



제3부 : 재난 상황에서의 정신과적 개입

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PTSD의 약물치료


채 정 호



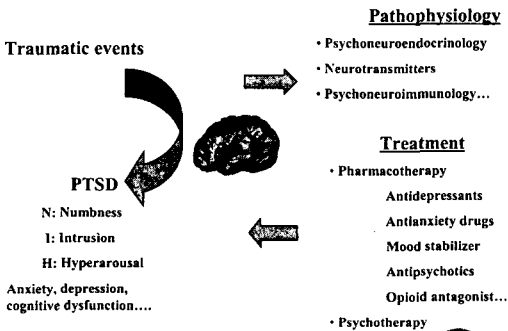
가톨릭대학교
성모병원

Disease vs Illness

- **Disease: underlying psychobiology**
 - Biological dysregulation
 - Psychological dysfunction
- **Illness: subjective experience**
 - Psychological & cultural views
 - Particular way of symptoms



Trauma-Pathophysiology-Treatment



Traumatic events


PTSD
N: Numbness
I: Intrusion
H: Hyperarousal
Anxiety, depression, cognitive dysfunction....

Pathophysiology

- Psychoneuroendocrinology
- Neurotransmitters
- Psychoneuroimmunology...

Treatment

- Pharmacotherapy
 - Antidepressants
 - Antianxiety drugs
 - Mood stabilizer
 - Antipsychotics
 - Opioid antagonist...
- Psychotherapy
- Other treatment



약물치료의 목표

1. 증상의 빈도와 정도 약화
2. 증상의 의미를 해석할 수 있는 능력 강화
3. 회피 반응 감소
4. 조건화되는 과도각성 완화
5. 우울감 감소
6. 둔화 감소
7. 정신병적 및 해리증상 완화
8. 충동적이거나 공격적인 증상 완화

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SSRIs

- Most studied medications
- The largest numbers of DBPC trials
- Short term & long term efficacy
- Favorable S/E profiles
- Considered as 1st line treatment
- Sertraline, paroxetine; 2 FDA approved drugs

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- Best first choice for treating the symptoms of PTSD (Foa et al 1999)
- Especially with respect to numbing & arousal symptoms (Fridman 1998)
- Reduction in both PTSD symptoms & alcohol consumption following sertraline treatment (Brady et al 1995)
- Rage, impulsivity, suicidal intent, depressed mood, panic symptoms, obsessional thinking & behavior (Fridman MJ 1990)

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Hippocampal Volume Change in PTSD with SSRI Treatment

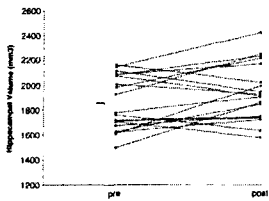


Figure 3. Individual differences in hippocampal volume before and after treatment. Each line connects the individual score of pre- and posttreatment. The horizontal lines indicate the mean group volume.

Vermetten E et al Biol Psychiatry 2003;54:693-702



Neuroanatomical change with SSRI

- Paroxetine 1 year treatment
- 5% ↑ of hippocampal volume
- 35% ↑ of declarative memory function
- Cognitive function & work performance 호전

Bremner et al 2004



Non-SSRI Antidepressants

- Nefazodone
- Trazodone
- Mirtazapine
- Venlafaxine
- Bupropion: ineffective in open label study



MAOIs

- Early uncontrolled studies
- Reduction in intrusive recollections, traumatic nightmare, PTSD flashbacks, insomnia
- No improvement in avoidant/numbing, hyperarousal, depressed, anxiety/panic symptoms (Southwick et al 1994)
- Inconsistency but promising
- S/E!
- 3rd line of treatment



TCA's

- Not generally first-choice drugs because of more side effects than the newer antidepressants (Foa 1999)
- Reductions in re-experiencing rather than avoidant/numbing or arousal symptoms (Southwick et al 1994)
- MAOI > TCA
- S/E!
- 3rd line of treatment



Antiadrenergic Agents

- Adrenergic dysregulation is associated with chronic PTSD (Yehuda R & McFarlane AC 1997).
- Propranolol
 - reduction in re-experiencing & arousal symptoms (Famularo R 1988).
 - Preventive effects?
- Alpha-2-agonists clonidine : reduction in traumatic nightmare, intrusive recollections, hypervigilance, insomnia, startle reactions, angry outburst (Friedman MJ & Southwick SM 1995).



Benzodiazepines

- Ineffective in DBPC study
- Offer little for PTSD intrusion, avoidant/numbing
- Reduction in anxiety, insomnia, irritability, arousal (Famularo R et al 1988).
- Caution in prescribing for patients with current substance abuse problems or history of substance abuse problems.
- Potential depressogenic effects
- Promote or worsen PTSD!



Anticonvulsants

- Carbamazepine
- Valproic acid
- Topiramate
- Gabapentin
- Lamotrigine

Comorbid bipolar disorder

Impulsivity

Anger



Atypical antipsychotics

- Open label & case studies
- Small DBPC study
- Scant evidence for typical antipsychotics
- Intrusive symptoms
- Sleep, nightmare, flashback
- Refractory cases!



Others

- Buspirone
- Tiagabine
- Naltrexone

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Multi-modal treatments

- Save life
- Living environment
- Security
- Information
- Social support
- Calm down
- Sleep
- Psychological education
- Psychological counseling
- Medication



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