



Nonpharmacologic and Pharmacologic Interventions for Behavior Symptoms in Dementia

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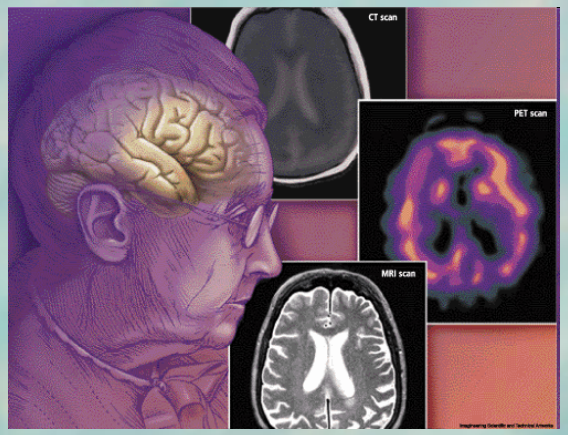
Dementia (1 of 1)

- According to DSM IV
  - Memory impairment and
  - Aphasia and/or
  - Apraxia and/or
  - Agnosia and/or
  - Disturbance in executive function



Dementia (2 of 2)





- Cognitive deficits must be
  - Severe enough to cause occupational and/or social impairment
  - Represent a decline from previous higher level of functioning

Dementia Types





- Alzheimer's Dementia (55%)
- Vascular Dementia (21%)
- Frontotemporal Dementia (8%)
- Lewy Body Dementia (5%)
- Others (11%)
  - Infectious
  - Metabolic

Behavior and Psychological Symptoms in Dementia (BPSD)





- Umbrella term
  - Noncognitive symtoms and behaviors occuring in dementia
  - Also referred as "noncognitive symptoms of dementia", "behavior problems", "disruptive behaviors", "neuropsychiatric symptoms", "aggressive behavior", and "agitation"
  - Fluctuate over time, psychomotor agitation being most persistent

BPSD





- Divided into 4 main subtypes
  - Physically aggressive behaviors
    - Hitting, kicking, biting
  - Physically nonaggressive behaviors
    - Pacing, inappropriately handling objects, wandering
  - Verbally nonaggressive agitation
    - Constant repetition of sentences or requests
  - Verbal aggression
    - Cursing, screaming

Common BPSD in Dementia





- Activity problems
  - Purposeless activity
  - Wandering
  - Inappropriate activities
- Paranoia and delusions
  - Suspicion
  - "People are stealing my things"
- Anxiety and phobias
- Aggression
  - Verbal more than physical
- Depression and hallucinations

Dementia Prevalence





- Elderly population (65+) in US
  - 35 million today
  - 70 million by 2030
- Individuals with dementia (AD and VD)
  - 3.8 million
  - 2.5 million with AD

BPSD Prevalence

- 60% to 98% of people with dementia experience some BPSD
- 33% of community dwelling people with dementia will have clinically significant BPSD
- 80% of people residing in care environments will have clinically significant BPSD

Impact of BPSD

- BPSD is often the triggering event
  - Recognition and referral
  - Families present in crisis and disarray
- BPSD is a major risk factor
  - Caregiver burden
    - Paranoia, wandering, aggression and sleep-wake cycle disturbances
  - Intutionalization
  - Increased staff turnover
  - Worse prognosis and rapid rate of illness progression
  - Adds to direct and indirect costs of care

Theories Explaining BPSD





- Three psychosocial theoretical models
  - "Unmet needs" model
    - Frequently not apparent to observer or caregiver
  - Behavioral/learning model
    - ABC model = Antecedents → Behavior → Consequences
  - Environmental vulnerability/reduced stress-threshold model
    - Lower threshold at which stimuli affects behavior
  - Not mutually exclusive

Assessing BPSD





- Recognition of BPSD
  - First and most important step
- Decide
  - Symptom of new or preexisting medical condition
  - Medication adverse effect

Nonpharmacologic Interventions (1 of 5)





- Five step approach
  - Identify the target symptoms
  - Determine when symptoms are likely to occur
  - Determine precipitants of symptoms
  - Plan interventions to reduce the precipitants
  - Consider alternative approaches if first approach fails

Nonpharmacologic Interventions (2 of 5)

- "Unmet needs"
  - Hunger, thirst, boredom, sleepy

- Environmental precipitant
  - Time change, new caregivers, new roommate

- Stress in patient-caregiver relationship
  - Inexperience, domineering, or impairment by medical or psychiatric disturbances

Nonpharmacologic Interventions (3 of 5)





- Specific interventions
  - Sensory interventions
    - Music, massage touch, white noise, pet therapy, sensory stimulation
  - Social contact
    - One-on-one interaction, pet visits, stimulated presence and videos
  - Behavior therapy
    - Differential reinforcement, cognitive, stimulus control
  - Staff training
  - Activities
    - Structured activities, exercise, outdoor walks, physical activities

Nonpharmacological interventions (4 of 5)





- Specific interventions
  - Environmental interventions
    - Wandering areas, natural or enhanced environments, reduced-stimulation environments
  - Medical/nursing care interventions
    - Light or sleep therapy, pain management, hearing aids, removal of restraints
  - Caregiver education
  - Combination therapy
    - Individualized and group treatments

Nonpharmacologic Interventions (5 of 5)





- Advantages
  - Addresses the psychosocial/environmental underlying reason for the behavior
  - Avoids limitation of pharmacologic therapy
    - Adverse side effects, drug-drug interactions, limited efficacy
  - Medication efficacy may mask actual need by eliminating the behavior which serves as a signal for the need

Barriers to Nonpharmacological Interventions

- Communication problems
- Treating the muti-faceted person
- Discounting the needs of the patient with dementia
- Limited resources
- Limited knowledge
- Belief that it will lead to additional expenses

Pharmacologic Interventions (1 of 3)





- Typical vs Atypical Antipsychotic
  - Haloperidol (increased risk of extrapyramidal symptoms)
  - Risperdal, olanzapine (increased risk for cardiovascular and cerebrovascular events)
- Antidepressants medications
  - SSRIs, No TCAs
- Cholinesterase inhibitors
  - Donepezil, galantamine

Pharmacological Interventions (2 of 3)





- Mood stabilizers
  - Not recommended
- Memantine
  - Improves cognitive and functional domains
  - No benefit for BPSD
- Benzodiazepines
  - Not recommended, should be avoided

Pharmacologic Interventions (3 of 3)





- No psychoactive medication should be continued indefinitely
- Attempts to withdraw should be made regularly

Future Challenges (1 of 2)

- Issue of individualization and proper selection of treatment
- Specifics of interventions
- Issue of costs
- Basic understanding of quality care in dementia
- System change
- Changes in reimbursement and structure of system of care

Future Challenges (2 of 2)





- No "magic pill"
- Continue efforts to understand symptom pathophysiology
- Perform high quality trial of nonpharmacological treatment in combination with drug therapy
- Support non-industry trial aimed at treating patients with BPSD





Questions????

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