

정신분열병 환자의 기억장애

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최태규 · 이홍식 · 김찬형

Memory Impairment in Patients with Schizophrenia

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Objectives : The memory function and its impairment in patients with schizophrenia have recently gathered more interests nowadays. Recent researches have investigated the relationship between memory function and symptoms of schizophrenia, even by dividing them into positive and negative symptoms.

It is proposed, in patients with schizophrenia, that the positive symptoms are related to the inability to monitor internally produced symptoms, while the negative symptoms are likely due to the deficit in memory response, that results in a failure to respond.

The object of this study is to investigate the relationship between the positive symptoms of schizophrenia and erroneous memory, as well as between the negative symptoms and memory insufficiency, whereby confirming the above-mentioned psychopathological model of schizophrenia.

Methods : In this study, 39 patients with schizophrenia were evaluated with the Positive and Negative Symptom Scale (PANSS) and Hamilton Rating Scale for Depression (HAM-D). They also completed the following memory task; During the free-recall and recognition memory task, sub-items of 'Intrusion', 'Perseveration', and 'False Alarm' were defined as 'Erroneous memory' and the memory efficiency was measured by the number of memory response. The correlations between the sub-items of 'Erroneous memory' and the total score of PANSS positive dimension, as well as between the memory efficiency and the total score of PANSS negative dimension were examined with Pearson product-moment coefficient.

Results : The results of this study showed a positive correlation between the positive symptoms and 'Intrusion' and between the positive symptoms and 'Perseveration'. In other words, more severe positive symptoms were associated the more 'Intrusion' and 'Perseveration'. On the other hand, no correlation was found between the positive symptoms and 'False Alarm'. Furthermore, a negative correlation was found between the negative symptoms and memory efficiency, whereby more severe negative symptoms accompanied more impaired memory efficiency.

Conclusion : The results of our study have been found to confirm the psychopathological model of schizophrenia, that the positive symptoms result from erroneous memory related to the reality monitoring and the negative symptoms result from the deficit of response. The interpretation of such results, however, should be limited to memory tasks, and further studies are necessary to examine whether our results can be generalized to other cognitive functions. (Schizophrenia Clinics 2003;6:137-144)

KEY WORDS : Schizophrenia · Positive symptom · Negative symptom · Memory impairment.

서론

(mnemonic organization)가 (encoding stage)

가

1,2)

3,4)

가

(recognition)

(free recall)

5)

Crow⁶⁾

Andreasen

Olsen⁷⁾

가

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가 32)

가 8)

가 9)

가 10,11)

가 (failure to respond)

가 (erroneous response)

가 12,13)

가 14)

가 15 - 17)

가 16)

가 18,19)

가 (external event)

가 (internal event)

가 (re-

가 (decision bias)

가 (false alarm)

가 가 10,25)

가 가

가 (internal stimuli)

가 26,27)

가 (moni-

가 28)

가 29 - 31)

Brebion

가 32)

가 (failure to respond)

가 (erroneous response)

가 12,13)

가 14)

가 15 - 17)

가 16)

가 18,19)

가 (external event)

가 (internal event)

가 (re-

가 (decision bias)

가 (false alarm)

가 가 10,25)

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가 (internal stimuli)

가 26,27)

가 (moni-

가 28)

가 29 - 31)

Brebion

연구 대상

1998 6 12

18 50

DSM -

1) , 2)

4 (DSM -)(American Psychiatry Association, 1994)

3) 12 , 4) 3

clozapine risperidone 가

1)

, 2)

, 3) 1

, 4) (,)

, 5) , 6)

, 7) 가

39

High Threshold Theory
(accuracy index Pr),³⁵⁾
Pr
(recognition efficiency)
(false alarm)

Two - High Threshold Theory
Br(response bias Br)
가 Br
가

분석방법
PANSS
Pearson

PANSS
Pearson

SPSS/PC+ (Ver 8.0)
0.05

결 과

인구학적 자료

39
가 24 (61.5%), 가 15 (38.5%)
가
13.9 ± 1.7
84.0 ± 65.9
가 3.7 ±
10.7 ± 15.6
39 29
10
15
clozapine

Table 1. Demographic characteristics and measure of symptoms of subjects (mean ± SD)

Gender (Male/Female)	24/15
Age (years)	30.3 ± 7.5
Education (years)	13.9 ± 1.7
Duration of illness (months)	84.0 ± 65.9
Number of admission	3.7 ± 3.1
Total duration of admission (month)	10.7 ± 15.6
PANSS*	
Total PANSS score	70.8 ± 16.1
Positive symptom score	16.5 ± 5.5
Negative symptom score	17.9 ± 4.8
General symptom score	36.5 ± 7.5
HAM-D[†] total score	18.6 ± 9.2

*PANSS : The positive and negative syndrome scale
† HRSD : Hamilton rating scale for depression

Table 2. Correlation between positive symptoms, negative symptoms, depressive symptoms and erroneous memory response

Method	HRSD [‡]	PANSS [§]	
		Positive	Negative
Free recall			
Intrusion	0.18	0.53 [†]	0.29
Perseveration	0.04	0.44*	0.05
Recognition			
False alarm	-0.02	0.24	-0.13

* : p<0.05, † : p<0.01, ‡ : HRSD ; Hamilton rating scale for depression, § : PANSS ; The positive and negative syndrome scale

20 risperidone

PANSS 70.8 ± 16.1
16.5 ± 5.5 , 17.9 ± 4.8
36.5 ± 7.5 . HAM - D
18.6 ± 9.2 (1).

양성 및 음성증상과 잘못된 기억반응간의 상관성

pearson
(r=0.53, df=39, p<0.001)
(r=0.44, df=39, p<0.005)

(2)

양성 및 음성증상과 기억의 효율성간의 상관성

pe-
arson
(r=

- 0.45, df=39, $P<0.005$).

고 찰

(poor efficiency)

(par-

가

tial correlation)

(r=

- 0.50, df=36, $p<0.005$)

($r = -0.33$, df=36, $p<0.05$)

가

28)

($r = -0.32$, df=

39, $p<0.05$)

가

(3).

양성 및 음성증상과 기억의 부호화간의 상관성

pearson

(superficial encoding)

36)

(categorization)

37)

($r = -0.37$,

가

df=36, $p<0.05$)(4).

Table 3. Correlation between positive symptoms, negative symptoms, depressive symptoms and memory sufficiency

Method	HRSD [‡]	PANSS [§]	
		Positive	Negative
Total responses of free recall	0.06	-0.17	-0.45 [†]
Recognition efficiency (Pr)	0.09	-0.19	-0.27
Implicit memory	-0.32*	-0.10	-0.35

* : $p<0.05$, † : $p<0.01$, ‡ : HRSD ; Hamilton rating scale for depression, § : PANSS ; The positive and negative syndrome scale

Table 4. Correlation between positive symptoms, negative symptoms, depressive symptoms and encoding of memory

Method	HRSD [‡]	PANSS [§]	
		Positive	Negative
Deep encoding	0.14	-0.16	-0.29
Superficial encoding	-0.17	-0.33*	-0.43 [†]

* : $p<0.05$, † : $p<0.01$, ‡ : HRSD ; Hamilton rating scale for depression, § : PANSS ; The positive and negative syndrome scale

32)

가

9)

(positron emission tomography)

가 42)

16,17)

28) Brebion

15 20 risperidone

clozapine risperidone 39

clozapine 4

가

가 chlorpromazine, clozapine, fluphenazine, haloperidol, risperidone

32)

Brebion³²⁾ 가

가

가 48)

49)

50)

가 43,44)

가 45)

가 46)

가 47)

13)

clozapine 15 risperidone 20

clozapine(12.1 ± 6.6) risperidone(17.2 ± 6.4)

가

(r = - 0.37, df=36, p< 0.05).

가 (p<0.05).

clozapine risperidone 48)

theory	Green	가	51)
(Hit rate)	Two - High Threshold	가	중심 단어 :
(False alarm rate)	Pr ³⁵⁾	가	REFERENCES
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