

정신분열병과 기분장애 환자의 언어적 기억능력과 기억과정의 특성에 대한 연구*

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Verbal Memory Function and Characteristics of Memory Process in Schizophrenia and Affective Disorder*

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ABSTRACT

Objectives : This study was to compare verbal memory ability among patients with schizophrenia, bipolar manic patients and unipolar depressive patients, and to understand their characteristics of memory process.
Methods : All subjects were hospitalized patients and had been interviewed by using the Structured Clinical Interview for DSM - IV(SCID). Schizophrenic patients(N=40), bipolar manic patients(N=17), and unipolar depressive patients(N=20) were assessed with K - AVL T for verbal memory and with K - WAIS for verbal IQ. Three groups were compared regarding total immediate recall, delayed recall, delayed recognition, learning curve, memory retention, and retrieval efficiency under controlled verbal IQ. Multiple regression analysis was performed to find which clinical factors have an influence on verbal memory ability.

Results : In MANCOVA, differences of verbal memory test scores among the groups were statistically significant($F=1.800, p<.05$). In post hoc analysis, Patients with schizophrenia and bipolar mania showed poorer performance in immediate recall, delayed recall, delayed recognition, retrieval efficiency than unipolar depressive patients. And schizophrenics performed poorly in delayed recall, delayed recognition, retrieval efficiency than nonpsychotic affective disorder group, but no difference in total immediate recall, delayed recall, delayed recognition, retrieval efficiency between the schizophrenic group and the psychotic affective group.

Conclusions : These results partially confirm previous reports of verbal memory ability among major psy-

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chiatric disorders. Our results showed that psychotic symptoms were related with verbal memory, and longer duration of illness was related with poorer performance in schizophrenia and unipolar depression.

KEY WORDS : Verbal Memory Ability · Memory Process · K - AVLT · SPR · Mania · Depression.

서론

(functional magnetic resonance imaging : f MRI)

가

⁶⁾

(PET)

Weiss ⁷⁾

¹⁾²⁾

³⁾

(encoding)

(consolidation)

6 MRI Bearden⁸⁾

(retrieval)

(recognition)

(recall)

(organizational strategy)

가

(prefrontal)

(mesial temporal lobe) (hippocampus)

⁴⁾

(frontal - subcortical circuit)가

⁵⁾

⁹⁾

가 3 (17.3%)

2 (10%)

9)

2. 연구방법

1) 임상적 증상 평가도구

PANSS(Positive and Negative Symptom Scale),¹²⁾ BPRS(Brief Psychiatric Rating Scale)¹³⁾ YMRS(Young Mania Rating Scale),¹⁴⁾ BPRS HDRS(Hamilton Depression Rating Scale)¹⁵⁾ 가 .

2) 인지기능 평가도구

(1) K - AVLT(Korean Auditory Verbal Learning Test)

가 K - AVLT

(Korean Auditory Verbal Learning Test)

. K - AVLT Andre Rey가 Auditory Verbal Learning Test¹⁶⁾

K - AVLT 15

(immediate recall)

5 가 , 20

(delayed recall)

(delayed recognition)

K - AVLT 3 가 ,

(learning curve) 5 1

가

가

(memory retention) 5 가

(retrieval efficiency)

가

가

(2) K - WAIS(Korean Wechsler Adult Intelligence Scale)

WAIS - R Wechsler가

(1992)¹⁷⁾

가 .

연구대상 및 방법

1. 연구대상

2003 3 2005 7

DSM - (Diagnostic and Statistical Manual of Mental disorders - 4th edition)¹⁰⁾

(Structured Clinical Interview for DSM - IV)¹¹⁾

, (),

가 .

12 () ,

18 60 .

가

2

가가 ,

40 (24, 16), 17 (7,

10), 20 (11, 9) .

, (paranoid type) 31 (76.3%), (undifferentiated type)

9 (23.7%) .

가 .

12 (70.6%),

2 (11.7%) ,

3) 연구절차

가, 2 K - AVLT (F=4.76, p=0.012)
 K - WAIS (F=3.775, p=.028)가 (1).
 가 .
 (MAN-
 COVA) (MANCOVA)
 가 가 Pillai 's
 test (F=2.700, p=.074)

2. 각 질환군간 언어적 기억 기능 비교

(Stepwise Multiple Regression Analysis)
 SPSS 10.0

MANCOVA ,
 (Pillai 's test=.607, F=2.217, p=0.004)

결 과

(F=6.379, p=.002)

1. 인구통계학적 및 임상적 특징

(F=5.603 p=0.006),

Table 1. Demographic and clinical characteristics of SPR, Mania, MDD

Variables	SPR(N=40)		Mania(N=17)		MDD(N=20)		ANOVA	
	M	SD	M	SD	M	SD	F	p
Sex	Male	24	7		11			
	Female	16	10		9			
Age	31	7.35	35	8.14	29.85	7.53	2.37	ns
Education(years)	12.8	1.91	13.71	2.11	12.45	1.67	2.15	ns
Onset of age	27.29	7.4	31.6	10.05	28.63	6.56	1.59	ns
Number of onset*	1.21	1.39	2.57	2.56	0.62	1.19	4.77	0.012
Number of administration	0.68	1.141	1.6	2.03	0.38	0.72	3.76	0.03
Duration of illness(present)	3.96	7.06	1.18	0.51	2.65	2.75	1.02	ns
Duration of illness(total)	43.81	37.4	67.73	90.94	24.68	28.89	2.02	ns
PANSS	positive sx.	25.44	7.26	.	.	.	.
	negative sx.	19.85	2.53	.	.	.	.
	total score	90.71	19.6	.	.	.	.
YMRS score	.	.	32.53	12.06	.	.		
BPRS score	.	.	24.6	11.38	14.57	6.47		
HDRS score	.	.	.	.	25.36	5.54		

* : Number of onset : total number of episode

Table 2. Comparisons of the scores of K-AVLT among SPR, Mania, MDD

Test Instrument	SPR(N=40)	Mania(N=17)	MDD(N=20)	Group difference		Post-hoc	
				F	p-Value		
K-WAIS Verbal IQ	100.17(14.16)	108.82(14.63)	99.5 (12.83)	2.7	0.074		
K-AVLT	Trial 1	10.06(3.04)	10.85(2.76)	11.47(2.34)	3.064	0.052	
	Trial 2	8.58(2.98)	9.85(4.06)	11.21(2.82)	6.605	0.002**	D>S,M [†]
	Trial 3	8.39(3.18)	8.00(3.76)	10.42(2.93)	5.138	0.005**	D>S,M
	Trial 4	7.83(4.08)	9.46(3.86)	10.32(3.65)	3.716	0.003**	D>S
	Trial 5	8.47(3.21)	9.00(3.87)	10.21(2.80)	3.472	0.017*	D>S
	Total immediate recall	40.78(10.69)	40.38(8.80)	49.21(9.70)	6.379	0.002**	D>S,M
	Delayed recall	7.44(3.07)	7.46(4.16)	9.84(2.81)	5.603	0.006**	D>S,M
	Delayed recognition	8.75(3.30)	10.23(3.03)	10.79(2.20)	3.4	0.039*	D, M>S
	Learning curve	42.93(30.58)	40.29(34.63)	40.88(38.1)	1.334	0.271	
	Memory retention	36.14(29.57)	31.12(21.71)	40.57(31.44)	0.375	0.689	
	Retrieval efficiency	24.40(23.68)	20.58(20.63)	41.16(30.58)	3.799	0.028**	D>S,M

* : p<05, ** : p<01, *** : p<001

† S : Schizophrenia, M : Mania, D : Depression

Table 3. Comparisons of the scores of K-AVLT among SPR, psychotic and nonpsychotic affective disorder

Test Instrument	SPR(N=40)	Combined affective disorder		Group difference		Post-hoc	
		PA(N=12)	NA(N=14)	F	p-Value		
K-WAIS Verbal IQ	100.17(14.16)	109.69(9.18)	102.32(15.18)	2.34	0.014*	PA>NA, S [†]	
K-AVLT	Trial 1	10.06(3.04)	11.82(1.94)	11.35(2.45)	3.064	0.054	
	Trial 2	8.58(2.98)	11.11(2.76)	11.05(3.31)	6.605	0.002**	PA, NA>S
	Trial 3	8.39(3.18)	8.73(3.29)	10.30(3.25)	5.138	0.008**	NA>PA, S
	Trial 4	7.83(4.08)	10.00(3.66)	10.45(3.61)	3.716	0.030*	PA, NA>S
	Trial 5	8.47(3.21)	10.72(3.13)	10.00(2.70)	3.472	0.037*	PA, NA>S
	Total immediate recall	40.78(10.69)	42.91(8.61)	48.90(9.54)	7.78	0.001**	NA>PA, S
	Delayed recall	7.44(3.07)	8.54(4.23)	9.65(2.58)	5.603	0.006**	NA>S
	Delayed recognition	8.75(3.30)	11.36(2.46)	10.60(2.16)	3.4	0.039*	NA, PA>S
	Learning curve	42.93(30.58)	48.25(37.52)	47.52(38.1)	1.334	0.271	
	Memory retention	36.14(29.57)	24.70(24.11)	40.13(29.34)	0.375	0.681	
	Retrieval efficiency	24.40(23.68)	22.34(26.52)	39.97(28.23)	3.799	0.028*	NA>PA, S

* : p<05, ** : p<01, *** : p<001

† S : Schizophrenia, PA : Psychotic Affective disorder, NA : Nonpsychotic Affective disorder

(F=3.4, p=0.039),

가 가
(F=3.799, p=0.028,

3. 정신분열병, 정신병적 증상을 동반한 기분장애, 정신병적 증상이 없는 기분장애군 간 언어적 기억 능력 비교

(Pillai 's test=.605,

F=2.231, p=.006).

Table 4. Stepwise multiple regression analysis of SPR, Mania, MDD

	Adjusted R ²	Beta	t	F
Schizophrenia				
Retrival efficiency	0.123			4.930*
Duration of illness(total)		- 0.393	- 2.22	
Major depressive disorder				
Total immediate recall	0.908			40.395**
Duration of illness(total)		- 5.688	- 6.356	
Delayed recall	0.721			11.355**
Number of administration		- 0.889	- 3.37	
Delayed recognition	0.971			67.704**
Duration of illness(present)		- 0.928	- 10.873	
Number of administration		- 0.375	- 4.396	

* : p<.05, ** : p<.01

(F=7.780, p=0.002),

90.8%

가 (F= 5.603, p=0.006),

(F= 72.1%

가

97.1%

0.039),

(F=3.340, p=

가

고 찰

(F=3.799, p=0.028)(3).

4. 언어적 기억 기능과 임상적 변인과의 상관 및 회귀분석

가

(Stepwise Multiple Regression Analysis) (4).

PANSS

10.3%

, BPRS

YMRS

가

BPRS

19)

HDRS

33)
,
34) Fossati 35)

가

가

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가

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가,

가

가 36)

2

가 37)
risperidone 2

haloperidol

38)

가

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