

# Fluoxetine과 Haloperidol의 병합투여시 정신병리 및 추체외로 증상의 변화

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## Changes of Psychopathology and Extrapyrimal Symptoms When Co-administering Fluoxetine and Haloperidol

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### ABSTRACT

**Objectives** : The authors have intended to know the drug interaction of fluoxetine and haloperidol when coadministering two drugs to the chronic schizophrenics by assessing the changes of positive, negative symptoms and extrapyramidal symptoms.

**Method** : We selected 38 patients, the chronic schizophrenics with no physical problems. they are randomly assigned to placebo group and drug group. And then, placebo or fluoxetine 20mg were administered to the subjects of each group during 8 week period. We have assessed their psychopathology and extrapyramidal symptoms using Positive and Negative Syndrome Scale(PANSS), Clinical Global Impression(CGI), Simpson-Angus Scale at 0, 2, 4, 6, 8 week during the period.

**Results** : 38 patients have completed the study during 8 weeks. 1) PANSS, CGI : no significant difference between groups and no significant change according to the times. 2) Simpson-Angus Scale : no significant changes.

**Conclusion** : When co-administering fluoxetine and haloperidol, there were no significant changes of psychopathology and extrapyramidal symptoms. These results suggest that it is safe to coadminister fluoxetine to schizophrenic patients with haloperidol treatment.

**KEY WORDS** : Fluoxetine · Haloperidol · Drug interaction.

### 서 론

(Selective Serotonin Reuptake Inhibitors ; SSRIs) fluoxetine

. Fluoxetine phenylprophylamine norfluoxetine

(Wong 1975). Norepinephrine

(H1),

(Kaplan Sadock 1991).

SSRIs

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11 가 (Bernstein 1995),

pine, valproic acid

50% 가

. Fluoxetine

가

carbamaze -

fluoxetine

가 (Grimsley 1991 ; Pearson 1990 ;  
Sovner 1991). diazepam fluoxet -  
ine diazepam 가 (Lemberger  
1988), fluoxetine verapamil diltiazem  
(Sternback 1991) , Goff (1990, 1991)  
fluoxetine

가 (1994)  
haloperidol fluoxetine haloperidol  
가 ,  
가 , sertraline  
(1994) haloperidol haloperidol  
가 , paroxetine  
haloperidol ( 1996).  
Goldamn Janecek(1990)  
fluoxetine  
(Goff 1990 ; Bacher Ru -  
skin 1991).

가  
haloperidol fluoxe -  
tine ,

## 대상 및 방법

### 1. 연구대상

DSM - -R (APA 1987)  
6  
가  
6  
2  
haloperidol 가  
38  
19  
6  
13

## 2. 연구방법

### 1) Fluoxetine의 병합투여

2  
haloperidol 가 haloperidol  
fluoxetine 20mg  
8  
(Kaplan Sadock 1991 ; Preskorn 1993).  
20mg  
(Kaplan Sadock 1991) 20mg  
, benztropin

### 2) 임상반응평가

가 Positive and Negative Syndr -  
ome Scale( PANSS) Clinical Global Impression(  
CGI) (Kay 1986). 가  
가 Simpson - Angus Scale  
(Simpson Angus 1970) 가  
baseline scale , 2 , 4 , 6 , 8

### 3) 통계 분석

repeated measure ANOVA

modified Bo -  
nferroni t - test t - test  
p<0.05

## 결 과

### 1. 인구학적 특성

38  
39.78 ± 7.93 , 38.57 ± 8.47  
, haloperidol 24.21 ± 17.10  
mg, 25.92 ± 20.77mg ,  
(Table 1).

### 2. 정신병리의 변화

8 PANSS CGI  
가 , (Ta -  
ble 2 - 5, Fig. 1 - 4).

### 3. 추체외로 부작용의 변화

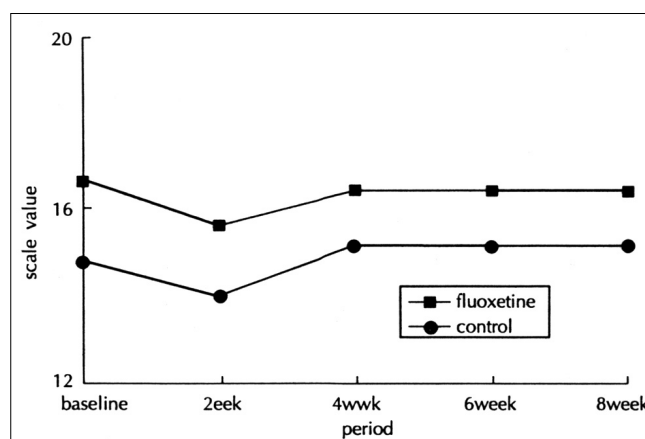
8 Simpson - Angus

**Table 1.** Characteristics of the patients entering the study

	Flouxetine group (N=19)	Control group (N=19)	
Sex (male : female)	13 : 6	13 : 6	NS
Age (years)	39.78 ± 7.93	38.57 ± 8.47	NS
Dosage of Haloperidol	24.21 ± 17.10	25.92 ± 20.77	NS
Weight(kg)	60.31 ± 6.64	63.68 ± 11.48	NS
Height(kg)	162.10 ± 6.19	164.00 ± 5.32	NS
Blood pressure			
Systolic	124.73 ± 12.18	121.05 ± 11.49	NS
Diastolic	76.84 ± 8.85	75.26 ± 7.72	NS
Pulse rate	92.21 ± 9.99	88.94 ± 9.96	NS

Student t-test, two-tailed

Each values are expressed as mean ± SD

**Fig. 1.** Comparison of PANSS positive scale value between the groups.**Table 2.** Comparison of PANSS positive scale score between the groups\*

	Baseline	2nd week	4th week	6th week	8th week
Floxtine** (N=19)	16.50 ± 5.35	15.25 ± 5.52	16.31 ± 3.09	16.19 ± 2.79	16.19 ± 2.79
Control** (N=19)	14.91 ± 1.64	13.96 ± 4.38	15.09 ± 1.38	15.09 ± 1.38	15.09 ± 1.38

\*Each values are expressed as mean ± SD \*\*Fluoxetine+Haloperidol group \*\*\*Placebo+Haloperidol group

A mixed model repeated measures ANOVA with group a between subjects factor and baseline, 2nd, 4, 6, 8th week as a within subjects factors.

Group effect : F=1.03, df=1/36, nonsignificant

Time effect : F=0.29, df=4/144, nonsignificant

Group x PANSS positive score interaction : F=0.32, df=4/144, nonsignificant

**Table 3.** Comparison of PANSS negative scale score between the groups\*

	Baseline	2nd week	4th week	6th week	8th week
Floxtine** (N=19)	19.31 ± 4.47	19.73 ± 4.85	19.21 ± 4.23	19.05 ± 4.23	18.31 ± 4.46
Control*** (N=19)	17.68 ± 5.89	17.47 ± 5.88	17.68 ± 5.62	17.47 ± 5.16	17.26 ± 4.87

\*Each values are expressed as mean ± SD \*\*Fluoxetine+Haloperidol group \*\*\*Placebo+Haloperidol group

A mixed model repeated measures ANOVA with group a between subjects factor and baseline, 2nd, 4, 6, 8th week as a within subjects factors.

Group effect : F=1.05, df=1/36, nonsignificant

Time effect : F=1.99, df=4/144, nonsignificant

Group x PANSS negative score interaction : F=0.89, df=4/144, nonsignificant

**Table 4.** Comparison of PANSS general scale score between the groups\*

	Baseline	2nd week	4th week	6th week	8th week
Floxtine** (N=19)	34.15 ± 6.16	34.10 ± 6.16	34.21 ± 6.44	34.15 ± 7.22	34.10 ± 7.21
Control*** (N=19)	31.68 ± 7.28	32.31 ± 7.68	31.84 ± 7.38	31.78 ± 8.10	31.52 ± 7.75

\*Each values are expressed as mean ± SD \*\*Fluoxetine+Haloperidol group \*\*\*Placebo+Haloperidol group

A mixed model repeated measures ANOVA with group a between subjects factor and baseline, 2nd, 4, 6, 8th week as a within subjects factors.

Group effect : F=1.03, df=1/36, nonsignificant

Time effect : F=0.29, df=4/144, nonsignificant

Group x PANSS general score interaction : F=0.32, df=4/144, nonsignificant

**Table 5.** Comparison of clinical global impression scale values between the groups\*

	Baseline	2nd week	4th week	6th week	8th week
Floxtine** (N=19)	4.31 ± 1.25	4.47 ± 1.17	4.47 ± 1.147	4.47 ± 1.21	4.47 ± 1.21
Control*** (N=19)	4.42 ± 1.30	4.42 ± 1.30	4.42 ± 1.30	4.42 ± 1.30	4.47 ± 1.34

\*Each values are expressed as mean ± SD \*\*Fluoxetine+Haloperidol group \*\*\*Placebo+Haloperidol group

A mixed model repeated measures ANOVA with group a between subjects factor and baseline, 2nd, 4, 6, 8th week as a within subjects factors.

Group effect : F=0.00, df=1/36, nonsignificant

Time effect : F=0.53, df=4/144, nonsignificant

Group x CGI score interaction : F=0.39, df=4/144, nonsignificant

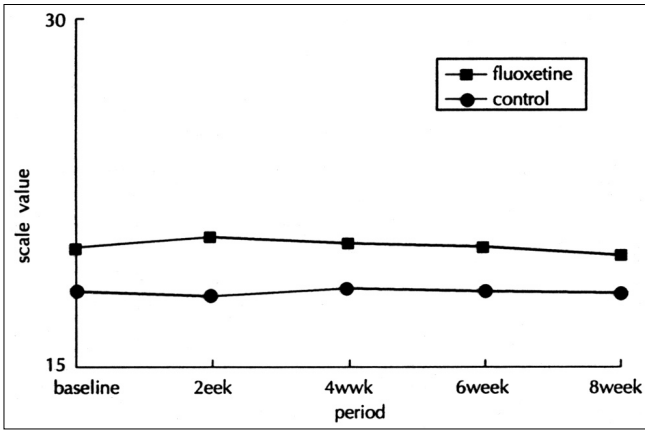


Fig. 2. Comparison of PANSS negative scale value between the groups.

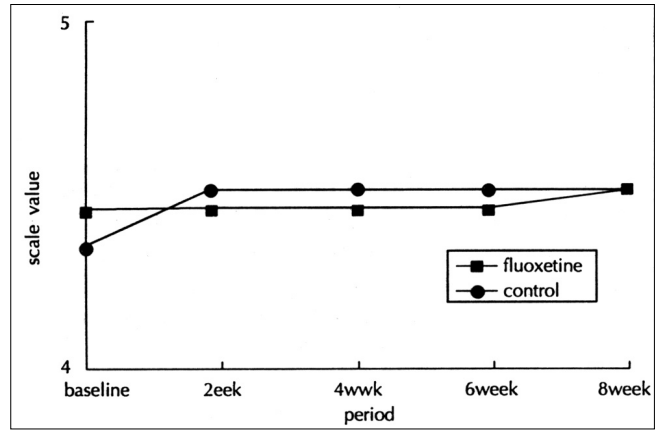


Fig. 4. Comparison of clinical global impression scale values between the groups.

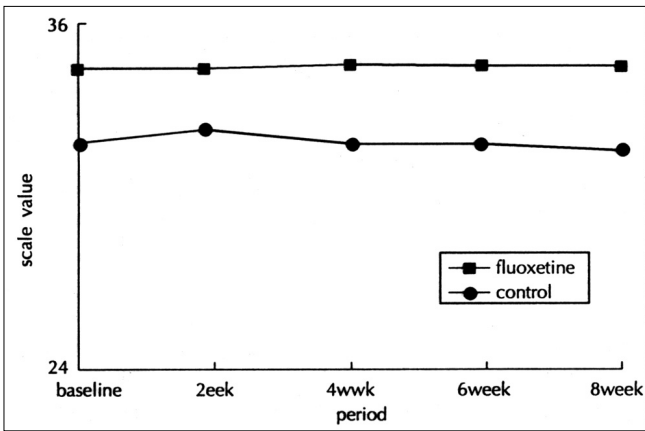


Fig. 3. Comparison of PANSS general scale value between the group.

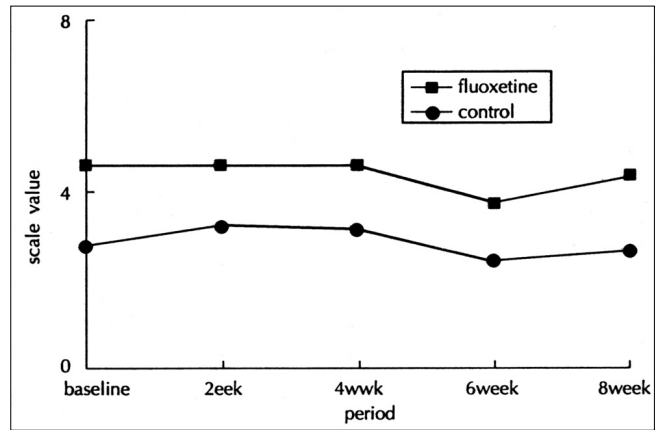


Fig. 5. Comparison of simpson-angus scale value between the groups.

Table 6. Comparison of simpson-angus scale values between the groups\*

	Baseline	2nd week	4th week	6th week	8th week
Flooxetine** (N=19)	4.68 ± 5.03	4.73 ± 5.07	4.73 ± 5.17	3.83 ± 5.74	4.47 ± 6.05
Control*** (N=19)	3.00 ± 4.42	3.36 ± 5.02	3.15 ± 5.25	2.42 ± 5.04	2.47 ± 5.12

\*Each values are expressed as mean ± SD \*\*Fluoxetine+Haloperidol group \*\*\*Placebo+Haloperidol group  
A mixed model repeated measures ANOVA with group a between subjects factor and baseline, 2nd, 4, 6, 8th week as a within subjects factors.

Group effect : F=0.98, df=1/36, nonsignificant

Time effect : F=2.06, df=4/144, nonsignificant

Group x Simpson-Anugs scale score interaction : F=0.22, df=4/144, nonisgnificant

가 , (Table 가 ,  
6, Fig. 5). 가 clozapine , risperidone (Chouinard 1993)  
고 찰  
5 - hydroxytryptamine 가 Goff (1990) fluox -  
etine  
가 (Gaddum 1954).  
para - chlorphenylalamine(cCPA) fenfluramine , fluoxetine  
(Stahl 1985)가 . Ames (1993) ha -

loperidol fluoxetine (1994)

haloperidol fluoxetine

가 (Goff 1990). Fluoxetine 5-HT2 down-regulation (Johnson 1991), (Melzter 1989)

cytochrome P450 IID6 haloperidol 가 가 . Fluoxetine benzodiazepine (Kaplan Sa-dock 1991), haloperidol (Goff 1991 ; Ames 1993). fluoxetine 가 / 가 (Aranow 1989 ; Ciraulo Shader 1990). fluoxetine (Coulter Pillans 1995). Haloperidol fluoxetine 39 가 (Tate 1989), (Fallon Liebowitz 1989 ; Bouchard 1989). (acute dystonia) (Reccoppa 1990 ; Black Uhde 1992). fluoxetine haloperidol 8 가 Goff(1990)

Ames(1993), (1994) . Fluoxetine (akathisia) (Lipinski 1989), 가 20mg fluoxetine 가 (Kaplan Sadock 1991)가 (steady state) 8 (Kaplan Sadock 1991 ; Preskorn 1993). , haloperidol

fluoxetine 가 (1994 ; Aranow 1989 ; Ciraulo Shader 1990 ; Coulter Pillans 1995)

haloperidol fluoxetine 가 , 20mg 가 가 , fluoxetine 8

haloperidol 가 , fluoxetine 가 .

**요 약**

38 haloperidol fluoxetine 8 , PANSS, CGI, Simpson - Angus 2, 4, 6, 8 가 . 가 1) 8 , 가 2) 8 가가

fluoxetine haloperidol 가 가 가 , haloperidol fluoxetine .

중심 단어 : . . .

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