

가

가

2001 12



가

가

가

가

2

가

	.....	i
	.....	
	.....	
	.....	
.	.....	1
1.	.....	1
2.	.....	3
3.	.....	3
4.	.....	4
.	.....	6
1.	.....	6
2.	.....	11
.	.....	15
1.	.....	15
2.	.....	15
3.	.....	16
4.	.....	18
5.	.....	19
6.	.....	21

7.	.....	21
.	.....	22
1.	.....	22
1)	.....	22
2)	.....	24
3)	, .....	26
2.	가 .....	27
1)	가 .....	27
2)	가 .....	30
3.	.....	30
4.	가 .....	33
.	.....	34
.	.....	39
1.	.....	39
2.	.....	40
	.....	43
	.....	50
	.....	63

< 1>	.....	23
< 2>	.....	25
< 3>	, ,	..... 26
< 4>	가	..... 29
< 5>		..... 32
< 6>	.....	33

< 1>	.....	50
< 2>	.....	56
< 3>	.....	57
3-1.	.....	57
3-2.	.....	57
3-3.	.....	58
3-4.	.....	60

가

가

Y

1-2

28

12

16

2001

10 28

12 22

2

가

20

가

( , )

10cm VAS ,

Sutherland (1989)

POMS

6

10cm

(Visual Analogue Scale ;

VAS)

Cronbach's alpha가 .70

7-9

20

15

SPSS , 가 Mann-Whitney  
 U test Wilcoxon Signed Ranks Test .  
 1) (z  
 =-3.47 , p =. 001),  
 2) 가 .  
 3) (z  
 =-2.67 , p =.01),  
 4) (z=-3.44, p=.001, z=-2.70, p=.01), 가 .  
 5) (z=-3.52, p=.000),  
 (u=49.0, p=.03).

,  
 , 가 .  
 ,  
 가  
 가 .

---

: , , ,

•

1.

가

가

14.7%

가 ( , 2000).

, , . ,

가

( , 1992).

(Ivens, Hoe, & Podd, 1992;

O'Conner, Dalton, & Brown, 1993).

, , , , ,

(Samarel, Fawcett, Davis, & Ryan, 1998),

.

가 .

. ,

, , , , ,

( , 1999).

,

. ,

가 가

( , 1993;  
, 1985; , 1984; , 1992).

가

가

( , 1999; Hayes & Cox, 1999; Hulme, Waterman,& Hiller, 1999;  
Grealish, Lomasney, & Whiteman, 2000). Hill(1995)

가

가

(Ferrel-Torry & Glick,  
1993).

가

2.

가

3.

가 ,  
가?

- 1) 가 가?
- 2) 가 ( )  
가?
- 3) 가 ( )  
가?
- 4) 가 ( )  
가?
- 5) 가 가?

4.

1)

2

(Tappan, 1988).

, , 10 10  
20 ( , 2000).

2)

,  
(IASP : International Association for the Study of Pain  
1979), , ,  
(NANDA,

1995). , 가 가

24 . 10cm  
(Visual Analogue Scale ; VAS)  
가 가 .  
Baumanometer Littmann

3)

( , 1992),

( , 1993).

McNair, Lorr & Droppleman(1992) (The  
Profile Of Mood State ; POMS) Sutherland, Walker, & Till(1988)

, , , , ,  
,  
.

•

1.

1)

가 ,

2300

· , , ,  
, , ,  
, ,

(reflexology)

(Kunz & Kunz; 1999).

20

Fitzerald가

가 가

, Browsers

. 1930 Ingham

가

10

· , ,  
, 가

(Norman & Cowan, 1988).

‘ , ‘ ,  
,

(glands)

([http:// business.virgin.net/ alan.chell/ adreflex.htm](http://business.virgin.net/alan.chell/adreflex.htm)).

가 . 가

, 2000 : Dougans, 1996)

12

가 (

( )

가 가

가

( , 2000: Dougans, 1996).

72,000

(Bayers, 1983), 가

가

가 ,

가 가

가

가

(Wall, 1978).

가

(Vickers & Catherine,

1999),

3가

( , 1998; , 1998; ,

1997).

가

, ( )  
 ( ) ,  
 ,  
 ( ) ,  
 가,  
 가  
 ,  
 .  
 가  
 ,  
 가 ,  
 , , ,  
 , 가 ( ,  
 2000). (thumb or finger walking), (rotation),  
 (stretching), (pressure), (vibration/ rocking),  
 (sliding), (rub), (boogie), (twist)  
 , 가 , , , ,  
 .  
 ( , 2000).  
 , 가 ,  
 .  
 가  
 (Mackey, 2001)  
 ,

,  
 . Rogers(1966)가 “  
 . ”  
 4-H(Healing Hearts, Healing Hands)  
 .  
 2)  
 , ,  
 가 , (Dossey, Keegan, Guzzetta & Kolkmeier,  
 1995).  
 (Dobbs, 1985). 가  
 ,  
 가  
 (Watson, 1997).  
 , Wilkinson(1995)  
 가  
 enkephalins(  
 ) , 가 가  
 . Melzack & Wall(1965)  
 가 ,  
 gelatinosa cell dorsal horn transmission  
 cell, .

(Miller & Wall, 1991). Goats(1992)

, , 가 .

Grealish (2000) 87 10 3 . Hayes

, , 가 .

Cox(1999) 25

5 , ,

, 가 , 가

. 5 가 가

, 가

. Field (1992) 32 5 30

10 .

, , 가 ,

가 가 .

Hulme (1999) 1 (day surgery unit)

59 5 가

. ,

. 12 (17%)

, 8 .

IV cannula가 가 .

Stephenson, Weinrich, & Tavakoli(2000)

가 , 가 .  
 ,  
 .  
 가 . (1999) 가 ,  
 가 , (2000)  
 가 , 가 ,  
 ,  
 .  
 가 가 ( , , 2001) .  
 , , ,  
 가 ,  
 가 .  
 가 .

2.

. IASP(International Association for the Study of Pain, 1979)

(NANDA, 1995). Melzack Cassey(1968) , ,  
, ,  
. Cupples(1992)  
, ,  
. Cassel(1982)  
, McCaffery(1979) “  
”  
가 (Parker,  
Frank, & Beck, 1988), , ,  
, , , (Creed,  
1990).  
가  
가 ( ,  
1994).  
가  
, ( ,  
, 1999). , ,  
,  
(O'Connor, Dalton, & Brown, 1993; Samarel, & Fawcett,  
1992). 24 74%가  
, 72 65%가  
(Owen, McMillan, & Rohowski; 1990). Francke Theeuwien(1994)

가

35%-53% ( , 1999).

Wilson(1987)

가

가

가 가 Hill(1995)

(Wolberg, Romass, Tanner, & Malec; 1989). , Scott(1983)

85%

2 5

가 (Lee, Love, Mitchell,  
& Park, 1992; Wolberg, Romass, Tanner, & Malec; 1989). Samarel (1998)  
(dialogue and therapeutic touch)  
가  
가  
가  
가  
가  
가  
( , )

•

1.

가

(nonequivalent control group non-synchronized design) .

2.

2001 10 28                      2001 12 22                      Y

1-2

1) ,

2)

3) 18

4)

5) 가

6)

7)

16 , 12

28 .

11 , 12 .

### 3.

1) :

(Visual Analogue Scale ; VAS) .

0(

), 10( ) 10cm

가

가

24

, '0' '10'

가

cm

cm

, 가

(Ferrell-Torry & Glick, 1993; Grealish et al, 2000; McMillan, Tittle, Hagan & Laughlin, 2000).

(1983) McGill Pain Questionnaire(MPQ) ,

(r=.95) ( , 1987)

2)

:

가 ( : Baumanometer, USA)  
( ; Littmann, USA) .

30

2

3)

Sutherland (1988) POMS The Linear  
Analogue Self Assessment(LASA) , Profile Of Mood State(POMS)  
6 ( , , , , , ) .  
10cm ' ~ '(0) ' ~ '(10)  
가 .  
Cronbach's  $\alpha=0.79$  , Cronbach's  $\alpha$   
=0.82(Irvine, Vincent, Graydon, Bubela, & Thompson, 1994) .

4)

, , , , ,

5)

, , , ,

4.

20 가 30

1)

(1) \_\_\_\_\_ : 5 가 5 ( )  
 10 20 )

(2) \_\_\_\_\_  
 가

가  
 , 가  
 : → →  
 → . → 가 →  
 → → →  
 → 3 / 5 , 10 .

:

5 / 5 10

가

가 (가 , )

( , , , )

→ 가 ( , , )

→ ( , , , , )

→ ( , , , , , )

→ ( , , , , , , , , , , , )

→

→ (가 , )

→ ( 5cm )

5 5 10

( , 2000; ).

가

5.

Y

가

7

가

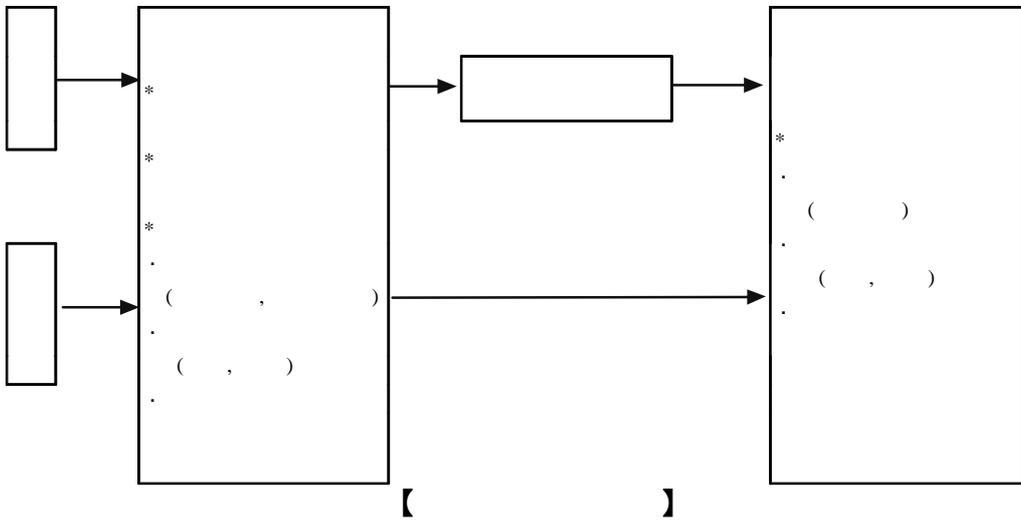
가  
 15 ,  
 20 ,  
 15  
 35  
 15  
 15 , 30 , 1 3  
 가 ( 2 ).

---



---

< 10 > < 20 > < 15 >



6.

SPSSWIN 10.0

$\chi^2$ - test

Mann-Whitney U test

가 , , ,

Mann-Whitney U test Wilcoxon Signed Ranks Test

7.

1) ,

2) 가 가

3) 가

4)  
(placebo group)

•

1.

( , ) X<sup>2</sup>- test, Mann-Whitney U test

1)

< 1>

16 , 12 28 .

45-54 가 13 (46.4%) 가 .

가 8 (28.6%) , 75% 가 . 26

(92.9%) , 2 (7.1%) .

가 12 (42.9%) 가 , 20

(71.5%) . 가 21 (75%) 가

2 (7.1%), 2 (7.1%) , 가

201-300 가 13 (46.4%) 가 .

가 .

< 1 >

(N=28)

		<u>(n=16)</u>	<u>(n=12)</u>		<b>x<sup>2</sup></b>	<b>U</b>	<b>p</b>
		(%)	(%)	(%)			
25- 34		1 (6.3)		1 (3.6)	83.0		.55
35- 44		5 (31.3)	5 (41.7)	10 (35.7)			
45- 54		9 (56.4)	4 (33.3)	13 (46.4)			
54- 64			3 (25.0)	3 (10.7)			
65		1 (6.3)		1 (3.6)			
		5 (31.3)	3 (25.0)	8 (28.6)	.97*		.91
		5 (31.3)	3 (25.0)	8 (28.6)			
		3 (18.8)	2 (16.7)	5 (17.9)			
		3 (18.8)	4 (33.3)	7 (25.0)			
		16 (100)	10 (83.3)	26 (92.9)	2.87*		.18
			2(16.7)	2 (7.1)			
		5 (31.3)	3 (25.0)	8 (28.6)	1.78*		.50
		8 (50.0)	4 (31.3)	12 (42.9)			
		3 (18.7)	5 (41.7)	8 (28.6)			
			2 (16.7)	2 (7.1)	6.23*		.07
		1 (6.3)		1 (3.6)			
	/		2 (16.7)	2 (7.1)			
		14 (87.4)	7 (58.3)	21 (75.0)			
		1 (6.3)	1 (8.3)	2 (7.1)			
가	100	1 (6.3)	2 (16.7)	3 (10.7)	2.32*		.58
	101- 200	7 (43.7)	4 (33.3)	11 (39.3)			
	201- 300	8 (50.0)	5 (41.7)	13 (46.4)			
	300		1 (8.3)	1 (3.6)			

\*Fisher's Exact Test

2)

< 2>

. 27 (96.4%) 가 , 1  
(3.6%) . 1 2 가 13  
(46.4%) 가 3 8 (28.6%) .  
1 3 6 (37.5%),  
19 (75.0%) 1-2 가 ,  
.  
11 (68.7%)  
, 가 7 (58.3%)  
, 가 .  
Airtal 18 (64.3%)  
. 17 (60.7%) , '  
' 6 (21.4%) 가 , ' 5 (17.9%), '  
' 3 (10.7%), ' 2 (7.1%), ' 1 (7.1%) , '  
' 11 (39.3%) .  
가 , , , ,  
가 .

<표 2> 질병 제 특성에 대한 실험군과 대조군의 동질성 비교

(N=28)

변수	구분	실험군(n=16)	대조군(n=12)	계	*또는 U	p
		실수 (%)	실수 (%)	실수 (%)		
수술종류	변형근치술	15 (93.8)	12 (100)	27 (96.4)	.78*	1.0
	단순절제술	1 (6.2)	0 (0.0)	1 (3.6)		
진단받은 시기	1개월미만	6(37.5)	1(8.3)	7(25.0)	10.69	.04**
	1-2개월이하	4 (25)	9 (75.0)	13(46.4)		
	3개월이상	6 (37.5)	2 (16.7)	8 (28.6)		
과거 수술경험 유	유	11 (68.7)	5 (41.7)	16 (57.1)	2.05*	.25
	무	5 (31.3)	7 (58.3)	12 (42.9)		
진동제	Airtal	9 (56.3)	9 (75.0)	18 (64.3)	1.05*	.43
	tarasyn	7 (43.7)	3 (25.0)	10 (35.7)		
기타 불편감	어지러움	3 (18.8)	2 (16.7)	5 (17.9)	4.34	.83
	움직임이 부자유스러움	2 (12.5)	1 (8.3)	3 (10.7)		
	두통	1 (6.3)	1 (8.3)	2 (7.1)		
	기운없음	4 (25.0)	2 (16.7)	6 (21.4)		
	수면		1 (8.3)	1 (7.1)		
	없음	6 (37.5)	5 (41.7)	11 (39.3)		

\* Fisher's Exact Test

\*\* p<.05

### 3) 통증강도, 생리적 지수, 기분에 대한 동결성 비교

실험군과 대조군간의 통증강도, 통증의 생리적 지수(혈압, 맥박)와 기분에 관한 동결성 검증은 <표 3>과 같다.

<표 3> 통증강도, 생리적 지수, 기분에 대한 동결성 비교

(N=28)

변수	하부척도	실험군(n=16)	대조군(n=12)	u	p
		평균±표준편차	평균±표준편차		
통증강도		5,6±1,4	4,9±1,7	79,0	,43
생리적 지수					
수축기 혈압		106,9±29,8	114,6±7,8	87,0	,66
이완기 혈압		71,9±13,3	70,4±8,1	93,5	,90
맥박		79,6±9,4	79,8±7,9	92,0	,85
기분		5,18±53	4,39±95	80,0	,46
	피곤	5,6±1,2	4,9±1,2	72,0	,26
	불안	5,7±1,1	4,3±1,6	45,0	,02*
	혼란스러움	5,7±1,1	4,8±1,5	56,5	,07
	우울	5,0±1,2	4,4±1,1	59,5	,90
	기운 <sup>1)</sup>	4,0±1,2	3,8±1,2	87,0	,68
	화가 남	4,9±1,2	4,1±1,3	52,5	,04*

\*p < .05 1)부정문으로 역계산 하였음

5.6 , 4.9 0.7  
 .  
 110.3mmHg, 114.6mmHg,  
 71.9mmHg, 70.4mmHg ,  
 .  
 79.6 / min, 79.8 / min .  
 , , , , 가  
 .  
 5.7 , 4.3 , 가  
 4.9 , 4.1 . , 가 가  
 . , 5.18 ,  
 4.39 , .

## 2. 가

### 1) 가

, , . ,  
 . Wilcoxon Signed Ranks Test  
 < 4> .

5.6 3.8  
 (z=-3.47, p=.001), 4.9 4.3  
 (z=-2.15, p=.03). , p<.001  
 가 .

114.6 mmHg      110.3 mmHg      106.9 mmHg      ,  
 112.9 mmHg  
 .      71.9 mmHg      64.4 mmHg  
 (z=-2.67, p=.01),      79.6 / min      74.8  
 / min      (z=-3.44, p=.001),  
 (z=-2.70, p=.01).      ,      p<.001

< 4 >

가

(N=28)

	(N=16)	(N=12)				
	±	±	z	p	z	p
	5.6±1.4	4.9±1.7	-3.47	.001***	-2.15	.03*
	3.8±1.1	4.3±1.6				
	110.3±6.7	114.6±7.8	-1.39	.16	-1.4	.15
	106.9±29.8	112.9±6.2				
	71.9±13.3	70.4±8.1	-2.67	.01**	-1.79	.07
	64.4±5.1	67.1±6.9				
	79.6±9.4	79.8±7.9	-3.44	.001***	-2.70	.01**
	74.8±8.4	76.5±8.5				
	5.18±.53	4.39±.95	-3.52	.000***	-1.95	.05*
	3.80±.80	4.01±.73				
	5.6±1.2	4.9±1.2	-3.41	.001***	-2.07	.04*
	3.9±1.4	4.4±0.9				
	5.7±1.1	4.3±1.6	-3.41	.001***	-.51	.61
	4.3±1.1	4.2±1.4				
	5.7±1.1	4.8±1.5	-3.52	.00**	-1.13	.26
	3.7±1.4	4.3±0.9				
	5.0±1.2	4.4±1.1	-3.42	.00**	-1.33	.18
	3.6±1.1	3.9±1.0				
1)	4.0±1.2	3.8±1.2	-0.27	.79	-.10	.92
	3.9±1.0	3.8±0.8				
가	4.9±1.2	4.1±1.3	-3.35	.001***	-1.48	.14
	3.4±1.5	3.5±1.0				

\*p<.05

\*\*p<.01

\*\*\*p<.001

1)

2) 가  
가  
, , , , 가  
, Wilcoxon Signed Ranks Test  
, < 4 > .  
5.6 3.9 (z=-3.41,  
p=.001), 4.9 4.4 (z=-2.07, p=.04),  
p<.001 .  
5.7 , 4.3 ,  
4.3 4.2  
(z=-3.41, p=.001). 5.7  
3.7 , 4.8 4.3  
(z=-3.52, p=.00).  
5.0 3.6 (z=-3.42,  
p=.00), 가 4.9 3.4 (z=-3.35, p=.001),  
5.18  
3.80 (z=-3.52, p=.000), 4.39 4.01  
(z=-1.95, p=.05), 가 .

### 3.

Mann-Whitney U test ,

1)

$\alpha = 0.05$  (양측 검정)로 설정한다.  
 표본 평균은 5.6, 표본 표준편차는 3.8이다. 표본 크기는 4.9이다.  
 검정통계량은 4.3이다.  
 (u=64.5, p=.14).  
 106.9mmHg, 114.6mmHg, 67.1mmHg, 71.9mmHg, 64.4mmHg, 70.4mmHg, 67.1mmHg, 110.3mmHg

2)

$\alpha = 0.05$  (양측 검정)로 설정한다.  
 표본 평균은 4.39, 표본 표준편차는 4.01이다. 표본 크기는 6이다.  
 검정통계량은 3.80이다.  
 (u=49.0, p=.03).  
 5.18

< 5>

(N=28)

	(N=16)	(N=12)	u	p
	±	±		
	5.6±1.4	4.9±1.7		
	3.8±1.1	4.3±1.6	64.5	.14
	110.3±6.7	114.6±7.8		
	106.9±29.8	112.9±6.2	72.0	.85
	71.9±13.3	70.4±8.1		
	64.4±5.1	67.1±6.9	75.0	.28
	79.6±9.4	79.8±7.9		
	74.8±8.4	76.5±8.5	83.0	.55
	5.18±.53	4.39±.95		
	3.80±.80	4.01±.73	49.0	.03*
	5.6±1.2	4.9±1.2		
	3.9±1.4	4.4±0.9	75.6	.33
	5.7±1.1	4.3±1.6		
	4.3±1.1	4.2±1.4	85.0	.61
	5.7±1.1	4.8±1.5		
	3.7±1.4	4.3±0.9	65.5	.15
	5.0±1.2	4.4±1.1		
	3.6±1.1	3.9±1.0	84.0	.57
1)	4.0±1.2	3.8±1.2		
	3.9±1.0	3.8±0.8	85.0	.61
가	4.9±1.2	4.1±1.3		
	3.4±1.5	3.5±1.0	95.5	.98

\* p<.05 1)

#### 4. 가

1)

가 20 (71.4%) 가 가 , ' 8가 ' 18 (64.3%), ' ' 10 (35.7%) . ' ' .

< 6 >

(N=28)

		(%)
		10 (35.7)
		18 (64.3)
		20 (71.4)
		9 (32.1)
		0 (0.0)
		5 (17.9)
		1 (3.6)
( )		2 (7.1)

2)

' 가 ' , ' ' , ' ' ' .

(O'Connor et al, 1993; Samarel et al, 1992), 가 .

가

가

## 1. 가

가 (z=-3.47, p=.001) (z=-2.15, p=.03)

Grealish (2000) 87 10 VAS

Hulme (1999) 59 5

가 , Ferrell-Torry Glick(1993)  
9 30 VAS

가 , 가

가 , 가

3가

VAS

가 가

(quality)

( , 1997; , 1995),

. Stephenson (2000) 23 30

Short-Form McGill Pain Questionnaire(SF-MPQ), Present Pain Inventory of the SF-MPQ(PPI) VAS 3가

3가 , VAS

SF-MPQ

가 35 (testing effect)

가

가 가

가 가

가 가

가  
 . 7 9  
 가  
 .  
 , (placebo group) ,  
 , , .

2. 가 ( , )

가  
 ,  
 (z=-2.67, p=.01),  
 (z=-3.44, p=.001, z=-2.70, p=.01),  
 가 .  
 가  
 Sutherland (1999)  
 가 ,  
 가 Grealish (2000) .  
 , Ferrell-Torry Glick(1993)  
 30  
 , 5  
 가 (1999)





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12

16

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( , )

10cm VAS ,

Sutherland

(1988)

POMS

, , , , ,

6

10cm

(Visual Analogue Scale ;

VAS)

Cronbach's alpha가 .70

7-9

20

,

15

35

SPSS , 가 Mann-Whitney  
 U test Wilcoxon Signed Ranks Test .  
 1) (z  
 =-3.47 , p =. 001), .  
 2) 가 .  
 3) (z  
 =-2.67 , p =.01), .  
 4)  
 (z=-3.44, p=.001, z=-2.70, p=.01), 가 .  
 5) (z=-3.52, p=.000),  
 (u=49.0, p=.03).

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**2.**

1) , ,  
 가 35 (testing effect)

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## I. 질병 제 특성

1. 귀하의 진단명은 ? \_\_\_\_\_
2. 처음 진단을 받은 시기는 ? \_\_\_\_\_ 년 \_\_\_\_\_ 월
3. 과거의 수술 받은 경험은?    ① 유        ② 무
4. 통증이 있다면 어느 정도인지 표시해 주십시오.

아래의 각 문항을 읽고, 오늘 귀하의 통증이 어느 정도였는지 그 정도를 0부터 10까지의 수평선 위에 X표로 표시해 주십시오.



전혀 아프지 않다  매우 아프다

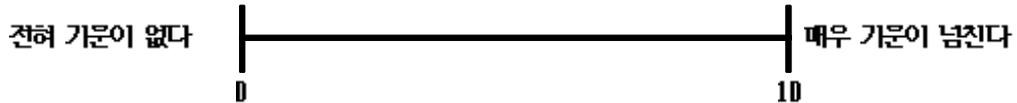
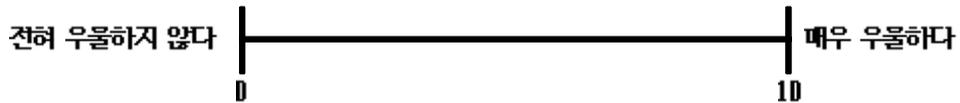
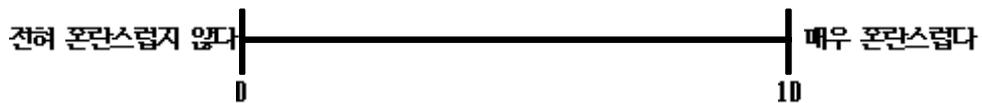
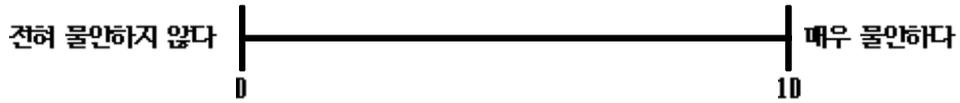
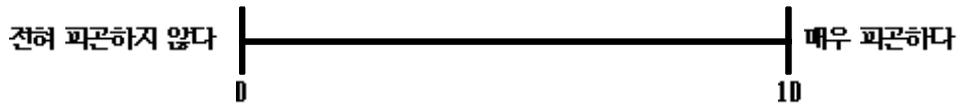
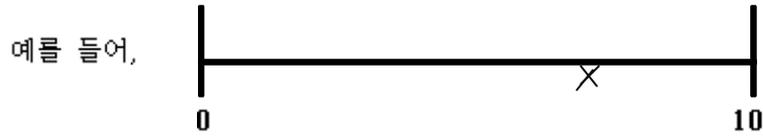
The figure shows a horizontal line with vertical tick marks at 0 and 10.

5. 다음 중에서 현재의 아픈 정도를 나타낸 어휘에 모두 V표로 표시해 주십시오.
  - ① 쿡쿡 쑤신다 ( )    ② 뜨겁하다 ( )    ③ 당긴다 ( )
  - ④ 거북하다 ( )    ⑤ 짜증스럽게 아프다 ( )    ⑥ 백적지근하다 ( )
  - ⑦ 짝 죄듯이 아프다 ( )    ⑧ 기타 \_\_\_\_\_
6. 현재 진통제가 투여되고 있습니까?    ① 예        ② 아니오
7. 언제 통증이 더 심해집니까? \_\_\_\_\_
8. 다음 중 통증을 감소시키기 위해 무엇을 적용하십니까?  
(해당하는 항목 모두 표시해 주십시오)

  - ① 열 적용    ② 냉 적용    ③ 휴식    ④ 마사지    ⑤ 운동    ⑥ 기타(    )

9. 통증 이외에 현재 느끼는 불편감은 무엇입니까 ? \_\_\_\_\_

아래의 각 문항을 읽고, 오늘 귀하의 기분이 어느 정도인지  
 그 정도를 0부터 10까지의 수평선 위에 X표로 표시해 주십시오.



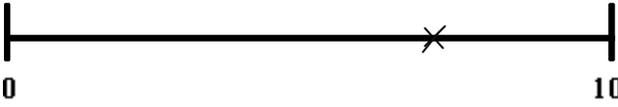
## II. 일반적 특성

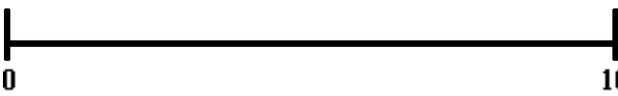
다음의 문항들은 귀하의 일반적 특성을 알아보고자 하는 것입니다.  
각 문항을 읽으신 후 솔직하게 기입해 주십시오.

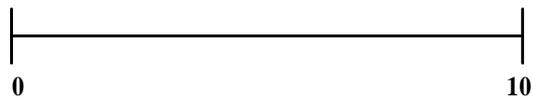
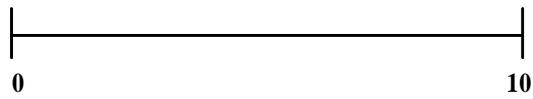
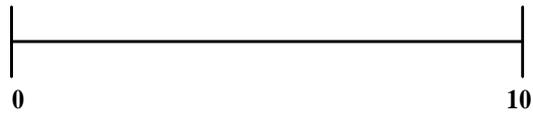
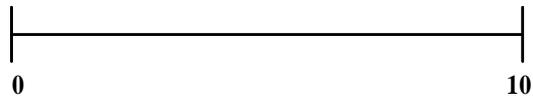
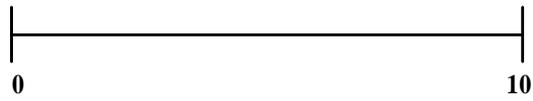
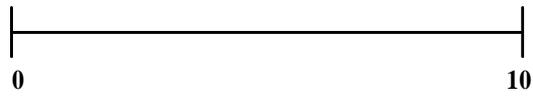
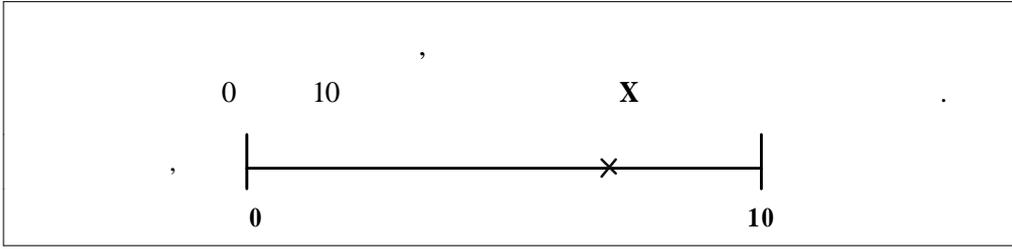
ID \_\_\_\_\_ 작성일시 \_\_\_\_\_

1. 귀하의 생년월일은 ? \_\_\_\_\_ (만 세)
2. 귀하의 종교는? ① 기독교 ② 천주교 ③ 불교 ④ 없음  
⑤ 기타 \_\_\_\_\_
3. 귀하의 결혼상태는 ?  
① 미혼 ② 기혼 ③ 동거 ④ 이혼 ⑤ 별거 ⑥ 사별
4. 귀하의 교육정도는? ① 무학 ② 초등학교졸 ③ 중졸 ④ 고졸  
⑤ 대졸 ⑥ 대학원 이상
5. 귀하의 직업은 ? ① 생산직 ② 서비스직 ③ 판매직 ④ 사무직  
⑤ 전문·행정관리직 ⑥ 학생 ⑦ 가정주부  
⑧ 무직 ⑨ 기타( )
6. 가족의 월평균 수입정도는 ?  
① 100만원이하 ② 101-200만원이하 ③ 201-300만원이하 ④ 301만원이상

현재 귀하의 통증이 어느 정도인지 그 정도를 0부터 10까지의  
수평선 위에 X표로 표시해 주십시오.

예를 들어, 

전혀 아프지 않다  매우 아프다



가

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(N=3)

	15				30				1			
	SBP <sup>1)</sup>	DBP <sup>2)</sup>	PR <sup>3)</sup>	PI <sup>4)</sup>	SBP <sup>1)</sup>	DBP <sup>2)</sup>	PR <sup>3)</sup>	PI <sup>4)</sup>	SBP <sup>1)</sup>	DBP <sup>2)</sup>	PR <sup>3)</sup>	PI <sup>4)</sup>
V	110	70	68	5.1	110	70	68	4.8	110	65	70	4.8
V	110	60	74	4.4	110	60	76	4.9	115	60	70	4.6
V	125	80	84	5.0	125	75	82	5.0	120	80	82	5.0

1)SBP : Systolic Blood Pressure

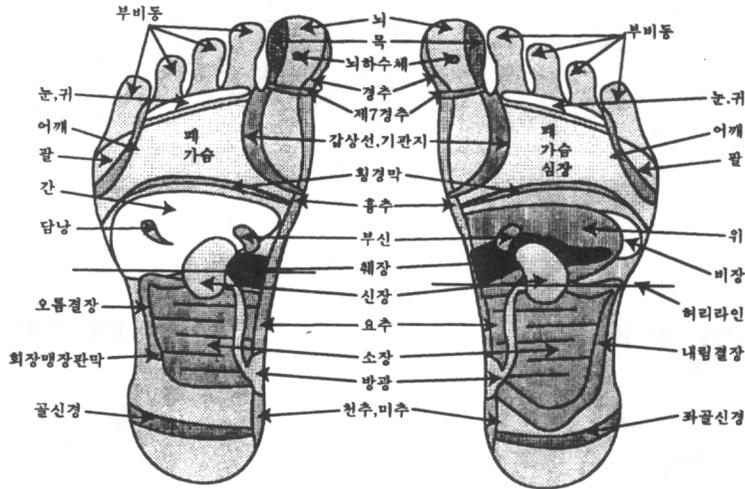
2)DBP : Diastolic Blood Pressure

3)PR : Pulse Rate

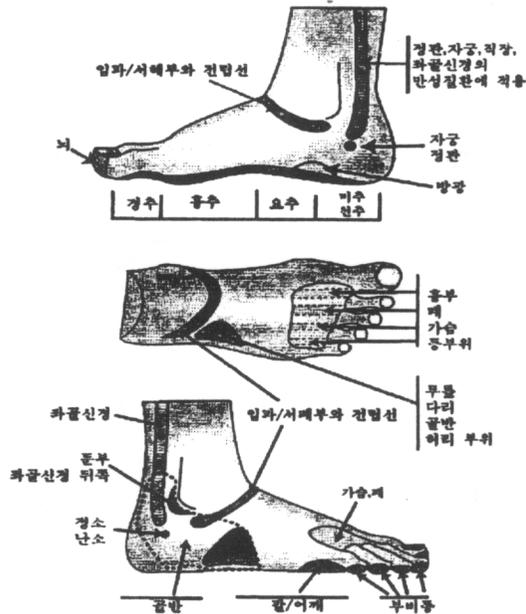
4)PI : Pain Intensity

### <부록 3> 발 반사마사지 프로토콜

#### 3-1. 발 반사구 도표 I



#### 3-2. 발 반사구 도표 II

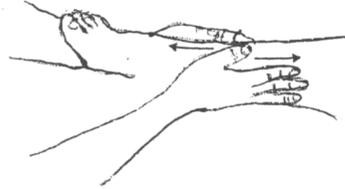


### 3-3. 기본 이완기법

① 발 전체 쓰다듬기



② 발목관절 부위 쓰다듬기



③ 발의 양옆 비벼주기



④ 발바닥 내·외측 짜주기



⑤ 발가락 비벼주기



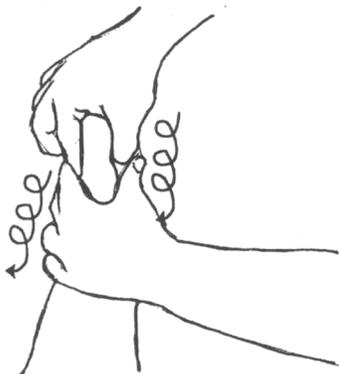
⑥ 발바닥 밀어주기



⑦ 주먹 압박법



⑧ 아킬레스건 나선 비벼주기



⑨ 발 뒤꿈치 누르기

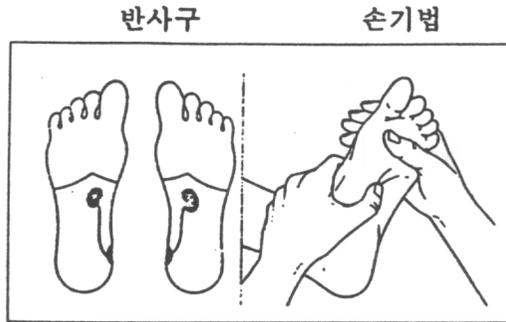


⑩ 용천 눌러주기

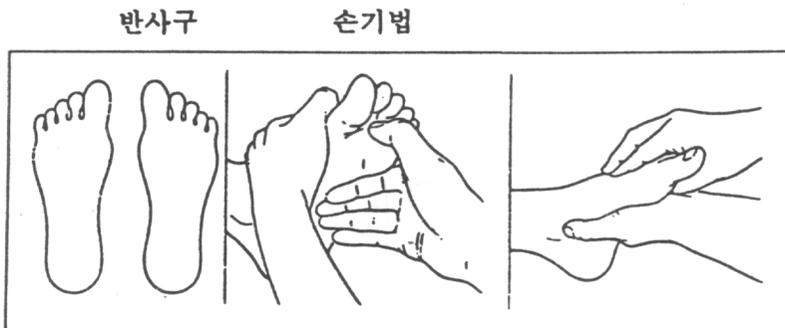


### 3-4. 반사점 마사지

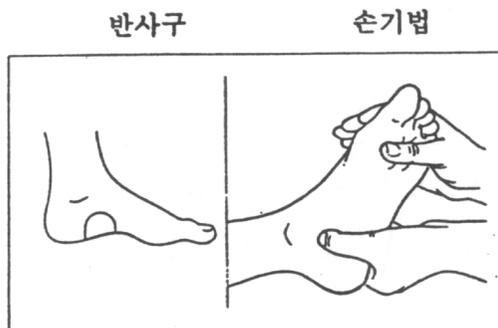
#### ① 배설기관의 반사구 자극



#### ② 발가락 뿌리 부분의 반사구



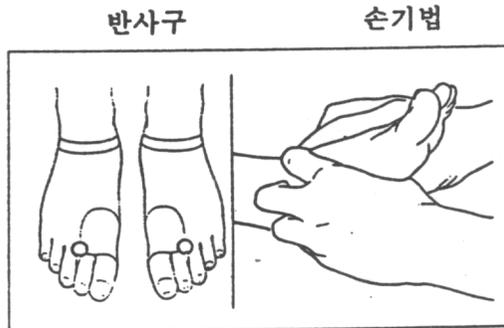
#### ③ 발 내측의 반사구 자극



④ 발 외측의 반사구 자극



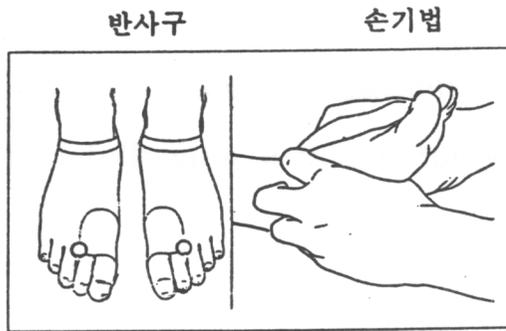
⑤ 발 등의 반사구 자극



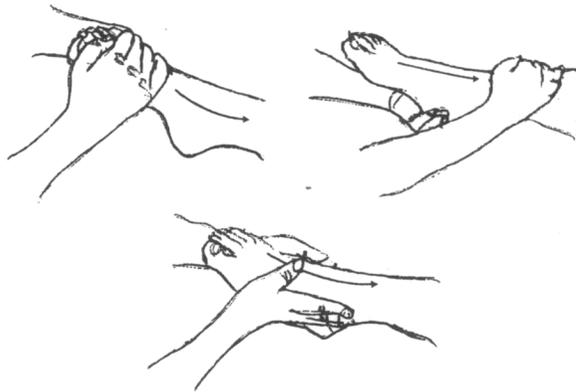
⑥ 배설기관의 반사구 자극



⑦ 발등의 반사구 자극



⑧ 다리 마사지



## **ABSTRACT**

### **Effect of foot reflexology on patient's pain and mood following a mastectomy**

Chang, Hwa Kyoung  
Dept. of Nursing  
The Graduate School  
Yonsei University

The purpose of this study was to test the effects of foot reflexology on pain and mood in patients who have just had a mastectomy.

The research design was a nonequivalent control group, non-synchronized design.

The participants for this study were 28 patients with breast cancer on first or second day after mastectomy surgery. The first 12 patients were assigned to the control group and the second 16 to the experimental group.

The study was conducted from October 28, 2001 to December 22, 2001 on a surgical unit of Y Medical Center in Seoul, Korea.

Pain intensity, blood pressure, pulse rate and mood were measured as dependent variables. The instrument used for pain intensity and mood was a 10 cm visual analogue scale. Cronbach alpha for this study was .70.

For the experimental group pre and post tests were done immediately before and 15 minutes after completion of foot reflexology. Foot reflexology was performed once for 20 minutes. After the pretest, patients in the control group were instructed to have a quiet time for a 35 minute period and then the

post-test was done.

The number of participants was small so the data were analyzed by Mann-Whitney U test, and Wilcoxon signed ranks test.

The results of this study are as follow :

1. In the experimental group there were significant decreases between the pre and post tests for pain intensity ( $z=-3.47$ ,  $p<.001$ ), diastolic blood pressure ( $z=-2.67$ ,  $p<.01$ ) and pulse rate ( $z=-3.44$ ,  $p<.001$ ) but there was no difference between the two groups on the post test.

2. The systolic blood pressure, diastolic blood pressure and pulse rate were also not significantly different between the experimental group and the control group on the post test.

3. The mood score was significantly improved after foot reflexology ( $z=-3.52$ ,  $p=.000$ ) and the difference between the two groups was also significant ( $u=49.0$ ,  $p=.03$ ).

In conclusion, there was a statistically significant difference in mood between the two groups, but no difference for pain intensity, blood pressure, or pulse rate. However, there were significant differences between the pretest and post-test for pain intensity, diastolic blood pressure and pulse rate in the experimental group.

On the basis of the above findings, this study suggests that foot reflexology can be an effective method of relieving pain and improving mood in clinical practice in women who have had mastectomy surgery.

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Key words : foot reflexology, pain, mood, mastectomy