

신경성 폭식증 환자의 예후인자*

신윤식** · 김준기*** · 배재현*** · 김찬형**†

Prognostic Factors in Bulimia Nervosa*

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국문초록

연구목적 :

(Bulimia Nervosa) 가

방 법 :

Eating disorder inventory (EDI - 2), Beck depression inventory(BDI) Minnesota multiphasic personality inventory(MMPI) 62 , 가 , Body mass index(BMI), EDI - 2, MMPI fluoxetine(: 20 60mg/d)

결 과 :

3 , 가 4 3 62 32 , 30 , BMI, (desired weight), (lowest weight), 가 , BDI 가 , EDI - 2 (bulimia), (ineffectiveness) EDI - 2 MMPI, (inte -

: 2000 4 14
 : 2000 5 10
 .. 1999 10 29 42

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roceptive awareness) 가

결 론 :

가 가

가

중심 단어 :

서 론

가

5)

(bulimia nervosa)
bidity) (mortality)

(mor -

가

가

1)

1 3%

2)

1960
vosa)

2

(anorexia ner -
가

1%

가

3)

대상 및 방법

1. 연구대상

가

4)

, DSM -

가

1)

(binge eating/pur -

5

가

80%

ging type)

EDI - 2(Eating Disorder Inventory - 2)⁶⁾

MMPI(Minnesota multiphasic personality invent -
ory)⁷⁾

12

62

15

32

24.8(±3.3)

가

2. 연구방법

가
MMPI , EDI - 2, 3) 자료분석
SPSS/WIN version 8.0

1) 변 인 , BMI, , independent t - test
가 가
(BMI), 가 ² - test
가 EDI - 2, BDI, MMPI
가 t - test
가 p<.05

24.8
62 5 결과
EDI - 2, MMPI 62 32 , 30
1, 2

2) 치료반응 판정의 기준
fluoxetine 22.1(±2.2)
20 60 21.3(±2.9) 가
mg 36.5(±27.7) , 42.5(±25.2)
Marion
Marion ⁸⁾ 20.7(±2.1), 20.0
가 3 (±1.8) 가 , 17 24
3 23.3(±11.6) ,
가 55.1(±24.9)
12 가 4 12
가 3 0.7(±0.8) ,
23.7(±15.0) , 97.2%
가 가 57.0%
가 (3).
가
12

Table 1. Pretreatment clinical characteristics in responders and non-responders

	Outcome				P-value*
	Responders (N = 32)		Nonresponders (N = 30)		
	Mean	(SD)	Mean	(SD)	
Age	25.1	(3.2)	24.5	(3.4)	0.527
Age onset of bulimia	22.1	(2.2)	21.3	(2.9)	0.225
Duration of bulimia	36.5	(27.7)	42.5	(25.2)	0.379
Body mass index(BMI)	20.7	(2.1)	20.0	(1.8)	0.166
Binge episode/month	23.3	(11.6)	55.1	(24.9)	0.000
Height(cm)	162.1	(4.3)	161.7	(4.7)	0.731
Lowest weight(kg)	47.9	(4.0)	46.6	(5.0)	0.268
Desired weight(kg)	48.5	(3.2)	47.1	(5.0)	0.186

*Statistical significance was tested by independent t-test
 N : Number of subjects SD : Standard deviation

Table 2. Pretreatment clinical characteristics in responders and non-responders

	Outcome				P-value*
	Responders (N = 32)		Non-responders (N = 30)		
	N	(%)	N	(%)	
Job	23	(71.9)	28	(93.3)	0.060
History of previous suicide attempt	0	(0)	5	(16.7)	0.002
History of substance use (diuretics, laxatives)	6	(18.8)	14	(46.7)	0.038
Family history of psychiatric illness	0	(0)	8	(26.7)	0.002

* ² test with two-tailed Fisher's exact test

가 .
 ,
 가 ,
 23/32 (71.9%), 28/30 (93.8%)
 (p=0.06).
 , 5/30 (16.7%)
 ,
 thiazide
 가 6/32 (18.8%),
 14/30 (46.7%)
 가 .
 가 8/30 (26.7%)
 가
 . 가 8 50% 4

Table 3. Comparisons of frequency of binge episode between pretreatment and 3rd month of treatment

	Responders	Non-responders
Pretreatment period	23.3(± 11.6)	55.1(± 24.9)
3rd month period	0.7(± 0.8)	23.7(± 15.0)
Ratio of decline	97.2%	57.0%

가 , 2 , 1 ,
 1 .
 MMPI
 . EDI - 2
 (bulimia), (in -
 effectiveness) (interceptive awa -
 reness) 가
 (4, 5).

고 찰

Table 4. Pretreatment EDI-2 characteristics in responders and non-responders

	Outcome				P-value*
	Responders(N = 27)		Non-responders(N = 27)		
	Mean	(SD)	Mean	(SD)	
Drive for thinness	12.9	(3.2)	13.7	(3.2)	0.407
Bulimia	9.2	(4.5)	14.6	(4.8)	0.000
Body dissatisfaction	15.9	(7.5)	16.5	(7.5)	0.745
Ineffectiveness	9.2	(6.7)	14.2	(8.6)	0.019
Perfectionism	7.3	(3.7)	9.2	(4.5)	0.098
Interpersonal distrust	7.1	(5.4)	8.2	(6.9)	0.526
Interoceptive awareness	4.5	(4.2)	10.0	(8.0)	0.003
Maturity fears	8.2	(5.6)	7.6	(5.8)	0.686
Asceticism	6.4	(2.9)	7.9	(4.3)	0.147
Impulse regulation	4.6	(3.6)	7.3	(6.7)	0.069
Social insecurity	6.4	(3.8)	8.6	(4.5)	0.057

*Statistical significance was tested by independent t-test

Table 5. Pretreatment MMPI features in responders and non-responders

	Outcome				P-value*
	Responders (N = 26)		Non-responders (N = 27)		
	Mean	(SD)	Mean	(SD)	
Hs	58.2	(7.2)	60.6	(10.6)	0.334
D	60.0	(10.2)	63.7	(9.9)	0.184
Hy	59.2	(8.7)	59.5	(8.7)	0.917
Pd	58.8	(10.7)	59.8	(10.3)	0.739
Mf	46.1	(10.0)	48.7	(7.8)	0.291
Pa	54.9	(8.0)	58.6	(13.3)	0.224
Pt	56.4	(11.6)	60.7	(11.6)	0.207
Sc	53.3	(12.9)	60.4	(14.9)	0.067
Ma	45.9	(10.4)	50.3	(10.4)	0.136
Si	51.5	(12.0)	51.4	(12.9)	0.987

*Statistical significance was tested by independent t-test

Abbreviation : Hs : hypochondriasis ; D : depression ; Hy : hysteria ; Pd : psychopathic deviate ; Mf : masculinity-femininity ; Pa : paranoia ; Pt : psychasthenia ; Sc : schizophrenia ; Ma : hypomania ; Si : social introversion

가 , “ ” 9)10) 가 11) , 2 12) , 1 13) 가 “ The Psychiatric Status Rating Scale for Bulimia Nervosa ” 14) Ma - . DSM - 2 3 2 가 3 가 1979 Russell¹⁵⁾ Russell

.²⁵⁾ 가 가
 . Christopher²⁶⁾ 102
 104
 46% 87% .¹²⁾¹³⁾¹⁶⁻¹⁸⁾
 ,
 34% 56% 가 ,
 .¹¹⁾¹²⁾¹⁷⁾¹⁹⁾²⁰⁾ , 가 ,
 가 , 가
 .²¹⁾ 가
 가 ,¹²⁾²⁴⁾²⁵⁾
 가 ,
 .²²⁾ 가 , ,
 가 ,²⁷⁾
 가 가 ,²³⁾
 가 가 ,
 .¹⁰⁾¹³⁾¹⁶⁾ 가 가²⁴⁾²⁸⁾
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 가 ,
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 가
 .¹¹⁾¹²⁾ 가
 .²⁸⁾
 .²⁴⁾²⁵⁾
 가
 . Fran- 가 Lacey²⁹⁾ Herzog³⁰⁾
 cisco²¹⁾ 가 가 ,
 , 가 가 ,
 .³¹⁾
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 thiazide
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 가 , 가 ,
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가
 . Hsu Holder 32)
 가
 Collings King 22)
 가
 가
 50%
 가
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 (ineffectiveness)
 23),
 EDI - 2
 ineffectiveness, interoceptive awareness
 가가
 가
 33)
 가
 34)
 (low cohesion),
 가
 , Reiss
 11)
 가,
 가
 1/3
 80%
 가 24.8(±3.3)

참고문헌

- 1) **American Psychiatric Association** (1994) : Diagnostic and Statistical Manual of Mental Disorders. 4th ed, Washington DC, American Psychiatric Press, pp545-550
- 2) **Kaplan HI, Sadock BJ** (1998) : Synopsis of Psychiatry. 8th ed, Baltimore, Williams and Wilkins, pp727-731
- 3) **Fairburn CG, Beglin SJ** (1990) : Studies of the epidemiology of bulimia nervosa. Am J Psychiatry 147 : 401-408
- 4) **Johnson C, Tobin DL, Enright A** (1989) : Prevalence and clinical characteristics of borderline patients in a eating-disordered population. J Clin Psychiatry 50 : 9-15
- 5) 김준기 (1997) : 폭식증의 인지행동치료. 대한정신약물학회지 8 : 23-41
- 6) **Garner DM, Olmsted MP** (1984) : The Eating Disorder Inventory manual. Odessa, FL, Psychological Assessment Resources
- 7) **Hathaway SR, Mckinley JC** (1967) : Minnesotal Multiphasic Personality Inventory Manual, Revised ed, New York, Psychological Corporation
- 8) **Marion P, Olmsted AS, Kaplan W, Rockert, Maria J** (1996) : Rapid responders to intensive treatment of bulimia nervosa. Int J Eat Disord 19 : 279-285
- 9) **Garner DM** (1987) : Psychotherapy outcome research with bulimia nervosa. Psychother Psychosom 48 : 129-140
- 10) **Maddocks SE, Kaplan AS** (1991) : The prediction of treatment response in bulimia nervosa : a study of patient variables. Br J Psychiatry 159 : 846-849
- 11) **Reiss D, Sabine E** (1995) : Bulimia nervosa : 5-year

- social outcome and relationship to eating pathology. *Int J Eat Disord* 18 : 127-133
- 12) **Fahy TA, Russell GF**(1993) : Outcome and prognostic variables in bulimia nervosa. *Int J Eat Disord* 14 : 135-145
 - 13) **Davis R, Olmsted MP, Rockert W**(1992) : Brief group psychoeducation for bulimia nervosa : prediction of clinical outcome. *Int J Eat Disord* 11 : 205-211
 - 14) **Jerzog DB, Sacks NR, Keller MB, Lavori PW, Von Ranson KB, Gray HM**(1993) : Patterns and predictors of recovery in anorexia nervosa and bulimia nervosa. *J Am Acad Child Adolesc Psychiatry* 32 : 835-842
 - 15) **Russell GF**(1979) : Bulimia nervosa : an ominous variant of anorexia nervosa. *Psychol Med* 9 : 429-448
 - 16) **Maddocks SE, Kaplan AS, Woodside DB, Langdon L, Piran N**(1992) : Two year follow-up of bulimia nervosa : the importance of abstinence as the criterion of outcome. *Int J Eat Disord* 12 : 133-141
 - 17) **Olmsted MP, Kaplan AS, Rockert W**(1994) : Rate and prediction of relapse in bulimia nervosa. *Am J Psychiatry* 151 : 738-743
 - 18) **Pyle RL, Mitchell JE, Eckert ED, Hatsukami D, Pomeroy C, Zimmerman R**(1990) : Maintenance treatment and 6-month outcome for bulimic patients who respond to initial treatment. *Am J Psychiatry* 147 : 871-875
 - 19) **Fairburn CG, Norman PA, Welch SL, O'Connor ME, Doll HA, Peveler RC**(1995) : A prospective study of outcome in bulimia nervosa and the long-term effects of three psychological treatments. *Arch Gen Psychiatry* 52 : 304-312
 - 20) **Bassoe HH**(1990) : Anorexia/bulimia nervosa : the development of anorexia nervosa and of mental symptoms. treatment and the outcome of the disease. *Acta Psychiatrica Scand* 361 suppl : 7-13
 - 21) **Francisco J**(1998) : Outcome of bulimia nervosa : prognostic indicators. *J Psychosom Res* 45 : 391-400
 - 22) **Collings S, King M**(1994) : Ten-year follow-up of 50 patients with bulimia nervosa. *Br J Psychiatry* 164 : 80-87
 - 23) **Baell WK, Wertheim EH**(1992) : Predictors of outcome in the treatment of bulimia nervosa. *Br J Clin Psychol* 31 : 330-332
 - 24) **Rossiter EM, Agras WS, Telch CF, Schneider JA**(1993) : Cluster B personality disorder characteristics predict outcome in the treatment of bulimia nervosa. *Int J Eat Disord* 13 : 349-357
 - 25) **Sohlberg S, Norring C, Holmgren S, Rosmark B**(1989) : Impulsivity and long-term prognosis of psychiatric patients with anorexia nervosa/bulimia nervosa. *J Nerv Ment Dis* 177 : 249-258
 - 26) **Christopher G, Fairburn DM**(1998) : Risk factors for binge eating disorder. *Arch Gen Psychiatry* 55 : 425-432
 - 27) **Wonerlich SA, Fullerton D, Swift WJ, Klein MH**(1994) : Five-year outcome from eating disorders : relevance of personality disorders. *Int J Eat Disord* 15 : 233-243
 - 28) **Wilson GT, Rossiter E, Kleifield EI, Lindholm L**(1986) : Cognitive-behavioral treatment of bulimia nervosa : a controlled evaluation. *Behav Res Ther* 24 : 277-288
 - 29) **Lacey JH**(1983) : Bulimia nervosa, binge eating, and psychogenic vomiting : a controlled treatment study and long term outcome. *BMJ* 286 : 1609-1613
 - 30) **Herzog DB, Keller MB, Lavori PW, Sacks NR**(1991) : The course and outcome of bulimia nervosa. *J Clin Psychiatry* 52 suppl : 4-8
 - 31) **Strasser TJ, Pike KM, Walsh BT**(1992) : The impact of prior substance abuse on treatment outcome for bulimia nervosa. *Addict Behav* 17 : 387-395
 - 32) **Hsu LK, Holder D**(1986) : Bulimia nervosa : treatment and short-term outcome. *Psychol Med* 16 : 65-70
 - 33) **Blouin JH, Carter J, Blouin AG, Tener L, Schnare HK, Zuro C, Barlow J, Perez E**(1994) : Prognostic indicators in bulimia nervosa treated with cognitive-behavioral group therapy. *Int J Eat Disord* 15 : 113-123
 - 34) **Fallon BA, Sadik C, Saoud JB, Garfinkel RS**(1994) : Childhood abuse, family environment, and outcome in bulimia nervosa. *J Clin Psychiatry* 55 : 424-428

Prognostic Factors in Bulimia Nervosa

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Objective : Over the last few years there has been growing concern about bulimia nervosa in Korea, but there was only a few clinical study, especially about outcome and predictors. CBT combined with pharmacotherapy has been recognized as the most effective short-term treatment modality, but there was nonresponders. The purpose of this paper is to examine the factors that influence treatment response and outcome in patients with bulimia nervosa. The identification of prognostic factors in bulimia nervosa will help clinicians to deliver the most appropriate type of initial treatment to patients.

Method : The subjects were 62 patients from the outpatients of Mind & Mind psychiatric clinic, who had been previously evaluated by EDI-2 and MMPI. The sociodemographic data, disease progress, past history, family history, BMI, EDI-2 and MMPI were variables assessed. All patients received a 12-week course of CBT combined with pharmacotherapy (fluoxetine 20 -60mg/d). Responders and non-responders group were compared with each variables. Responders were defined as patients who had maximum symptom frequencies of three or less during the last 4 weeks of treatment.

Result : Among 62 patients, responders were 32 and non-responders were 30. There was no difference in sociodemographic variables such as age, education level, job, marriage. As a result of comparing the two groups, non-responders were differentiated by their higher frequency of binge eating vomiting, history of suicide attempt, family history of psychiatric illness and use of laxatives or diuretics. And among the subscale of EDI-2, there were significant high scores in bulimia, ineffectiveness, interoceptive awareness.

Conclusion : The findings suggest that frequency of binge eating vomiting, history of suicide attempt, family history of psychiatric illness, and use of laxatives or diuretics could be prognostic factors in patients with bulimia nervosa.

KEY WORDS : Bulimia nervosa · Prognostic factors.