

주의력결핍과잉행동장애 치료 약물 Methylphenidate IR의 순응도 연구*

COMPLIANCE STUDY OF METHYLPHENIDATE IR IN THE TREATMENT OF ADHD

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목 적 : (Attention Deficit Hyperactivity Disorder : ADHD) 가
(methylphenidate - immediate releasing form : MPH - IR) 가 ,
1 가 ,

방 법 : 2002 9 2002 12 , DSM - ADHD MPH -
IR , 100
2003 3 4
6 2003 10 , 100 , 가 ,
1 가 ,

결 과 : 1) 6 , 2003 3 ,
60% , 81% , 43% . 2) 1
2003 10 , 62% , 38%
. 3) () ()
ADHD
가 ,
가 가
(2003 3 가)

결 론 : ADHD MPH - IR 1
62% , ,
가 가 ,
가

중심 단어 : Methylphenidate - IR.

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서론

disorder : / (attention deficit hyperactivity disorder : ADHD)

7 1 가

ADHD

ADHD 가

가

2002 9 ADHD

2002 12 MPH - IR

1).

5~10%

, 2003 3~4

2003 10

2~3%

7.5%

가

2)3).

MPH - IR

가

연구방법

가

40~ 60%

ADHD

1. 연구대상 선별

2002 9 12

1

DSM -

ADHD

가

4),

, MPH - IR

ADHD

가

가 가

MPH - IR

2

가

5). 가

100

(Table 1).

가

(methylphenidate immediate release form : MPH - IR)

MPH -

2. 선별과정

가

가 6).

MPH - IR

가

6~18

4

3

가

ADHD

ADHD

가

가

ADHD

7).

가

. Medline, Pubmed

ADHD 진단 및 MPH-R 치료 시작 : 2002년 9 - 12월
 설문지를 통한 약물 순응도 평가 : 2003년 3 - 4월
 병특기특지 검토를 통한 약물 순응도 및 기타 임상변수 평가 : 2003년 3 - 4월

3. 연구과정

100명 환아 ADHD 진단 및 MPH-R 치료 시작 : 2002년 9 - 12월
 2003년 3-4월 설문지를 통한 약물 순응도 평가
 병특기특지 검토를 통한 약물 순응도 및 기타 임상변수 평가 : 2003년 3 - 4월

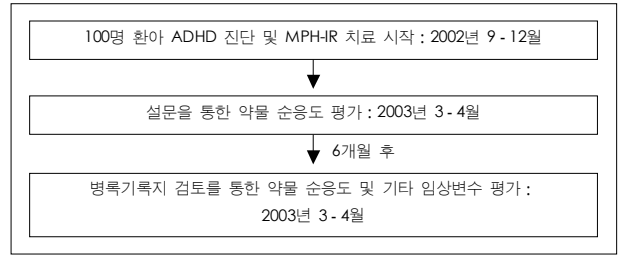


Table 1. demographic data

| Variables | | Total patients(n=100) |
|-----------------------|------------|-----------------------|
| Age | | 10.0(5.2) |
| Sex | Boys/Girls | 78 vs 22 |
| SES(%) | High | 22.0 |
| | Middle | 57.0 |
| | Low | 21.0 |
| Family state(%) | Married | 90.0 |
| | Separated | 5.0 |
| | Divorced | 5.0 |
| Parental education(%) | Primary | 3.0 |
| | Middle | 13.0 |
| | High | 49.0 |
| | College | 35.0 |
| Comorbid disorder(%) | Depression | 15.0 |
| | Anxiety | 24.0 |
| | ODD | 19.0 |
| | CD | 4.0 |
| ADHD rating scale | | 26(9.6) |

Age and ADHD rating scale : numeric, Sex, SES, family state, parental education, comorbiddisorder : percentage SES: socio-economic status

4. 약물 순응도 및 약물 반응 평가

가 10 가
 가 , 가
 가 가

결 과

1. 설문지를 통한 약물 순응도 평가결과(2003년 4월 평가)

100 가
 , 7 , 12
 , 21 , 45 , 15
 , 60 가
 78 ,

Table 2. Comparison of demographical characteristics in the compliance group and the noncompliance group

| Variables | | Compliance(n=62) | Noncompliance(n=38) | p-value |
|-----------------------|------------|------------------|---------------------|---------|
| Age | | 10.1(7.2) | 9.9(4.8) | ns |
| SEX | Boys/Girls | 50 vs 12 | 28 vs 10 | ns |
| SES(%) | High | 23.3 | 21.4 | ns |
| | Middle | 56.3 | 58.2 | |
| | Low | 20.4 | 20.4 | |
| Family state(%) | Married | 89.4 | 90.1 | ns |
| | Separated | 5.9 | 5.3 | |
| | Divorced | 4.7 | 4.6 | |
| Parental education(%) | Primary | 2.3 | 4.0 | ns |
| | Middle | 13.5 | 9.5 | |
| | High | 49.8 | 52.2 | |
| | College | 34.4 | 33.3 | |

(70%) 81 , 5 1 62% 가 .
 5 가 43 . 89 ()
 가 , 63 .
 가

1) 인구사회학적인 특성

가 32 , , (Table 2).
 가 45 77 가

2) 발달력 및 공존장애상에서의 특성

8 가 56 가 .
 2. 6개월 후 순응도 평가 결과(2003년 10월 평가)
 100 가 6 , ADHD
 62 , 38 (Table 3).
 가 ,

Table 3. Comparison of characteristics of developmental history and comorbidity in the compliance group and the noncompliance group

| Variables | | Compliance(n=62) | Noncompliance(n=38) | p-value |
|-----------------------|--------------------|------------------|---------------------|---------|
| Parental education(%) | Perinatal problems | 2.3 | 2.6 | ns |
| | Motor | 7.3 | 6.5 | ns |
| | Language social | 8.5 | 10.1 | ns |
| Medical problems(%) | | 5.4 | 6.4 | ns |
| Comorbidity(%) | | 10.3 | 9.8 | ns |
| | Depression | 14.0 | 15.0 | ns |
| | Anxiety | 23.0 | 24.0 | ns |
| | ADD | 18.0 | 21.0 | ns |
| | CD | 4.0 | 3.0 | ns |
| ADHD rating scale | | 27.3(8.9) | 25.6(10.2) | ns |

Motor : motor development, language : language development, social : ocial development, ODD : oppositional defiant disorder, CD : conduct disorder

Table 4. Comparison of psychometric variables in the compliance group and the noncompliance group

| Psychometric variables | | Compliance(n=62) | Noncompliance(n=38) | p-value |
|------------------------|------------------------|------------------|---------------------|---------|
| KWISC | Total | 103.5(12.1) | 94.1 (10.2) | 0.02 |
| | VIQ | 104.2(12.3) | 94.3 (9.9) | 0.02 |
| | PIQ | 103.2(13.1) | 93.7 (9.2) | 0.01 |
| Academic function test | Information processing | 10.1(2.3) | 9.2 (1.5) | ns |
| | Calculation | 9.5(2.3) | 10 (2.4) | ns |
| | Reading 1 | 5.9(2.3) | 5.9 (0.6) | ns |
| | Reading 2 | 4.8(1.4) | 5.3 (2.1) | ns |
| | Writing | 6.5(0.8) | 6.7 (1.4) | ns |
| ADHD diagnostic system | V-Omission | 78.2(13.2) | 8.01(14.6) | ns |
| | V-comission | 72.6(11.4) | 78.1 (11.8) | ns |
| | V-RT | 53.7(10.7) | 52.9 (10.8) | ns |
| | A-Omission | 64.5(12.1) | 67.3 (11.8) | ns |
| | A-Comission | 69.4(10.9) | 63.2 (9.2) | ns |
| | A-RT | 52.2(10.3) | 49.8 (10.2) | ns |

Table 5. Comparison of treatment variables in the compliance group and the noncompliance group

| Treatment variables | | Compliance(n=62) | Noncompliance(n=38) | p-value |
|---|----------------|------------------|---------------------|---------|
| Duration of treatment | Months | 11.2(2.3) | 12.1(3.1) | ns |
| Afternoon compliance at questionnaire (%) | More than 4/wk | 34.0 | 56.0 | 0.01 |
| Treatment response(%) | Responder | 88.6 | 63.8 | 0.001 |
| Mean doses of medication | Mg/kg | 0.92(0.23) | 0.75(0.33) | 0.02 |
| Position of physician | Faculty/fellow | 48 v 14 | 22 vs 16 | 0.04 |

3) 심리학적 변인에서의 특성

⁸⁾ MPH - IR

2, 가, ADS 가 가 Firestone (1982) 가 4
 6~9 76 , 26% 가
 (Table 4). 80%, 10 56%

4) 약물 치료력 및 치료 반응상의 특성

가 ($\chi^2=15.0, df=4, p=0.01$), 가 32% 가 87.2% 가 3
 (Table 5). 25%

고 찰

MPH - IR 1
 62% 가 가 ADHD 81% , 89%
 1 62 100 43% ,
 ADHD MPH - IR) 가 가 (,
 ADHD MPH - IR 가 가 ,
 MPH - IR ADHD 가 ,
 가 ADHD 가 가 “ ”

MPH - IR

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Objectives : There have been very few studies on the compliance of methylphenidate-immediate releasing form(MPH-IR), which is the most frequently used drug in Korea, in Attention Deficit Hyperactivity Disorder (ADHD) . This study was conducted to investigate the compliance rate and the related factors in the one year pharmacotherapy process via OPD for children with ADHD.

Method : Total 100 ADHD patients were selected randomly among patients who have been treated with MPH-IR from September in 2002 to December in 2002. All the selected patients were diagnosed with DSM-IV-ADHD criteria and fulfilled the inclusion criteria.

In March, 2003(at the time of 6 month treatment), all the patients and parents received the questionnaire for the compliance and satisfaction for MPH-IR treatment. In October 2003(at the time of 1 year treatment), we, investigators evaluated the socio-demographic variables, developmental data, medical data, family data, comorbid disorders, treatment variables, and compliance rate. Through these very comprehensive data, The compliance rate at the time of mean 1 year treatment and the related factors were investigated.

Result : 1) In the questionnaire for compliance and satisfaction for MPND treatment, the 60% of respondents (parents) reported more than moderate degree of satisfaction in the effectiveness of MPND. Their compliance rate for the morning prescription was 81%, but the rate of afternoon prescription was 43%. 2) In the evaluation at the time of 1 year treatment(October 2003), the 38% of parents were dropped out from the OPD treatment. The mean compliance rate for the 1year treatment was 62%. 3) Compared with the noncompliant group(drop-out group), compliant group showed higher total, verbal and performance IQ scores. In the treatment variables, higher reposer rate(clinician rating), higher medication dosage and more compliance rate in afternoon prescription were found in the compliant group compared with the noncompliant group. There were no statistical differences in the demographic variables(age, sex, SES, parental education level), medical data, developmental profiles and academic function.

Conclusion : To our knowledge, this is the first report about the compliance rate of the MPH-IR treatment for the children with ADHD. The compliance rate at the time of mean 1year treatment was 62%, which was comparable with other studies performed in foreign countries, especcally States. In this study, the compliance related factors were IQ score, clinical treatment response, dosage of MPH-IR, and early compliance for the afternoon prescription. These results suggest that clinician plan the strategies for the promotion of the early compliance for the after prescription and enhancement of overall treatment response.

KEY WORDS : Attention deficit hyperactivity disorder · Compliance rate · Compliance related factors · Methylphenidate-IR.