

입원한 전반적발달장애 소아청소년의 임상특성

CLINICAL CHARACTERISTICS OF CHILD AND ADOLESCENT
PSYCHIATRIC INPATIENTS WITH PERVASIVE
DEVELOPMENTAL DISORDER박태원*[†] · 표경식** · 반건호*** · 홍강의*Tae Won Park, M.D.,*[†] Kyung Sik Pyo, M.D.,**
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요 약 :

방 법 : 57 (53 , 4)

가 ,
결 과 :

1) 96 ± 28.2 , 52
± 26.6 , 43.7 ± 31.3

2) 가 27 (47.4%) 가 , 15 (26.3%),
Asperger 9 (15.8%), 2 (3.5%)

3) 33 (57.9%) , 21 (36.8%) ,
, 34 (59.6%) , 30
(52.6%)

4) 13 (23.8%) , 2 (3.5%) , 3 (5.3%)
가 가 28 FSIQ 70 ± 27.5 , 15 (53.6%) 70
(BGT)가 가 28 27 (96.4%)

5) 52 11 (21.2%) , 37
8 (21.6%)

6) 8 (14%) . 20 (35.1%) 가
, 3 (5.3%) 가

7) , 62.5% . 62.5%

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결 론 : 가 가

중심 단어 : 5/10,000

서 론

Kanner(1943)¹⁾ , 1.6 : 1⁹⁾ , Asperger , Rett ,

2 (DSM- : APA 1968)²⁾

. 1980 DSM-³⁾ Folstein Piven¹⁰⁾
 (pervasive developmental disorder)가 2 3%(50 100)
 가

가 DSM-³⁾ 8.6% . Folstein Piven¹⁰⁾

1) , 2) , 3) , ,
 , 4) 4 가 가 가
 , DSM- -R(1987)⁴⁾ 2가 가
 , , , Bolton¹¹⁾ Asper -
 (ICD) , ICD- ger 3%

9(1980)⁵⁾ , ,
 가 ICD- 10(1992)⁶⁾ 5 6% .
 가 1) 20% ,
 , 2) , 3) Rett , 4) 11) ,
 , 5) Asper - 3% .

ger , 6) . DSM- -R ICD- , Pickles¹²⁾
 10 가 6%

⁷⁾, DSM- -R

ICD - 10 가 Rett , , Asperger ,
 가 DSM- (1994)⁸⁾ ICD - 10 ,
 Rett , , 가 ,
 , Asperger .

가

10,000(4.8/10,000)⁹⁾ 0.7 15.5/

연구대상 및 방법

1. 연구대상

1993 1998

57 (53 , 4)

DSM - 8)

(7%)

1993 1994

DSM - -R DSM -

DSM - 가 .

DSM - 가

2. 연구방법

가

가

t - test

결 과

1. 대상 환자의 사회인구학적 특성과 진단(Table 1)

43.7 ± 31.2

52.4 ± 26.6 (4.3 ± 26.6

47.67 , Asperger

71.4 ,

가 (t<.05).

가 91.2%

가 53 (93.0%), 4 (7.0%)

15 (26.3%), 9 (15.8%),

4 (7.0%), 3 (5.3%),

1 (1.8%),

가 6 (10.5%)

' 31 (54.4%), 15 (26.3%), As-

perger 9 (15.8%), 2

Table 1. General characteristics and diagnosis(%)

Age on admission (months)	96 ± 28.2
Age on detection (months)	52.4 ± 26.6
Duration of admission(days)	43.7 ± 31.2
Place of birth	Urban 52(91.2) Rural 5(8.8)
Sex	Male 53(93.0) Female 4(7.0)
Current level of education	Currently ' none ' 6(10.5) Kindergarten or nursery school 15(26.3) Elementary school (usual classes) 19(33.3) Elementary school (special classes) 4(7.0) Special school for handicapped 9(15.8) Middle school (regular classes) 3(5.3) Middle school (special classes) 1(1.8)
Diagnosis	Autistic disorder 15(26.3) Childhood disintegrative disorder 2(3.5) Asperger's disorder 9(15.8) PDD NOS 27(47.4) PDD+RAD feature 4(7.0)

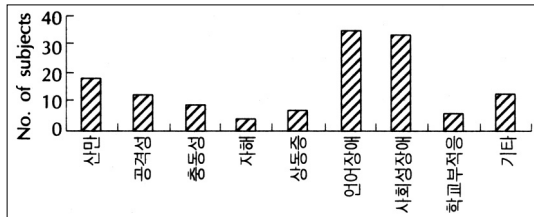


Fig. 1. Initial problems on admission.

Table 2. Developmental history(%)

Comorbidity	ADHD	13(22.8)
	Tic disorder	2(3.5)
	Psychosis	3(5.3)
	MR(according to IQ < 70)	15(53.6)
Neurological hx	Epilepsy	3(5.3)
	Infantile spasm	3(5.3)
	Head trauma	2(3.5)
Neurological abnormality	EEG	11(21.2)
	CT or MRI	8(21.6)
	BG test	27(96.4)
IQ	FSIQ	70 ± 27.5
	VIQ	75 ± 26.2
	PIQ	79 ± 26.2
FSIQ(by dx)	Autistic disorder(N = 4)	42 ± 9.2
	Asperger's disorder(N = 8)	101.5 ± 22.3*
	PDD NOS(N = 13)	58.1 ± 14.2*

*p < .05

(3.5%)

2. 입원시 주문제 (Fig. 1)

가 , / 가 (31.6%), (21.1%), (15.8%), (5.0%), 12.3%), (3.5%)

3. 발달력 평가(Table 2)

3 가 47 (82.5%), 가 8 (14.0%), 가 3 (3.5%) 33 (57.9%), 7 (12.3%), 21 (36.8%), 11 (19.3%), 가 2 (3.5%), 가 (5.3%), 가 (5.3%)

Table 3. Comorbidity, neurological hx, neuropsychological results(%)

Main caretaker by 3yrs old	Mother	47(82.5)
	Grandparents	8(14.0)
	Babysitters	3(3.5)
Pregnancy problems	Severe morning sickness	7(12.3)
	Maternal disease	7(12.3)
	Taking medicine	11(19.3)
	Psychological distress	21(36.8)
Type of delivery	Vaginal delivery	45(78.9)
	C/S delivery	12(21.1)
Absence of developmental milestone	Eye contact	23(42.6)
	Babbling	15(26.8)
	Social smile	19(33.9)
	Imitative play	22(41.5)
	Stranger anxiety	34(59.6)
	Separation anxiety	30(52.6)
Delay of motor development	20(36.4)	
Delay of toilet training	25(45.5)	

21 (36.8%)

45 (78.9%),

12 (21.1%)

34 (59.6%),

30 (52.6%),

23 (42.6%),

22 (41.5%),

19 (33.9%),

15 (26.8%)

20 (36.4%),

가

25 (45.5%)

4. 공존질환, 신경학적 병력, 기질검사 및 지능검사 (Table 3, 4)

15 (53.6% : 가 가 IQ 70), 28 13 (22.8%), 3 (5.3%), 가 2 (3.5%) 가 3 (5.3%), 3 가 (5.3%), 2 (3.5%)

Table 4. Abnormal EEG findings in 11 patients

/	or		CT or MRI
/ 6	SQ = 47		, occipital
/ 8	SQ = 22		, mid-temporal
/ 6	SQ = 67		, centroparietal
/ 6	SQ = 43.5		, occipital, centroparietotemporal
/ 6	SQ = 40.1	PDD NOS	, occipital, centrotemporal
/ 6	/ 가	PDD NOS,	, occipital , occipital
/ 4	SQ = 51.2	PDD NOS	MRI :
/ 5	SQ = 46		, frontal
/ 7	SQ = 50	PDD NOS	, parieto-temporal
/ 9	IQ = 61 (V63 P68)	PDD NOS	, temporal
/ 5	IQ = 106 (V87 P126)	PDD NOS	, parietal

(22.2%), 21 (38.9%), 16 (29.6%),
 , X , Down 5 (9.3%)
 , X 1 3 (5.3%), 47 (82.5%),
 52 11 7 (12.3%) 29
 (21.2%), (51.8%), 18 (32.1%), 7 (12.5%),
 37 8 (21.6%), 2 (3.6%)
 28 27 (96.4%) 28 (50.0%), 18 (32.1%), 4 (7.1%),
 6 (10.7%)
 (Table 4). 1 (1.8%),
 1 11 2 (3.5%), 2 (3.5%),
 2 가가 가 , 2 (3.5%)
 8 6 8 (14.0%), 1 (1.8%),
 가 50 1 (1.8%) 가 (8)
 가 가 28 70 가 23 (40.6%)
 ±27.5, 70±26.2, 79±26.2 3 (5.3%)
 42±9.2, Asperger
 101.5±22.3, 58.1±
 14.2 , Asperger
 (p<.05).
 5. 가족의 특성 (Table 5) 52 (91.2%), 2가
 1 (1.8%), 1 (1.8%), 3 35 (61.4%)
 (5.3%) . 가 가 47 (82.5%), 25 (43.9%), 9
 가 10 (17.5%) 12 (15.8%), 8 (14.0%), 3 (5.3%),

6. 치료에 대한 특성 (Table 6)

가 49 (86%) , 35
 (62.5%), 19 (33.9%), 1
 (1.8%), 35 (62.5%) ,

Table 5. Characteristics of family(%)

Marital status	Married	52(91.2)
	Father only(divorced)	1(1.8)
	Separated	1(1.8)
	Father+step mother	3(5.3)
SES	High	3(5.3)
	Middle	47(82.5)
	Low	7(12.3)
Level of education (father)	Elementary school	2(3.6)
	Middle school	7(12.5)
	High school	18(32.1)
	More than college	29(51.8)
Level of education (mother)	Elementary school	6(10.7)
	Middle school	4(7.1)
	High school	28(50.0)
	More than college	18(32.1)
Psychopathology (father)	Depression	1(1.8)
	Alcoholism	2(3.5)
	Delayed language development	2(3.5)
	ADHD	2(3.5)
Psychopathology (mother)	Depression	8(14.0)
	Alcoholism	1(1.8)
	Delayed language development	1(1.8)
Family loading	General psychiatric problems	20(35.1)
	Pervasive development disorder	3(5.3)

Table 6. Treatment and outcome(%)

Past treatment	49(86.0)
Special educational therapy	35(62.5)
Language therapy	19(33.9)
Psychiatric(admission)	1(1.8)
Psychiatric(outpatient)	35(62.5)
Medication during admission	35(61.4)
Anticonvulsants	8(14.0)
Antipsychotics	25(43.9)
Benzodiazepines	2(3.5)
Stimulants	9(15.8)
Other drugs	3(5.3)
Type of discharge	
According to medical advice	49(86.0)
Against medical advice	8(14.0)
Outcome	
No change	12(21.1)
Slightly improved	39(68.4)
Much improved	6(10.5)

2 (3.5%)
 49 (86%), 8
 (14%)
 39
 (68.4%), 6 (10.5%), 가
 12 (21.1%)

가 , , 가
 가
 52.4 ± 26.6 . Siegel ¹³⁾ 가
 3 가 5
 . Ornitz ¹⁴⁾ 50%
 14
 46 32
 Klin¹⁵⁾ Asperger

고 찰

53 : 4(13.3 : 1)
 9)
 3.68 : 1(1.33 16.0)
 가
 가 (6 : 1),
 1.68 : 1
 가 9)

, ,
 가
 가 4
 가

⁹⁾ , ' 53.6% 70%
 , 가 가 70
 31 : 15(2.1 : 1) , 가 가
 28 4
 가 , 가 가 4
 (57.9%), , 가 가 42 ± 9.2
 , Asperger ' , (p<.01)
 , DSM -
¹⁶⁾ , Steffen -
 burg ¹⁷⁾ 가 21.2% 5.3%
 , 4.8 26.4%
 가 , Gillberg Gillberg¹⁸⁾ ⁹⁾ , Deykin McMahon²¹⁾
 가 , 가 ,
 , Asperger ' , Volkmar
¹⁹⁾ Nelson ²²⁾ Rossi ²³⁾
 가 , 가 가 ,
 가 , , Rossi ²³⁾
 가 45% 가 10
 , Volkmar Nelson²²⁾ 192
 21%
 , 가
 , X
 가 , Down
²⁰⁾ 가 ,
 1 X ,
 가 가 (22.8%) , 가 가
 가 (31.6%), (15.8%) 가 50 , Tuchman ²⁴⁾
 (21.1%)
 57 28 (49.1%) 가 가 가 , 가
 가 가 70 , Elia ²⁵⁾

Table 4

Rossi ²³⁾ ,

90%

52%

(14%),

Smalley ²⁶⁾

가

/

27)

28)29)가

(64%)가

가

가

가

가

35 (61.4%) , Rimland

(1988) ³⁰⁾ San Diego

4000 가

67.5%(2700

)

(43.9%)

가

가

가

References

- 1) **Kanner L**(1943) : Autistic disturbances of affective contact. *The Nervous Child* 2 : 217-250
- 2) **American Psychiatric Association**(1968) : Diagnostic and Statistical Manual of Mental Disorders. 2nd Ed, Washington DC, American Psychiatric Association Press
- 3) **American Psychiatric Association**(1980) : Diagnostic and Statistical Manual of Mental Disorders. 3rd Ed, Washington DC, American Psychiatric Association Press
- 4) **American Psychiatric Association**(1987) : Diagnostic and Statistical Manual of Mental Disorders. 3rd Ed revised, Washington DC, American Psychiatric Association Press
- 5) **World Health Organization**(1980) : The ICD-9 Classification of mental and behavioural disorders. Geneva
- 6) **World Health Organization**(1992) : The ICD-10 Classification of mental and behavioural disorders. Geneva
- 7) **Volkmar FR, Klin A, Siegel B, Szatmari P, Lord C, Campbell M, Freeman BJ, Cicchetti DV, Rutter M, Kline W, Buitelaar J, Hattab Y, Fombonne E, Fuentes J, Werry J, Stone W, Kerbeshian J, Hoshino Y, Bregman J, Loveland K, Szymanski L, Towbin K**(1994) : DSM-IV Autism/pervasive developmental disorder field trial. *Am J Psychiatr* 151 : 1361-1367
- 8) **American Psychiatric Association**(1994) : Diagnostic and Statistical Manual of Mental Disorders. 4th Ed, Washington DC, American Psychiatric Association Press, pp85-91
- 9) **Fombonne E**(1998) : Epidemiological surveys. In : Autism and pervasive developmental disorders. Ed by Volkmar FR, New York, Cambridge University Press, pp32-63
- 10) **Folstein S, Piven J**(1991) : Etiology of autism : Genetic influences. *Pediatrics* 87(5) : 767-773
- 11) **Bolton P, Macdonald H, Pickles A, Rios P, Goode S, Crowson M, Bailey A, Rutter M**(1994) : A case-control family history study of autism. *Journal of Child Psychology and Psychiatry* 35 : 877-900
- 12) **Pickles A, Bolton P, Macdonald H, Bailey A, Le Couteur A, Sim HC, Rutter M**(1995) : Latent-class

- analysis of recurrence risks for complex phenotypes with selection and measurement error : A twin and family history study of autism, *American Journal of Human Genetics* 57 : 717-726
- 13) **Siegel B, Pliner C, Eschler J, Elliot GR**(1988) : How autistic children are diagnosed : Difficulties in identification of children with multiple developmental delays. *Journal of Developmental and Behavioral Pediatrics* 9 : 199-204
 - 14) **Ornitz EM, Guthrie D, Farley AH**(1977) : Early development of autistic children. *Journal of Autism and Childhood Schizophrenia* 7 : 207-229
 - 15) **Klin A**(1994) : Asperger syndrome. *Child and Adolescent Psychiatry Clinic of North America* 3 : 131-148
 - 16) **Piven J, Simon J, Chase GA, Wzorek M, Landa R, Gayle J, Folstein S**(1993) : The etiology of autism : pre-, peri-, and neonatal factors. *Journal of the American Academy of Child and Adolescent Psychiatry* 30 : 471-478
 - 17) **Steffenburg S, Gillberg C, Hellgren L, Andersson L, Gillberg C, Jakobsson G, Bohman M**(1989) : A twin study of autism in Denmark, Finland, Iceland, Norway and Sweden. *Journal of Child Psychology and Psychiatry* 30 : 405-416
 - 18) **Gillberg C, Gillberg IC**(1983) : Infantile Autism : A total population study of reduced optimality in the pre-, peri-, and neonatal period. *Journal of Autism Developmental Disorders* 13 : 153-166
 - 19) **Goodman R**(1990) : Technical Note : are perinatal complications causes or consequences of autism? *Journal of Child Psychology and Psychiatry* 31 : 809-812
 - 20) **Bregman JD, Volkmar FR**(1988) : Autistic social dysfunction and Down's syndrome. *Journal of the American Academy of Child and Adolescent Psychiatry* 27 : 440-441
 - 21) **Deykin EY, McMahon B**(1979) : The incidence of seizures among children with autistic symptoms. *American Journal of Psychiatry* 136 : 1310-1312
 - 22) **Volkmar FR, Nelson DS**(1990) : Seizure disorders in autism. *Journal of the American Academy of Child and Adolescent Psychiatry* 29 : 127-129
 - 23) **Rossi PG, Parmeggiani A, Bach V, Santucci M, Visconti P**(1995) : EEG features and epilepsy in patients with autism. *Brain and Development* 17 : 169-174
 - 24) **Tuchman RF, Rapin I, Shinnar S**(1991) : Autistic and dysphasic children. II. epilepsy. *Pediatrics* 88 : 1219-1225
 - 25) **Elia M, Musumeci SA, Ferri R, Bergonzi P**(1995) : Clinical and neurophysiological aspects of epilepsy in subjects with autism and mental retardation. *American Journal of Mental Retardation* 100 : 6-16
 - 26) **Smalley SL, McCracken J, Tanguay P**(1995) : Autism, affective disorder, and social phobia. *American Journal of Medical Genetics* 60 : 19-26
 - 27) **DeMyer MK, Hingtgen JN, Jackson RK**(1981) : Infantile autism reviewed : A decade of research. *Schizophrenia Bulletin* 7 : 388-451
 - 28) **Peterson P**(1984) : Effects of moderator variables in reducing stress outcomes in mothers of handicapped children. *Journal of Psychosomatic Medicine* 28 : 337-344
 - 29) **Wolf LC, Noh S, Fisman SN, Speechley M**(1989) : Psychological effects of parenting stress on parents of autistic children. *Journal of Autism and Developmental Disorders* 19 : 156-166
 - 30) **Rimland B**(1988) : Controversies in the treatment of autistic children : Vitamine and drug therapy. *Journal of Child Neurology* 3 (suppl) : 68-72

**CLINICAL CHARACTERISTICS OF CHILD AND ADOLESCENT
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DEVELOPMENTAL DISORDER**

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Objectives and Methods : This study investigated clinical characteristics, treatment modality, outcome of 57 children and adolescent inpatients (male 53, female 4) who were diagnosed as pervasive developmental disorder (PDD) by DSM- criteria recent five years.

Results :

1) The mean age at admission was 96 ± 28.2 months, and the mean age at which they first visited treatment facility was 52 ± 26.6 months. The mean hospitalization period was 43.7 ± 31.3 days.

2) Diagnosis : Twenty-seven (47.4%) of subjects met DSM- criteria for PDD NOS. Fifteen (26.3%) met for autistic disorder, nine (15.8%) met for Asperger's syndrome, and two (3.5%) met for childhood disintegrative disorder.

3) Comorbid diagnosis : The most common comorbid diagnosis was attention deficit hyperactivity disorder (23.8%).

4) IQ test : IQ test for twenty-eight subjects was possible. The Average of the subjects was 70 ± 27.5 . Fifteen (53.6%) of the subjects were approximate or under 70.

5) Neurology Abnormality : EEG findings of eleven (21.2%) subjects were abnormal, brain CT or MRI findings of eight subjects (21.6%) were abnormal.

6) Family Hx : Depressive disorder were found in Eight mothers (14%). Familial loading was found in twenty families (35.1%), and familial loading of PDD was found in three (5.3%).

Conclusion : The most important thing for the management of PDD is early detection and early treatment. To do so, multidisciplinary team approach should be emphasized.

KEY WORDS : Pervasive developmental disorder · Clinical characteristics.