

The Recent Advance of Generalized Anxiety Disorder and Algorithm

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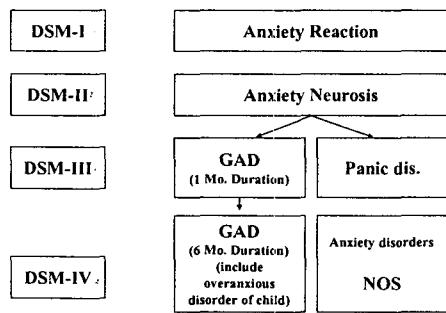
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Sparsity of research data

- ① General practitioners see patients
- ② Diagnosis : comorbid condition
- ③ Pharmacotherapy is less effective

(Kaplan & Sadock 7th ed)

Change of DSM criteria



(Rickels K, Rynn M, 2001)

Lifetime prevalence rates of GAD

Table 16.2-6. Lifetime Prevalence Rates of Generalized Anxiety Disorder per 100 Subjects

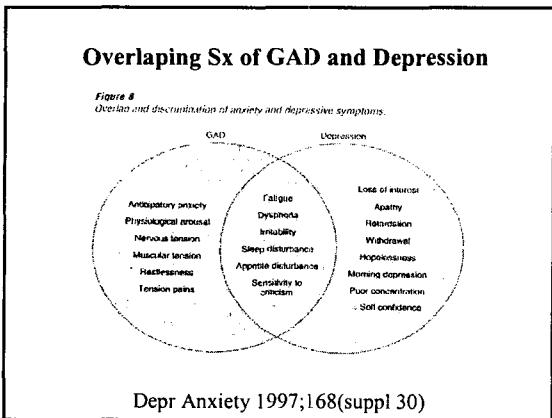
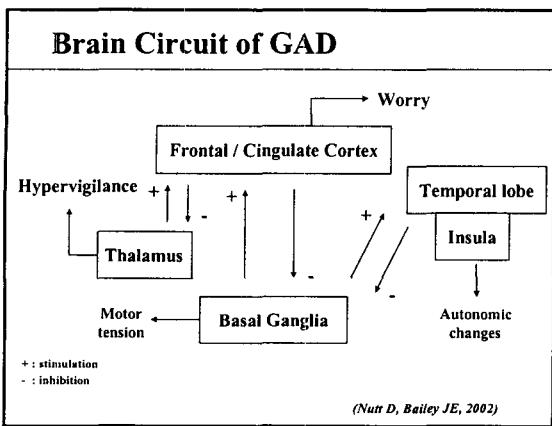
Site	Females	Males	Total
DSM-III studies			
United States (ECA)			
Durham	7.3	5.7	6.6
St. Louis	7.8	5.2	6.6
Los Angeles	5.5	2.6	4.1
Florence, Italy			5.4
Taiwan			
Urban			3.7
Small towns			10.5
Rural			7.8
Korea			3.6
DSM-III-R studies			
United States (NCS)	6.6	3.6	5.1
Florence, Italy			3.9

Psychiatric Comorbidity Rates (Brawman-Mintzer 1996)

Diagnosis	Percentage(%)
Specific phobia	21-55
Social phobia	15-59
Depressive disorders (including dysthymia)	8-39
Panic disorder	3-27
Pure GAD	10-26

Distinguishing characteristics of GAD

Disorder	Distinguishing feature	Age of onset	Associated symptoms	Cause of illness	Family history
Generalized anxiety disorder	Worry about a specific concern	Early 20s	Restlessness; motor tension; fatigue	Chronic	Generalized anxiety disorder, panic disorder, alcohol abuse
Panic disorder	Intense, brief acute anxiety; frequency of attacks variable, often no precipitant	Bimodal onset (late adolescence, mid-30s)	Rapid heart rate, trembling, diaphoresis, dyspnea	Variable periods of remissions and relapses	Panic disorder, major depression and alcohol abuse
Major depression	Persistently low mood, may be accompanied by persistent anxiety	Mid 20s	Neurovegetative symptoms (e.g., insomnia, lack of appetite, guilt)	Symptoms remit but may recur	Major depression, alcohol abuse



Main Target Symptoms and their Treatments of GAD
• Worry : Cognitive therapy
• Anxiety : Pharmacotherapy (ADs, Benzodiazepines, Buspirone)
• Tension : Behavior therapy(Relaxation), Pharmacotherapy(Benzodiazepines,Ads)

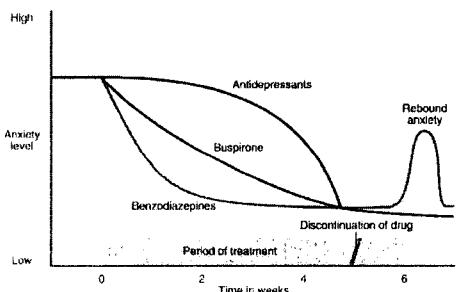
Pharmacotherapy of GAD (Nutt 1998)

First Line

- SNRI(Venlafaxine XR)
- SSRIs(Paroxetine)
- Buspirone
- TCAs
- Benzodiazepines

Second Line

- Flupentixol
- Hydroxyzine
- MAOIs



Rickels et al, Arch Gen Psy 1993

Comparison of Medications in GAD Treatment

Drugs	SSRI/SNRI	TCAs	Benzodiazepines	Buspirone
Onset	Slow	Slow	Fast	Slow
Therapeutic tolerance	No	No	Little	No
Abuse	-	-	+	-
Withdrawal	+	+	++	-
Interactions with ethanol	+	+	+++	+
Sedation	-	++	++	-
Amnesia	-	+	++	-
Overdose risk	-	++	+	-

Duration of Treatment

- Long-term treatment and maintenance required
- At least 6 Months ~ 1 Year after recovery

Predictors of Treatment Outcome

- Good Predictors Factors
 - acute onset
 - early intervention
 - positive response to previous treatment
 - good compliance
 - realistic expectation from treatment
 - good ego strength
 - marital stability
- Negative Predictors
 - co-current personality disorder

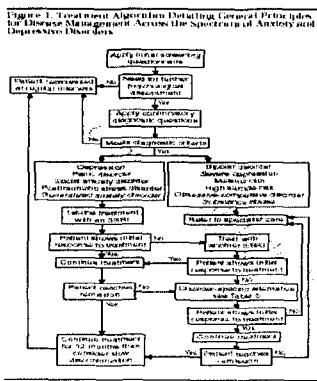
Future GAD Medication

Abecarnil – partial BDZ agonist
Tropisetron – 5-HT3 antagonist
Serazepine – 5-HT2 antagonist
Gepirone, ipsapirone – related buspirone

Experimental GAD Treatment

Valerian Extract (Valepotriales)	Effective, Germany	Andreattini, 2002
Pregabalin	GABA analogue, No withdrawal sx	Felthorpe et al 2003 Pande et al 2003
Kava extract (piper methysticum)	controversial	Connor et al 2002
Tiagabine	GABA reuptake inhibitor Effective, well tolerable	Rosenthal 2003
Homeopathy	Placebo like effect	Bonne et al 2003
Hydroxyzine	Piperazine derivative H1 antagonist	Llorca 2002

Primary care
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Psychiatry
2001;3(2)



D/Dx of GAD and Tx strategy

