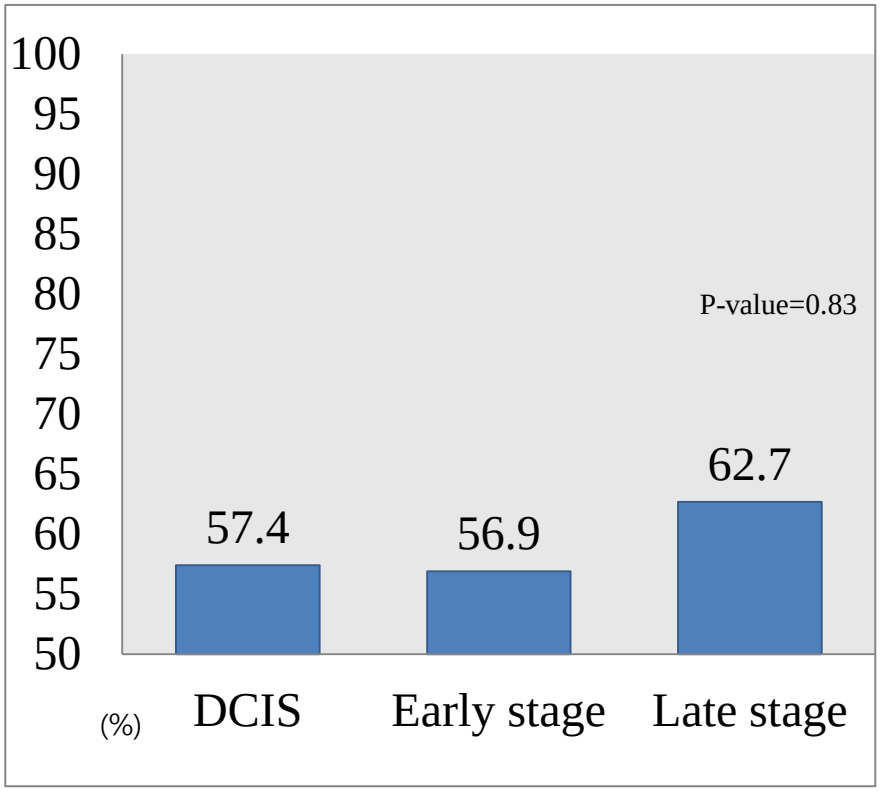


Problems due to Scanxiety

1) Daily activity disturbance

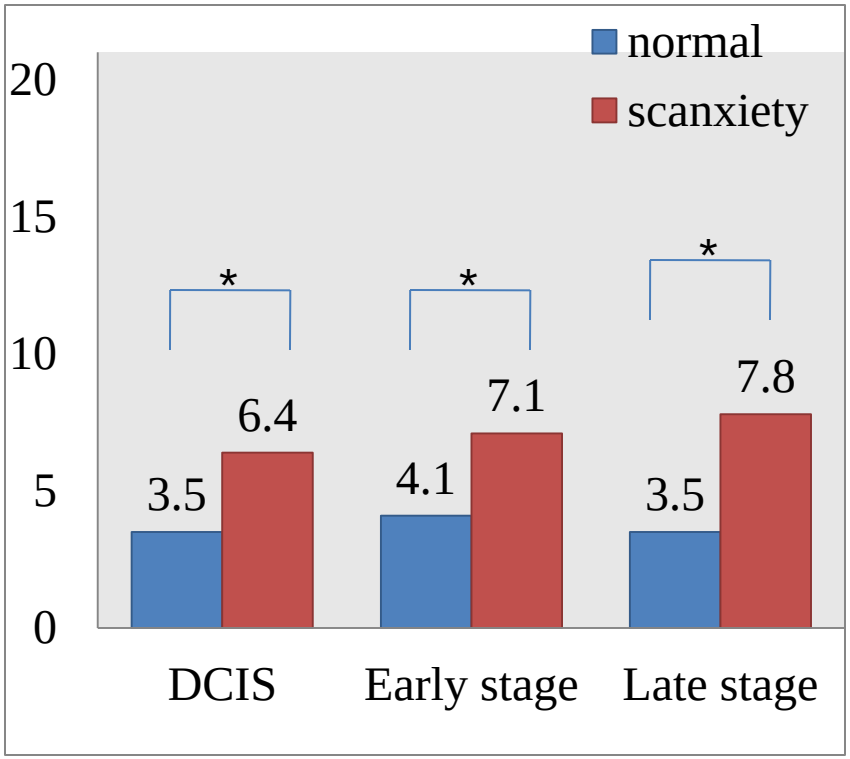


2) Business ability/Concentration



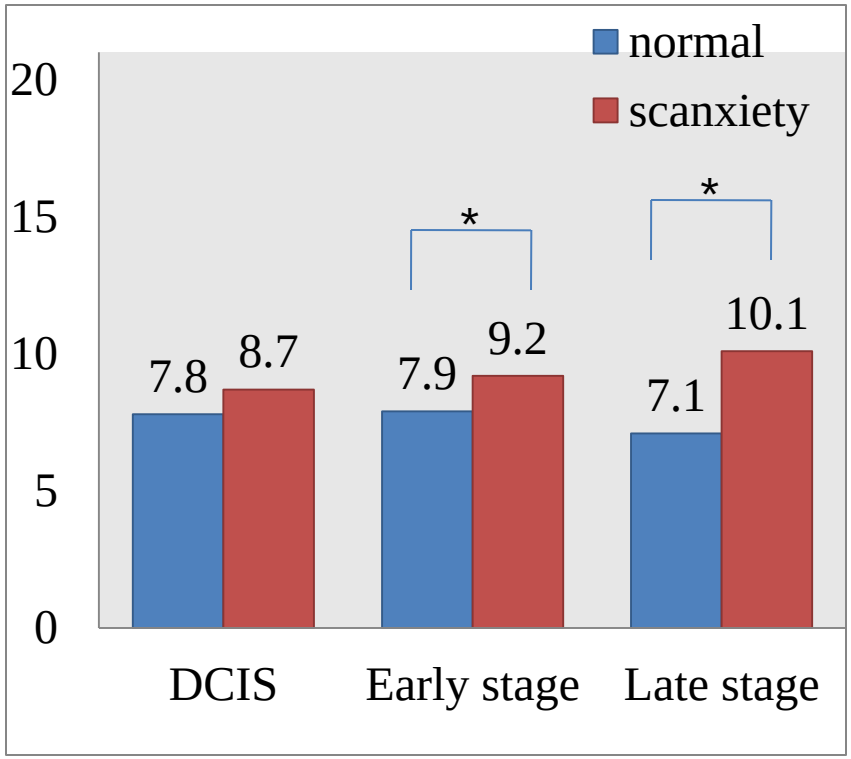
Scanxiety and Depression

1) Anxiety(range 0~21)



* P-value<0.05

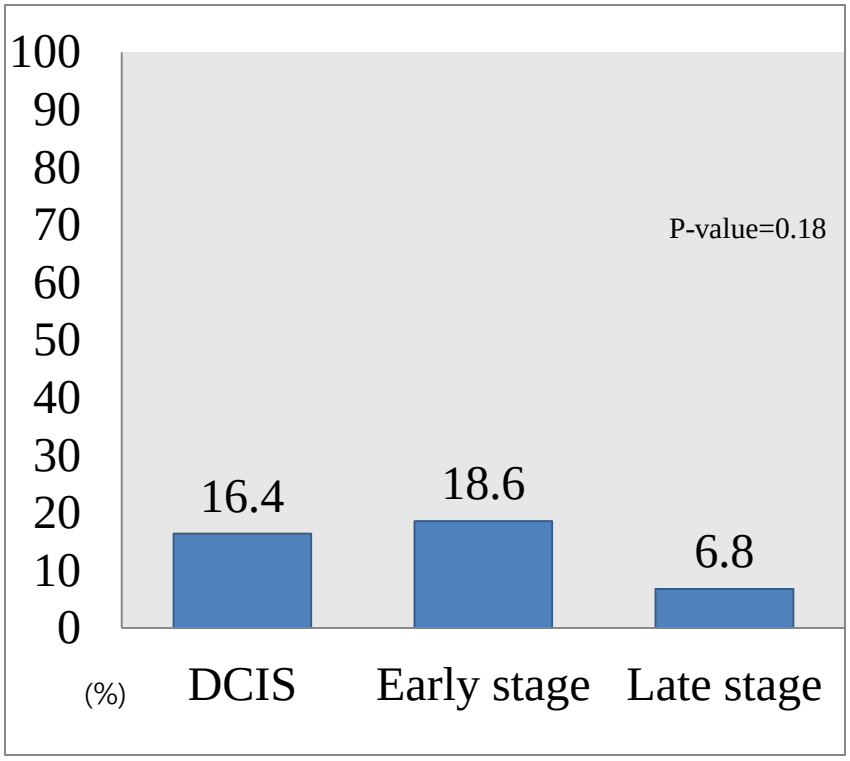
2) Depression(range 0~21)



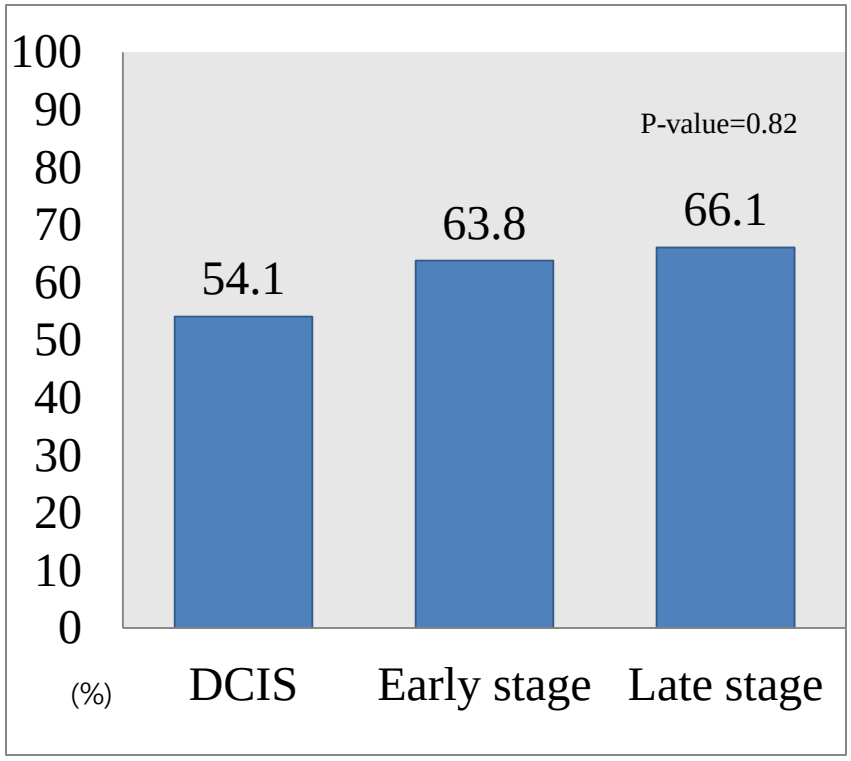
* P-value<0.05

Unmet needs: communication with doctors

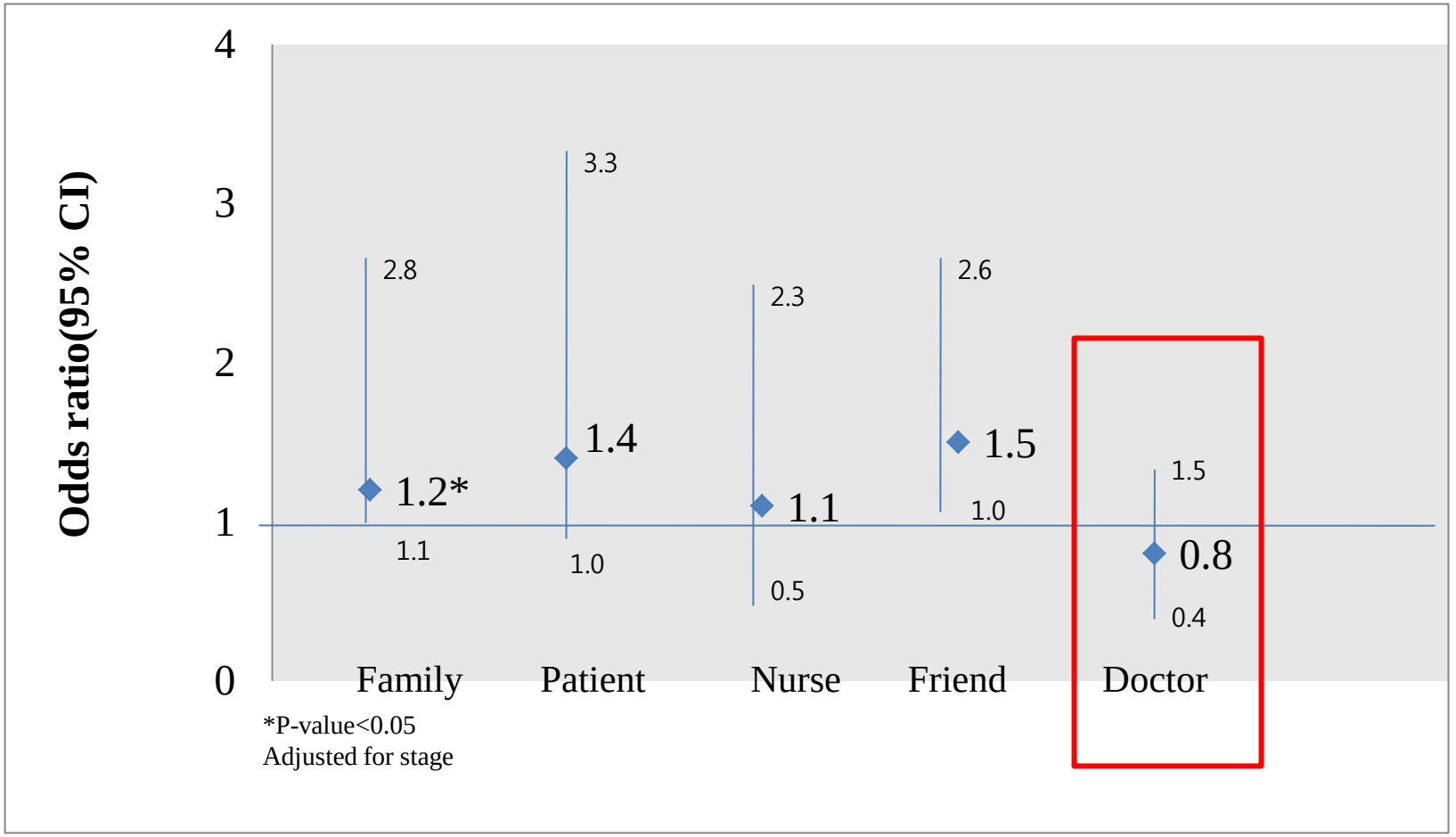
1) Ever talked with physicians



2) Want to talk with physicians



Counseling experience and scanxiety



Summary of Findings

- DCIS patients are having similar tests for surveillance as other invasive breast cancer patients.
- DCIS patients experience the same level of scanxiety as invasive breast cancer patients.
- Perceived risk of recurrence among DCIS patients is much higher than actual chance.
- DCIS patients have similar level of fear of recurrence as invasive breast cancer patients.
- DCIS patients do not have appropriate knowledge.
- Scanxiety is negatively associated with compliance of surveillance.

Clinicopathological Characteristics and Factors Affecting Recurrence of Ductal Carcinoma *In Situ* in Korean Women

Ji Sun Kim[1], Hyeong-Gon Moon[1], Soo Kyung Ahn[1], Jun Won Min[2], Hee Chul Shin[1], Han Suk Kim[1], Cha Kyung Yeom[1], Sung Hwan Ha[3], Eui Kyu Chie[3], Wonshik Han[1,4], Dong Young Noh[1,4]

[1]Department of Surgery, Seoul National University College of Medicine, Seoul; [2]Department of Surgery, Dankook University College of Medicine, Cheonan; [3]Department of Radiation Oncolocy, [4]Cancer Research Institute, Seoul National University College of Medicine, Seoul, Korea

Purpose: As breast cancer screening becomes more popular in Korea, incidence of ductal carcinoma *in situ* (DCIS) of breast has increased to more than 10% of all breast cancer diagnosed. We aimed to show the clinicopathological characteristics and factors affecting recurrence of DCIS in Korean women. **Methods**: We retrospectively reviewed 152 DCIS patients who underwent breast conserving surgery in Seoul National University Hospital between January 1995 and December 2005. **Results**: Mean age at diagnosis was 46.7 years (24 to 66 years). Mean follow up duration of the patients was 73.82 months (0.80 to 168.43 months). Recurrence of disease occurred in 19 (12.5%) patients: 2 in contralateral breast, 15 in ipsilateral breast, and 2 in axilla. One patient showed ipsilateral breast recur after excision of axillary metastasis. Eight (42.11%) of all recurrence was infiltrating ductal carcinoma and one of them showed bone metastasis during follow up. In an multivariate analysis of factors affecting recurrence, younger age at diagnosis and omission of radiotherapy had significant association with recurrence (p= 0.005 and p=0.002, respectively). However, tumor size (p= 0.862), microinvasion (p= 0.988), histologic grade (p=0.157), estrogen receptor status (p=0.401) and resection margin status (p=0.112) were not significantly correlated with recurrence. There was no breast cancer associated mortality. **Conclusion**: In this study, we found that the younger age at diagnosis and omission of adjuvant radiotherapy are independent predictors of recurrence in Korean DCIS patients.

Key Words: *Age, Breast neoplasms, Ductal carcinoma in situ, Radiotherapy, Recurrence*

중심단어: 나이, 유방신생물, 관상피내암, 방사선치료, 재발

Laura Liberman, MD, FACR

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