

소위 '화병' 에서 분노유발사건의 상상과 이야기작업에 의한 정신생리반응 : 심혈관계 반응

Psychophysiological Response by Imagination and Talking about Anger-Provoked Event in Hwa-byung : Cardiovascular Response

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ABSTRACT

Objectives: This study was performed to examine the characteristic cardiovascular response patterns associated with the imagination and discussion of anger - provoked events in patients with hwa - byung.

Methods: Forty - three female patients with hwa - byung were evaluated with the Korean version of the State - Trait Anger Expression Inventory, the State - Trait Anxiety Inventory, Hamilton Rating Scale for Anxiety, Beck Depression Inventory, and Hamilton Rating Scale for Depression just before the task. Subjective Units of Distress (SUDS) and Vividness of the event (VIVID) during the imagination and discussion of the event were evaluated immediately after tasks. Blood pressure (BP) and heart rate (HR) during baseline, rest, and tasks were also evaluated.

Results: Both startle and recovery responses of BP, startle response of HR, SUDS, and VIVID in discussion task were significantly larger than in the imagination task.

Conclusion: Results suggest that it is undesirable for the patients to excessively and repeatedly recall and talk about the anger events. *Sleep Medicine and Psychophysiology* 2000 ; 7(2) : 109-114

Key words: Hwabyung · Anger · Imagination · Talk · Cardiovascular · Response.

서 론

‘화병’은 분노유발사건의 상상과 이야기작업에 의한 정신생리반응 : 심혈관계 반응을 연구한 정상근, 신준호, 황익근 등이 1998년에 발표한 논문이다. 이 연구는 화병 환자를 대상으로 분노유발사건의 상상과 이야기작업에 의한 심혈관계 반응을 평가하였다. 연구 결과, 상상과 이야기작업에 의한 심혈관계 반응은 각각 (1,2), (3,4), (5,6), (7,8), (9,10), (11,12), (13), (14)와 유사한 패턴을 보였다.

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(15), (16,17) . (18,19) , (20,21) . (22) . 가

(anger expression) 24 (anger - control), (anger - out), (anger - in), 8 (anger experience) 20 (state anger) (trait anger) 가 10 (2) Hamilton (26) 가 (25)

연구대상 및 방법

1. 연구대상자

' (25,26) 43 (; 48.98 ± 11.62 ; 8.77 ± 3.12 ; 12.06 ± 9.17) (1, 2). 1

(3) Beck (BDI, Beck Depression Inventory)(27) , Hamilton (HRSD, Hamilton Rating Scale for Depression)(28) (4). (4) (3).

2. 연구방법

1) 심리적 평가

(1) Spielberger 가 (23) (24) 가 . 44 ,

100 mm ' (0) ' (100) ' .

Table 1. Demographic data in 'hwa-byung' patients (N = 43)

Variable	Mean (SD)
Age (year)	48.98 (11.62)
Gender	All female
Education (year)	8.77 (3.12)
Duration of 'hwa-byung' (year)	12.06 (9.17)

Table 2. Psychiatric diagnostic impression in 'hwa-byung' patients (N = 43)

Diagnostic impression	N(%)
1. Somatization disorder	4 (9.3)
2. Depressive disorders	
3. Generalized anxiety disorder	
1 + 2	22 (51.2)
1 + 2 + 3	17 (39.5)
Total	43 (100.0)

Table 3. Anger-provoked events in 'hwa-byung' patients (N = 43)

Types of event	N (%)
1. Conflict with husband	13 (30.2)
1 + 2	6 (14.0)
1 + 2 + 3	1 (2.3)
1 + 3	2 (4.7)
1 + 4	1 (2.3)
1 + 6	1 (2.3)
1 + 7	1 (2.3)
2. Conflict with husband's parents	2 (4.7)
3. Conflict with sons and/or daughters	5 (11.6)
3 + 4	1 (2.3)
4. Conflict with neighbor	
5. Conflict with colleague	1 (2.3)
6. Conflict with other family members	2 (4.7)
6 + 8	2 (4.7)
7. Economic loss	1 (2.3)
8. Other	4 (9.3)
Total	43 (100.0)

(SUDS, subjective units of distress)
 (VIVID, rating of vividness) 가 (5, 6).
 2) 분노반응 유발법 가 (29)

(30)
 3) 생리적 평가 가 Biofeedback system J & J I-330 (J & J engineering, Inc.) (31,32).
 DINAMAP XL Monitor mode 9340(Johnson & Johnson Medical, Inc.) sensor (33 - 35).

Table 4. Psychological measures in 'hwa-byung' patients (N = 43)

Measures	Mean (SD)
Anger	
State anger	18.16 (8.67)
Trait anger	21.67 (7.61)
Anger-in	18.23 (4.47)
Anger-out	14.70 (4.14)
Anger-control	18.84 (4.81)
Depression	
BDI	31.44 (10.96)
HRSD	26.63 (8.24)
Anxiety	
State anxiety	57.00 (15.90)
Trait anxiety	57.05 (12.07)
HAS	24.86 (9.02)

BDI : Beck Depression Inventory
 HRSD : Hamilton Rating Scale for Depression
 HAS : Hamilton Anxiety Scale

4) 정신생리적 반응의 측정 15 (3) - (3) - (15) - 2 (3) - (3) '

5) 검사 절차 및 조건

biofeedback

가

Table 5. Baseline physiological data, a rating for subjective units of distress (SUDS), and a rating of vividness (VIVID) during tasks in 'hwa-byung' patients

	Imagination task mean (SD)	Talk task mean (SD)	t	p-value
BP.D.baseline (mmHg)	70.84 (11.17)	68.87 (10.66)	2.62	0.012
BP.S.baseline (mmHg)	118.82 (21.17)	117.21 (21.12)	1.19	ns
HR.baseline (times/minute)	69.40 (9.76)	68.23 (8.85)	2.54	0.015
SUDS (0 - 100)	34.88 (28.94)	54.65 (29.51)	- 5.12	<0.001
VIVID (0 - 100)	42.67 (24.23)	72.67 (21.69)	- 11.81	<0.001

* : Statistic significance was done by paired t-test ; BP : blood pressure ; HR : heart rate ; D : diastolic ; S : systolic ; ns : non-significant

Table 6. Comparison between imagination and talk tasks in startle and recovery responses in 'hwa-byung' patients

	Imagination task mean (SD)	Talk task mean (SD)	t	p-value*
BP.Diastolic, St	1.87 (3.84)	8.27 (6.24)	- 7.02	<0.001
BP.Diastolic, Re	2.94 (3.76)	7.18 (5.20)	- 4.62	<0.001
BP.Systolic, St	5.51 (9.56)	15.11 (10.91)	- 5.16	<0.001
BP.Systolic, Re	5.74 (6.77)	9.31 (7.41)	- 2.49	0.017
Heart rate, St	2.88 (4.51)	6.41 (6.32)	- 3.92	<0.001
Heart rate, Re	2.24 (4.17)	4.04 (5.42)	- 0.19	ns

* : Statistic significance was done by paired t-test

BP : blood pressure ; St : startle response = change (task-baseline) ; Re : recovery response = change (task-rest) ; ns : non-significant

sensor

SUDS VIVID

22~ 25

Biofeedback

4. 분노유발사건의 상상과 이야기 작업동안의 생생한 정도 및 주관적 괴로운 정도(5)

(t = -7.02, p<0.001 ; t = -5.16, p<0.001) (t = -4.62, p<0.001 ; t = -2.49, p=0.017), (t = -3.92, p<0.001) (t = -11.81, p<0.001) (t = -5.12, p<0.001)가

3. 통계분석

Biofeedback system

SPSS window version 7.1.2

가 paired t - test

고 찰

연구 결과

1. 인구통계학적, 진단적 특성(1, 2)

48.98 , 8.77 , 12.06 , 43 9.3% 4 , 51.2% 22 , 39. (VIVID, rating of vividness) (SU-DS, subjective units of distress)가 5% 17 가

2. 분노유발사건 유형(3)

30.2% 13 , 27.9%

가 58.1% , 41.9% 가 Sinha(20) 가

3. 분노, 우울, 불안 수준(4)

가 18.16, 가 21.67, 18.23, 14.70, 가 18.84 , Beck 31. 44, Hamilton 26.63 가 . (anger - out) (mood - incongruent vocal style) 가 Sargent(19) 57.00, 57.05, Hamilton 24.86

man(17) (anger - out) low, moderate, high level

Abel(36)
(19,17,36)

가
결 과 : (p=.000) (p=.000, p=.017), (p=.000) (p=.000)가

결 론 :

가 (38)
가 (37)

중심 단어 :

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목 적 :

방 법 :

iel - berger 가), (, Ha -
milton), (Beck , Hamilton
) 가 ,

(SUDS)

(VIVID) 가

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