

SSRIs 이후의 항우울제

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Beyond the SSRIs

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ABSTRACT

New antidepressants have become available for clinical use in the 1990s. Before this decade, the drugs available to treat depression consisted essentially of monoamine oxidase inhibitors, tricyclic antidepressants, and lithium. Following the introduction of SSRIs, the options have expanded and now include SSRIs, nefazodone, venlafaxine, mirtazapine, reboxetine, tianeptine. Newer antidepressants possess a variety of pharmacological characteristics that are relevant to the choice of an antidepressant for clinical use. This review summarizes some of the major pharmacological characteristics among the drugs.

KEY WORDS : Depression · Newer antidepressants · SSRIs.

서 론

(TCAs) (Potter 1991), (selective serotonin reuptake inhibitors; SSRIs) TCAs (Anderson Tom - TCAs 가 venlafaxine, mirtazapine, nefazodone, bupropion 가 SSRI (selective serotonin reuptake inhibitor) 가 SSRE) 가 tianeptine 가 reboxetine 가

(Beasley 1991).

SSRIs TCAs TCAs

본 론

1. SARI (serotonin antagonist/reuptake inhibitor)

1) 약리적 작용

Trazodone nefazodone phenylpiperazine (serotonin - 2 rece -

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ptor blocking action) (serotonin reuptake blocking) 가 SARI(Serotonin antagonist/reuptake inhibitor)

TCAs SSRIs Trazodone SARI

Trazodone TCAs SARI nefazodone trazodone

trazodone nefazodone (tolerability)

Nefazodone trazodone in vitro 1 nefazodone trazodone in vivo

Nefazodone 5-HT₂

Nefazodone nefazodone hydroxy - nefazodone , m - CPP 5 - HT_{1A} nefazodone 5HT₂ 가

2) 임상적 효과 Nefazodone 가 (Cyr

Brown 1996 ; Feighner 1998 ; Marcus Mendels 1996 ; Mendels 1995), anxious depression

. Rickels (1995) 300mg 500mg 72%가 600mg

300mg 48% 56%가 nortriptyline therapeutic window가

nefazodone imipramine, amitriptyline, paroxetine 가 (Ansseau 1994 ; Baldwin 1996 ; Cohn 1996 ; Fontaine 1994 ; Rickels 1994).

SSRIs

가 nefazodone m - CPP restlessness가

3) 부작용 Nefazodone 가 (7.5%), (5.8%), (5.6%), (5.5%), (3.3%), (3.2%), (2.6%) (Preskorn 1995), nefazodone

imipramine 가 (van Laar 1995).

Nefazodone 5 - HT_{2A/2C} 가 nefazodone stage 1 가 , awakening, movement 가 (Armitage 1997).

2. NDRI(Norepinephrine and dopamine reuptake inhibitor)

1) 작용기전 Bupropion hydroxybupropion

Ascher (1995) bupropion

Bupropion heterocyclic fused rings polycyclic antidepressants

2) 임상적 효과 Bupropion TCAs SSRIs 가

(Chouinard 1983 ; Davidson 1983 ; Kavoussi 1997 ; Mendels 1983 ; Pitts 1983 ; Reimherr 1998),

TCAs 49% (Ferguson 1994). Haykal Ak -

iskal(1990) (rapid cycling bipolar depression) 가 . Bupropion SSRIs SSRI

3) 부작용
Bupropion
serotonergic component가
가 SSRIs
가
(grand mal seizure) 가
450mg/day 0.33 0.44%
(Davidson 1989).
450mg/day

Bupropion
가 activating effect가
(Golden 1985),
(Ames 1992), (Dager Heritch 1990),
(Jackson 1992)

3. Serotonin-Norepinephrine Reuptake Inhibitors(Dual Reuptake Inhibitors)

1) 작용기전

Venlafaxine
SNRI(serotonin/norepinephrine reuptake inhibitor)
faxine TCAs
, 1 ,
Venafaxine
RIs 가 SS -
RIs SSRIs bup -
ropion

2) 임상적 효과

fluoxetine
(NRI) desipramine 가
(Nelson 1991). Venlafaxine
TCAs SSRIs
Guelfi (1992) venla -
faxine , Clerc (1994)

fluoxetine venlafaxine ve -
nlafaxine
venlafaxine (Muth 1986) -
adrenergic receptor down - regulation
Derivan (1995)
4
1
Nierenberg (1994) de Montigny(1995) ve -
nlafaxine

3) 부작용

venlafaxine TCAs
SSRIs
NRI
가 .가
(37%)
(Kahn 1991).
(Fa -
bre Putman 1987).
Venlafaxine
3 13%

4. NaSSA(Noradrenergic and specific serotonergic antidepressant)

1) 작용기전

Mirtazapine 2 heteroreceptor
가 ,
가 (autoreceptor)
가 (cell
body) 2 가
(firing rate) 가 1
가 5 - HT₂
HT₃
5 - HT₂ 5 - HT₃
SSRIs mirtazapine
5 - HT_{1A}
Mirtazapine
가

가

가

가

가

mirtazapine

30mg

2) 임상적 효과

Mirtazapine

가 (Fawcett Barkin RL 1988 ; Kasper 1995 ; Vartiainen Leinonen 1994). Bremner(1995) mirtazapine 1

(1998) 133 mg/day fluoxetine 60mg/day mirtazapine 4
30% 60% . Wheatley Catterson Pr -

eskorn(1996) amitriptyline mirtazapine 59% 55%

3) 부작용

Mirtazapine

SSRIs

가

(Montgomery 1995). 가

(23%), (19%), (25%), 가(11%), 가

가(10%)

2%

가

가가 (Davis Wilde 1996).

5. Reboxetine(selective noradrenaline reuptake inhibitor, NARI)

1) 작용기전

Reboxetine

가

1 . Reboxetine

SSRIs

mirtazapine

가 SSRIs reboxe -

tine 3

가 가

Brunello (1998) presynaptic Ca²⁺/calmodulin - dependent protein kinase II(CaMKII) 가 (autophosphorylation) 가 SSRIs , SSRIs TCAs cAMP - dependent protein kinase cAMP (postsynaptic level)

1999).

energy

(1997) fluoxetine reboxetine reboxetine

2) 임상적 효과

Reboxetine

(Berzowski 1997 ; Burrows 1998 ; Hindmarch 1997 ; Montgomery 1997), fluoxetine 가 (Massana 1998).

3) 부작용

Mucci(1997)

가

가

6. Tianeptine(Serotonin reuptake enhancer)

1) 작용기전

Tianeptine SSRIs

가

가 pyramidal cell (McEwen ; Watanabe 1992). tianeptine tianeptine (Delbende 1994).

2) 임상적 효과

Tianeptine

(Costa e Silva 1997 ; Ginestet 1997 ; Wilde Benfield 1995),

(Favre 1997 ; Saiz Ruiz 1997 ; Saiz Ruiz 1998). Saiz Ruiz (1998)

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