

주정의존 환자에서 초발연령에 따른 β -Endorphin의 반응*

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The Relation of Onset-Age and β -Endorphin Levels in Alcohol Dependence*

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ABSTRACT

Objectives : To evaluate the relation of onset-age and plasma level of β -endorphin, Ethanol, β -endorphin, cortisol and blood glucose were compared in 48 male alcoholics and 29 normal controls

Methods : Alcoholics are divided into two groups by onset-age of alcoholism. Blood samples were obtained before and after 0.75gm/kg of ethanol consumption at the 7th admission day.

Results :

- 1) The ratio of onset-age before 25 years to after 25 years of the patient group was 2 to 3.
- 2) There was no significant difference in age at admission between two patient groups.
- 3) There was no significant difference in change of plasma ethanol levels among three groups.
- 4) There was no significant difference in change of plasma β -endorphin levels among three groups.
- 5) There was no significant difference in change of plasma cortisol level among three groups.
- 6) There was no significant difference in change of fasting blood sugar level among two patient groups.

KEY WORDS : Alcoholism · Onset-age · β -Endorphin.

서론

, DSM - (American Psychiatric Association 1994)

가

, ICD - 10(World Health Organization 1992)

. WHO

1997 10

가

Department of Psychiatry, College of Medicine, Soonchunhyang University, Chun-an, Korea

(1994)

21.73%,

22.39%

21.98%

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12.06%,

9.92%

† : , 330 - 100 , 23 - 20
) (0417) 570 - 2281,) (0417) 574 - 7992

Helzer (1988)

(16.6%),

(18.5%),

(12.6%),

(7.4%)

man (1996) 2 가

Brown(1994) A 가

Jellinek(1960) , B ,가 ,

Epstein (1995) (binge), (episodic), (sporadic), (st-eady) 가

Schuckit (1969) . Goodwin(1979) 가 , ,

Winokur (1971) 가 3 4 ,

Tomosovic(1974) (binge drinker) (bi- ginge drinker)가 가

Zucker(1987) 가 가 3 4 가

Hallman (1996) 2 가 , Virkkunen (1997) 2 serotonin

Hallman (1996) Blum (1991) D2 Dopamine 2 , Smi-

(association) AI th (1992) Dopamine 2

Bohman (1987) Cloninger (1988) 1 가 Myers(1989) Haber (1995) do-

2 25 , , - pamine tetrahydroisoquinoline(TIQ) tetrahydro- -carboline(THBC) TIQ opiate 가

2 25 , , opioid . Gianoulakis de Waele(1994), Gianoulakis (1996) 가

Irwin (1990) Hall- 가 -endorphin

가 , Vescovi (1992) 48 25 25
 - endorphin
 6 29 25
 opioid 19 (39.6%), 25
 가 29 (60.4%)
 가 opioid 46.7 ± 9.9 , 51.2 ± 12.8
 32.0 ± 6.9
 opioid
 Gianoulakis(1996) 가
 - endorphin 가
 opioid alcohol , - endorphin , cortisol ,
 opioid alcohol 0.75gm/kg 45
 naltrexone 12 O' Malley (1996)
 naltrexone 12 9 alcohol , - endorphin , corti -
 , 12 6 sol , alcohol 0.75gm/kg
 4 naltrexone 45
 SAS t -
 5, 6 가 ANOVA
 - endorphin
 opioid , opioid 25 가 19 , 25 가 29
 2 : 3 25
 opioid Herz(1997) 45.7 ± 9.9 , 25
 가 , naltrexone 51.2 ± 12.8 , 32.0 ± 6.9
 opioid 25
 3.21 ± 1.44mg/dl 73.25 ± 29.75mg/dl(1),
 25 3.46 ± 2.45mg/dl 88.51
 - endorphin ± 33.41mg/dl(2), 0.52 ± 2.14mg/dl 57.
 - endorphin 64 ± 28.88mg/dl (3)
 (Akil 1984). ACTH - endor - 가 .
 phin 가 가 (4).
 cortisol - endorphin 25 -
 가 cortisol endorphin 41.37 ± 35.71pg/ml 36.59 ± 24.82
 가 cortisol pg/ml (1), 25
 opioid 52.54 ± 48.34pg/ml 46.14 ± 53.04
 pg/ml (2),
 14.09 ± 4.86pg/ml 13.45 ± 4.43pg/ml
 (3).
 (4).
 연구대상 및 방법
 1. 연구대상 25 co -
 1996 8 1997 7 rtisol 9.70 ± 4.08 µg/ml 8.04 ± 1.80 µg/ml
 DSM - (American Ps - (1), 25
 ychiatric Association, 1994) 7.54 ± 3.07 µg/ml 7.05 ± 2.73 µg/ml

Table 1. Differences in endorphin, cortisol, alcohol, fasting blood sugar of the early onset alcoholics(N=19)

	Alcohol consumption		p-value*
	Before	After	
Endorphin(pg/ml)	41.37 ± 35.71	36.59 ± 24.82	NS
Cortisol(μ g/ml)	9.70 ± 4.08	8.04 ± 1.80	NS
Alcohol(mg/dl)	3.21 ± 1.44	73.25 ± 29.75	p<0.05
Fasting blood sugar(mg%)	94.65 ± 17.07	93.65 ± 21.22	NS

*T-test

Table 2. Differences in endorphin, cortisol, alcohol, fasting blood sugar of the late onset alcoholics(N=29)

	Alcohol consumption		p-value*
	Before	After	
Endorphin(pg/ml)	52.54 ± 48.34	46.10 ± 53.00	NS
Cortisol(μ g/ml)	7.54 ± 3.07	7.05 ± 2.73	NS
Alcohol(mg/dl)	3.46 ± 2.45	88.51 ± 33.41	p<0.05
Fasting blood sugar(mg%)	105.81 ± 14.73	105.19 ± 12.23	NS

*T-test

Table 3. Differences in endorphin, cortisol, alcohol of the normal controls(N=29)

	Alcohol consumption		p-value*
	Before	After	
Endorphin(pg/ml)	14.19 ± 4.86	13.45 ± 4.43	NS
Cortisol(μ g/ml)	5.43 ± 3.64	5.16 ± 3.13	NS
Alcohol(mg/dl)	0.57 ± 2.14	57.64 ± 28.88	p<0.05

*T-test

Table 4. Differences among normal controls, early and late onset alcoholics

	Change after alcohol consumption			p-value*
	Control	Early onset	Late onset	
Endorphin(pg/ml)	0.75 ± 2.25	4.80 ± 14.30	6.40 ± 24.30	NS*
Cortisol(μ g/ml)	0.18 ± 3.05	1.66 ± 4.02	0.49 ± 2.50	NS*
Alcohol(mg/dl)	57.10 ± 27.60	70.00 ± 29.20	85.10 ± 32.00	NS*
Fasting blood sugar(mg%)	0.75 ± 2.25	4.80 ± 14.30	6.40 ± 24.30	NS*

*ANOVA

**T-test

(2), 5.34 ± 3.64 μg/ml
 (3). 5.16 ± 3.13 μg/ml
 (4).
 25
 94.65 ± 17.07mg% 93.65 ± 21.22mg%
 (1), 25
 105.81 ± 14.73mg% 105.19 ± 12.37mg%
 (2).
 (4).

고찰

가
 (Cadoret 1985 ; Picken 1995 ; Agarwal 1997).
 Gianoulakis (1996) 가
 - endorphin 가 , Herz(1997)
 opioid naltrexone
 opioid 가
 opioid
 Bohman (1987) Clonin -
 ger (1988) 25 25
 alcohol , - endorp -
 hin , cortisol ,
 25 가 19 , 25
 29 2 : 3
 25 46.7 ± 9.9 ,
 25 51.2 ± 12.8
 , 32.0 ± 6.9 . 25
 23 25 23
 Schonfeld Dupree(1991) 25
 25 가
 , 25
 25 가
 . Va -
 lladolid (1995)
 가
 17
 25
 3.21 ± 1.44mg/dl 73.25 ± 29.75mg/dl
 가 , 25 3.46 ± 2.45mg/dl
 88.51 ± 33.41mg/dl 가 , 0.52
 ± 2.14mg/dl 57.67mg/dl 가
 15 , 45 , 120 , 180
 45 가 가

Gianoulakis (1996) 45 . (1987) Schuckit (1988) 가 . Schuckit
가 . 가 cortisol
25 - 가 , ACTH
endorphin 41.37 ± 35.71pg/ml 36.59 ± 24.82 cortisol
pg/ml ,
25 52.54 ± 48.34pg/ml ACTH cortisol
46.14 ± 53.04pg/ml 가
, 14.19 ± 4.86pg/ml 13.
45 ± 4.43pg/ml .
. Gian - ACTH cortisol 가 가
oulakis (1996) 가 가 . Rivier (1983)
- endorphin ACTH corticosterone
가 endorphin 가 가 가 , anticorticotropin - releasing factor(CRF)
25 , ACTH corticosterone 가
25 , - - (hypotha -
- endorphin 가 lamic - pituitary - adrenal axis) CRF
. Gianoulakis (1996) 0.25 ,
gm/kg, 0.50gm/kg, 0.75gm/kg ACTH corticosteroid
- endorphin 0.75gm/kg Gianoulakis (1996)
45 가 , 가 가
가 가 cortisol 가
- endorphin 가 가 .
25 25
- endorphin 25
가 , - endo - 94.65 ± 17.07mg% 93.65 ± 21.22mg% , 25
rphin 가 . 105.81 ± 14.73mg% 105.19
- endorphin 가 ± 12.37mg% ,
. Ivanikov(1992)
가
. Gianoulakis (1996)
- endorphin
9 가 가 가 - endorphin
가 가 가 가
25 co - 요 약
rtisol 9.70 ± 4.08 µg/ml 8.04 ± 1.80 µg/ml 29 48
, 25 7 9 0.75gm/kg
2.73 µg/ml 7.54 ± 3.07 µg/ml 7.05 ± - endorphin , alcohol , cortisol
, 5.34 ± 3.64 µg/ml 5.16 ± 3.13 ,
µg/ml 1) 25 25 2 :

3	.	
2)	25	25
	가	.
3)	25	25
가	.	
4)	25	25
	가	- endorphin
5)	25	25
	가	cortisol
6)	25	25
	가	가
중심 단어 :	.	.

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