

월경전 불쾌기분장애 환자의 광치료 임상 시도

A Clinical Trial of Light Therapy on Patients with
Premenstrual Dysphoric Disorder조숙행¹ · 김진세¹ · 김승현¹ · 김 린¹Sook-Haeng Joe,¹ Jin-Se Kim,¹ Seung-Hyun Kim¹ and Leen Kim¹

■ ABSTRACT

Objectives: Patients with premenstrual dysphoric disorder (or PMDD) have impairments of the social, occupational or academic function due to psychological or somatic symptoms, which have the characteristic pattern of symptom exacerbation in the week before menses begin and remission shortly after the onset of menses. In the chronobiological view, many researchers have assumed that the etiology of PMDD is the advanced circadian rhythm. It has been suggested that light has a therapeutic effect on PMDD, because evening light results in phase delay of circadian rhythm through the biochemical changes including melatonin.

Methods: The authors investigated the therapeutic effect of light therapy on four patients with prospectively diagnosed PMDD by DSM - criteria using clinical psychiatric interview, Premenstrual Assessment Form (PAF) and Daily Rating Form (or DRF). In the evening (6:30pm - 8:00pm), the 2,500 lux light administered for seven consecutive days during the symptomatic late luteal phase of menstrual cycle. Beck Depression Inventory (or BDI), Hamilton Rating Scale for Depression (or HAM - D), Spielberg State Anxiety Inventory (or SA), and DRF were evaluated before and after seven days of light therapy.

Results: Premenstrual symptoms of PMDD could be effectively treated with the evening bright light therapy, especially in PMDD patients with atypical symptoms. In addition, the light therapy seemed to more effective on the psychologic symptoms than the somatic symptoms of PMDD. There was no significant side - effect of light therapy, except the transient and mild eye - strain in one case.

Conclusions: In spite of the results of limited data from our clinical trial, the authors suggest that the potential use of light therapy as an alternative to the pharmacological management of patients with PMDD. *Sleep Medicine and Psychophysiology* 1999 ; 6(1) : 46-51

Key words: Light therapy · Premenstrual dysphoric disorder.

서 론

(premenstrual syndrome) (late luteal phase dysphoric disorder) (premenstrual dysphoric disorder, PMDD) DSM - (1)

PMDD

estrogen progesterone
noradrenalin serotonin

Department of Psychiatry, Korea University College of Medicine, Seoul, Korea

Corresponding author: Young Ho Lee, Corresponding author: Sook-Haeng Joe, Department of Psychiatry, Korea University College of Medicine, #80, Guro-gu, Guro-dong, Seoul 152-020, Korea
Tel: 02) 818-6131, Fax: 02) 852-1937

E-mail: shaeng@nuri.net

(chronobiology)

(2). PMDD

(phase advance of sleep - waking cycle) , (phase delay of sleep - waking cycle) 가 Beck Depression Inventory(BDI) (3), 가 21 Hamilton Rating Scale for Depression(HAM - D) (core body temperature minimum) (4) PMDD Spielberg State Anxiety Inventory(SA) . DRF 21 (advanced circadian rhythm) “ 가 ” “ PMDD progesterone, bromocriptine, atenolol, clonidine, lithium ” 1 6 가 (SSRIs) (5가) (16가) 가 (2). PMDD가 (1). , 가 2,500 lux light box(The APOLO Bright Lite) (5,6) (7,8)가

결 과

PMDD 가 PMDD 4 , B , 3 가 연구대상 및 방법 7 가 1 3 A (1, 2, 1 - 3) 39 DRF (56 53 (Halbreich Endicott(9))) (premenstrual assessment form, PAF) Endicott Halbreich(10)가 5.36% . DRF 2.80 × 100) 가 (daily rating form, DRF) ’ 6 2.80 가 PAF 2.63 DRF 가 가 30% 2.44 , 7.22% . BDI 24 가 , DRF 16 , HAM - D 32 26 , SA 73 61 B (1, 2, 1 - 3) 41 DRF 가 , DRF 41 32 21.95% DSM - ’ , DRF 1.80 4 . 1.60 11.11% . 6 (28 32) , 2.00 12 BDI 12 , HAM - D 12 11 가 . 7 10 , 7 , , SA 43 39 . 6 30 8 90 C (1, 2, 1 - 3) 32 DRF . 91 55 39.56% , 4.60 , 3.40 26.09% .

Table 1. Items and scores of daily rating form

	A		B		C		D	
	BL	AL	BL	AL	BL	AL	BL	AL
Somatic symptoms								
6. Abdominal pain or pain	1	1	1	2	4	3	1	1
7. Breast pain	5	5	1	1	3	3	1	1
9. Back, joint, or muscle pain	5	5	4	3	5	4	5	4
10. Feel bloated, have edema	1	1	2	1	6	4	6	5
20. Headaches	2	2	1	1	5	3	3	2
Subtotal scores of somatic symptoms	14	14	9	8	23	17	16	13
Mean scores of somatic symptoms	2.80	2.80	1.80	1.60	4.60	3.40	3.20	2.60
Psychologic symptoms								
1. Mood swings	2	1	2	1	4	3	5	2
2. Irritable, anger, impatient	4	2	3	1	4	2	5	2
3. Depressed, sad, low, blue, lonely	3	3	3	1	4	2	5	2
4. Aaxious, jittery, nervous, restless	5	5	2	1	5	2	5	1
5. Stay at home, avoid social activity	5	4	2	1	5	2	4	1
8. Less sexual interest	1	1	2	3	4	2	4	1
11. More sleep, naps, stay in bed	2	1	2	3	5	3	4	2
12. Less, impaired work	3	4	3	2	4	2	3	3
13. Low energy, tired, weak	4	5	3	3	4	2	5	3
14. Drinking coffee, tea or beverage including caffeine	1	1	1	1	5	3	1	1
15. Increased appetite, eat more, crave foods	1	2	3	2	5	3	1	1
16. Take more alcohol, tobacco or drugs	1	1	1	1	5	3	1	1
17. More sexual activity	1	1	1	1	2	2	4	1
18. Increased enjoyment, creativity	1	1	1	1	4	2	1	1
19. Passionate, feeling of intimacy	3	2	1	1	3	2	1	1
21. Difficulty in concentration, unclear thinking, forgetfulness	5	5	2	1	5	3	5	5
Subtotal scores of psychological symptoms	42	39	32	24	68	38	54	28
Mean scores of psychological symptoms	2.63	2.44	2.00	1.50	4.25	2.38	3.38	1.75
Total scores of daily rating forms	56	53	41	32	91	55	70	41
Mean scores of daily rating forms	2.67	2.52	1.95	1.52	4.33	2.62	3.33	1.95

BL: before the light therapy, AL: after the light therapy, A, B, C, & D: each of the object patients

Table 2. Changes of depressive mood and anxiety

	BDI		HAM-D		SA	
	BL	AL	BL	AL	BL	AL
A	24	16	32	26	73	61
B	12	12	12	11	43	39
C	11	5	14	5	49	49
D	19	18	8	4	67	54

BDI: beck depression inventory, HAM-D: hamilton rating scale for depression, SA: spielberg state anxiety inventory, BL: before the light therapy, AL: after the light therapy, A, B, C & D: each of the object patients

D	(1, 2,	1, 2, 3)	38	DRF
70			41	41.43%
				3.20
2.60			18.75%	
			3.38	1.75
	48.22%		BDI	19
	가	, HAM - D	8	4
67	54			, SA

		4.25		2.
38		44.12%	. BDI	11
	, HAM - D	14	5	, SA
49	49	가	.	

고 찰
Hippocrates가
, 1931 Frank

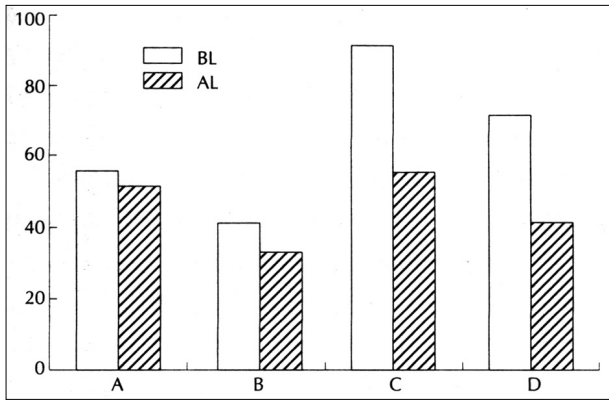


Fig. 1. Change of total scores of DRF(BL: before light therapy. AL: after light therapy. A, B, C, & D: each of the object patients).

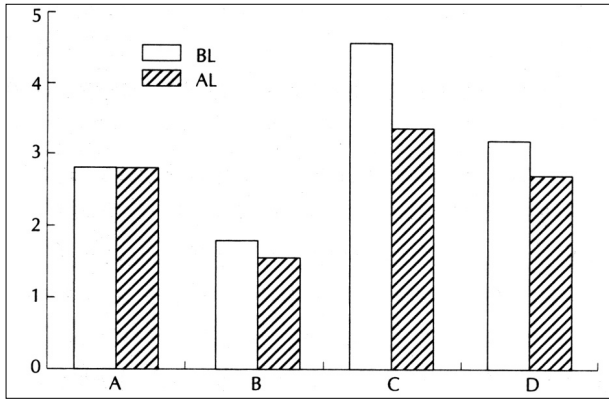


Fig. 2. Changes of mean scores of somatic symptoms from DRF(BL: before light therapy. AL: after light therapy. A, B, C, & D: each of the object patients).

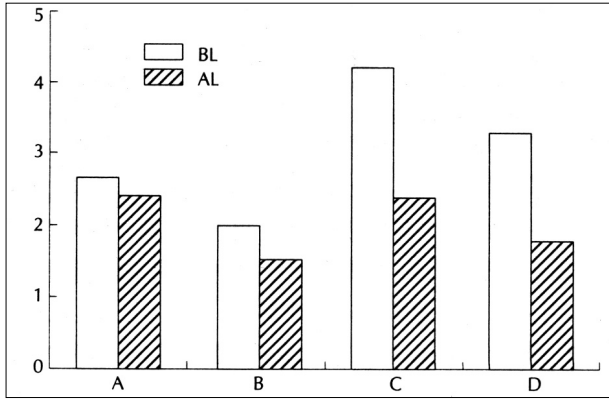


Fig. 3. Changes of mean scores of psychological symptoms in DRF(BL: before light therapy. AL: after light therapy. A, B, C, & D: each of the object patients).

(premenstrual syndrome) , 가 PMDD (2). , DSM - -R(11) , DSM -

(depressive disorder not otherwise specified) , , , PMDD 3 5% , (1) , 가 PMDD (12)가 , Bloch (13) PMDD (spectrum of recurrent mood disorder) , PMDD 가 , PMDD 가 가 estrogen progesterone (14), PMDD progesterone (15). (4) PMDD (3) 가 (7,8,16). , , (17). me- latonin 가 (18) (19)가 PMDD 가 PMDD 가 (3,7, 8). (7). 가 melatonin 가 가 PMDD - 가 PMDD Parry (8) 6 가 가 BDI

HAM-D (A C) 가 PMDD (reverse diurnal variation) 가 (inverse) (carbohydrate craving) 가 PMDD DRF (gonadotrophin-releasing hormone agonist) BDI 가 HAM-D (24,25) 가 BDI 가 , C D 가 가 PMDD 가 PMDD , 1998 Kogan (26) 45.7% , 가 (21), Yonker(22) PMDD 가 (lactate infusion) PMDD PMDD B PMDD 가 , PMDD , 4 (visual analogue scale) (7,8) 가 C 요 약 목 적 : 가 SA 4 13 가 26.09% DRF 가 PMDD 10.53% 44.29% 가 9.53% 51.85% 7.14% PMDD (fluoxetine, sertraline, paroxetine) clomipramine, alprazolam, (GnRH agonist, estradiol, danazol) (23). (24,25) 3 , 4

결 론 :

(,)가

중심 단어 :

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