

Fluoxetine 및 Sertraline으로 유도된 심한 세로토닌 증후군 1예

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A Case of Severe Serotonin Syndrome Induced by Fluoxetine and Sertraline

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ABSTRACT

A 54-year old male patient who was suffering from bipolar I disorder for 19 years and was admitted to the National Bugok Mental Hospital due to a depressive episode, was referred to the Kosin University Gospel Hospital. On arrival at the emergency room, he had confused mentality with disorientation, memory impairment, hypomania, marked anxiety and hyperirritability. The change of neuromuscular activity such as ataxia, gait disturbance, tremor, shivering, myoclonus and epileptic seizures was also shown. In addition, the symptoms and signs of autonomic instability including diaphoresis, tachycardia, hypotension, fever and facial flushing were noticed. The above symptoms developed after the administration of sertraline successive to the discontinuation of fluoxetine without any washout period. The degree of severity seemed to be severe because he had epileptic seizures, fever and hypotension. He was recovered from the severe serotonin syndrome by the supportive symptomatic treatment with sodium valproate, clonazepam, lorazepam and cyproheptadine after cessation of the selective serotonin reuptake inhibitors during hospitalization. Therefore, this rare case of severe serotonin syndrome was reported and related literatures were also reviewed.

KEY WORDS : Confusion · Tremor · Myoclonus · Diaphoresis · Fever · Epileptic seizures.

서 론

(Mills 1997).

가

(disseminated

(serotonin syndrome, SS)

intravascular coagulation, DIC)

1960 Oates Sjoerdsma

100

(Mason 2000),

가

Sternbach(1991)가

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증 례

54, 1982, 4, 18, 11.9, 6, g/dL(13~17g/dL), WBC 11,100/μL, 1986, 6, (3,600~8,000/μL), 1998, 5, amylase 41U/L(30~110U/L), lipase 57U/L, 가, 2~3, . 1999, . 2000, (23~203U/L), BUN 15mg/dL(5~25mg/dL), 1, 2, . 2000, Cr 0.8mg/dL(0.3~1.5mg/dL), Na 140meq/L(12, 15, fluoxetine 136~153meq/L), K 4.0meq/L(3.5~5.3meq/L), ammonia 19 μg/dL(16~96 μg/dL), 20mg, 가, 2001, 2, 5, CPK 656U/L(55~170U/L)가 가, myoglobin, myoglobin 316.3ng/mL(0~72ng/mL) 가, aldolase 8.0 sigma U/mL(2~8 sigma U/mL), ketone (5mg/dl), bicarbonate 27.0mmol/L, (sinus tachycardia), 60mg, . 30, 55, , 56kg, fluoxetine 40mg, 4, 18, 5, tine, sertraline 100mg, 66, fluoxetine, 67, 가, , 11, 가, , 72, , 70/40mmHg, 가, 2001, 4, 17, sertraline, 가, , 5, 가, 3~4 가, (tonic seizure), 가, , 4, 19, 2, 37.4, 가, . 4, 19, 5.7g/dL(6.0~8.0g/dL), albumin 3.5gm(3. 3~5.5gm), cholesterol 170mg/dL(120~250mg/dL), HDL 41mg/dL(31~68mg/dL), triglyceride 86mg/dL (50~155mg/dL), bilirubin 0.9mg/dL(0.2~1.2 mg/dL), alkaline phosphatase 183U/L(100 - 280U/L), r - GTP 6U/L(1 - 63U/L), SGOT 30IU/L(5 - 45IU/L), SGPT 23IU/L(5 - 40 IU/L), LDH 442IU/L (5 - 450IU/L) (disseminated intravascular coagulation, DIC) (cranial nerve), 3mm/ 3mm, , 12, FDP(fibrin degradation products, 5 μg/ mL) D - dimer, fibrinogen 252mg/dL((glabellar), (snout), (palmomental) 가, .

150~400mg/dL) . ESR 42mm/hr(0~ recall 5 +cued recall 8 =13), 7 ,
15mm/hr), CRP 6.61mg/dL(0~0.8mg/dL) 10 가 가 .
, RF(0.0~20.0 IU/mL) , D(79), PT(71), PA(52),
prolactin 42.43ng/mL(0.0~25.0ng/mL) 가 SC(62), MA(49), SI(59) , KWIS
. 105, 105, 105 ,
sodium valproate 900
mg , 가 (dro- ,
wsy mentality), 가
2 , 4 30 5 14 , 5 23
. , 5 27
5 (radiculopathy) . 가 5 28
, 6 8
(hydronephrosis) , 54kg 5 27 59kg, 6
. 3.0ng/mL(53~ 3 63kg 가 . 6 4
200ng/ mL) . T₃ 46.37ng/dL(가 , 6 5 90/60mmHg
61~165ng/dL), TSH 0.70 μIU/mL(0.3~5.0 μIU/ 100/70mmHg . 6 12
mL), free T₄ 0.88mg/dL(0.73~1.95mg/dL) , 가
AFP(α - fetoprotein) 1.12ng/mL(0.0~ , ,
20.0ng/mL), CEA(carcinoembryonic antigen) 1.9ng/mL(,
0.0~5.0ng/mL), CA 19 - 9(carbohydrate antigen) 9.5
U/mL(0.0~37.0U/mL) , .
ferritin 306. 23ng/mL(16~205ng/mL), TIBC(total
iron binding capacity) 147 μg/dL(250~410 μg/dL),
15 μg/dL(60~150 μg/dL), B₁₂ 855.
53pg/mL(200~950pg/mL), folate 1.27ng/mL(
3~14ng/mL) . , ,
9~82 (Fischer 1995).
가
1 (Mason 2000). Oates Sjoerdsma
(1960) 가 L -
tryptophan
, Cohen (1980) MAOI
. MAOI 2 가
MAOI 50%가 (Mills 1997). Garvey
Tollefson(1987) 9
. Steiner Fontaine(1986)
fluoxetine L - tryptophan 5
, Kline (1989) fluoxetine tranyl-
cypromine tryptophan
. Muly (1993) lithium
가 fluoxetine lithium 가
가 Mini Mental State Examination . Pato (1991) fluo-
24 , Clinical Dementia Rating 1 , 7 xetine norfluoxetine
(1) , (uncued 가 1~3 7~15 , Rosenstein (1991)

고 찰

Table 1. Compounds that increase serotonergic activity in the central nervous system(Mason et al 2000)

Category	Compound	Notes
Increase serotonin synthesis	L-tryptophan	
Decrease serotonin metabolism	Monoamine oxidase inhibitors	
	Phenelzine (Nardil)	
	Tranylcypromine (Parnate)	
	Reversible Inhibitors of MAO-A	
	Moclobemide	
	Other	
	Isocarboxazid (Marplan)	
	Selegiline (Eldepryl)	
Dopamine serotonin receptor agonists	Buspirone (Buspar)	
	Lysergic acid diethylamide (LSD)	
	Sumatriptan (Imitrex)	
	Lithium	
	Meta-chlorophenylpiperazine (mCPP)	
Dopamine agonists	Amantadine (Symmetrel)	
	Bromocriptine (Parlodel)	
	Bupropion (Wellbutrin)	
	Levodopa	
Increase serotonin release	Amphetamines	
	Cocaine	
	Fenfluramine (Pondimin)	
	Reserpine	
Inhibit serotonin uptake	Tricyclic antidepressants	
	Amitriptyline (Elavil, Endep)	14%
	Clomipramine (Anafranil)	
	Desipramine (Norpramin)	50%
	Doxepin (Sinequan)	
	Imipramine (Tofranil)	
	Nortriptyline (Pamelor)	
	Protriptyline (Vivactil)	
	Selective serotonin reuptake inhibitors	
	Fluvoxamine (Luvox)	
	Fluoxetine (Prozac)	
	Paroxetine (Paxil)	
	Sertraline (Zoloft)	1991
	Meperidine (Demerol)	Sternbach (2), 가
	Venlafaxine (Effexor)	
	Nefazodone (Serzone)	
	Trazodone (Desyrel)	
	Dextromethorphan	(tachypnea),
	Tramadol (Ultram)	
Brompheniramine (Dimetane)		

heptadine, propranolol
가
가 (pancuronium, succinylcho-
line) (membrane stabilizer) dantrolene
가 . Rodgers (1994) cyprohe-
ptadine 가 . Guzé
Baxter(1986) 8 propranolol 20mg
. Miller (1991) fluoxetine 1
tranylcypromine DIC myo-
globinuric ,
(rhabdomyolysis) DIC
. Mason (2000)
, , ,
, lorazepam
sodium valproate ,
ginkgo biloba , clonaze-
pam, sodium valproate,
cyproheptadine

결 론

54 , 19 I
가
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),
(, , , , ,
), (, , , , ,
)
. , ,
sodium valproate, clonazepam, lorazepam, cyprohe-
ptadine 가 .

중심 단어 :

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