Management of Behavioral Problems in Dementia

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Definition of Agitation

- Inappropriate verbal, vocal, or motor activity that is not judged by an outside observer to result directly from the needs or confusion of the individual

Cohen-Mansfield & Billig, 1986
Subtypes of Agitated Behavior

- Verbally Non-aggressive
  - Complaining
  - Negativism
  - Repetitive sentences or questions
  - Constant unwarranted requests for help
Subtypes of Agitated Behavior

- Verbally Aggressive
  - Cursing and verbal aggression
  - Making strange noises
  - Verbal sexual advances
  - Screaming
Subtypes of Agitated Behavior

- Physically Non-aggressive
  - Performing repetitious mannerisms
  - Inappropriate dressing and disrobing
  - Eating inappropriate substances
  - Handling things inappropriately
  - Trying to get to a different place
  - Pacing, aimless wandering
  - Intentional falling
  - General restlessness
  - Hoarding things
  - Hiding things
Subtypes of Agitated Behavior

- Physically Aggressive
  - Physical sexual advances
  - Hurting self and others
  - Throwing things
  - Scratching
  - Grabbing
  - Pushing
  - Kicking
  - Biting
  - Hitting
Explanatory Model for Agitation

- Direct Impact of Dementia
  - Behaviors result directly from pathophysiological changes in the brain
  - Severe organic brain deterioration results in behavioral disinhibition
Explanatory Model for Agitation

- Unmet Needs
  - Dementia results in a decreased ability to meet one’s needs due to decreased ability to communicate
  - Needs may be
    - Physical
    - Emotional
    - Environmental
    - Social
Explanatory Model for Agitation

- Behavioral
  - The problem behavior is controlled by its antecedents and consequences
  - Problem behaviors are learned through reinforcement by staff members or caregivers when a behavior is displayed
Explanatory Model for Agitation

- Environmental Vulnerability
  - Dementia results in greater vulnerability to the environment and a lower threshold at which stimuli affect behavior
  - A stimulus that may be appropriate for a cognitively intact person, may result in overreaction in a cognitively impaired person
Scales to Measure Agitation

- Cohen-Mansfield Agitation Inventory
  - Measures the frequency of agitation
  - Most widely used

- Brief Agitation Rating Scale
  - 10 item adaptation of CMAI

- Pittsburgh Agitation Scale
  - Measures the severity

- BEHAV-AD

- Neuropsychiatric Inventory
  - Used in many Alzheimer drug trials
Differential Diagnosis

■ Delirium
  ■ Common etiologies in the elderly
    • Infection, e.g. UTI
    • Electrolyte imbalance
    • Dehydration
    • Hypoglycemia
    • Hypoxia
    • Drug toxicity, e.g. anticholinergics, sedative hypnotics, narcotics

■ Depression
Differential Diagnosis

- Psychosis
  - Delusions
    - Persecutory (10 - 73% of Dementia)
      - Theft
      - Suspiciousness
      - Threats of bodily harm
    - Misidentification (25% of Dementia)
  - Hallucinations (21 -49% Dementia)
    - Visual is more common than auditory

- Anxiety
Differential Diagnosis

- Other “ Syndromes ”
  - Sundowning
    - Agitation caused by darkness
    - Involves alterations of the circadian rhythms and sensory inputs
    - It is not delirium
  - Catastrophic Reaction
    - An agitated state brought on by environmental or psychological stress
    - Often related to the caregiver
      - Impatience
      - Changing environments
      - Blaming
      - Giving complicated orders
History of the Behavior

- What is the behavior
- Circumstances it occurs
- How often does it occur
- How long does it last
- How intense is it
- What preceded it
- Is it associated with daily activities
- Does the patient have any control over it
- Does it occur when a specific person is present
- What number of people are around when it occurs
- What type of interaction is associated with it
- What events predict the behavior
- What function does it serve
Diagnostic Workup

- Do a work up to rule out delirium
  - Appropriate laboratory studies including urinalysis
  - Medication review for anticholinergics, sedative hypnotics, narcotics, and others
- Obtain their premorbid psychiatric history
- Find out from family if there were untreated behavioral issues
  - The patient was always a nervous person
  - The patient was always a difficult person
  - The patient had a history of domestic violence
  - The patient drank too much alcohol
Treating Depression

- **Antidepressants**
  - Avoid anticholinergics
    - Tricyclics (e.g. amitriptyline, nortriptyline)
    - Paroxetine
  - First line agents are SSRIs that have few drug interactions and do not have extremely long half lives
    - Citalopram
    - Escitalopram
    - Sertraline
  - Second line agents
    - Venlafaxine (monitor for hypertension)
    - Duloxetine (give with food due to nausea)
Treating Depression

- Antidepressants (Continued)
  - Other agents
    - Bupropion (may be activating)
    - Mirtazapine
    - Selegiline transdermal (MAOI, but useful if they won’t cooperate with a pill)

- If symptoms are mild
  - Acetylcholinesterase Inhibitor
  - Memantine

- ECT
Treating Psychosis

- What to do is controversial
- Antipsychotics have a black box warning for early mortality and cerebrovascular events
- The CATIE-AD study suggested that there was little benefit in dementia psychosis for antipsychotics versus placebo
- Many antipsychotics can cause weight gain, metabolic syndrome, and drug induced Parkinsonism
- Placebo controlled study of Divalproex sodium in agitation in Alzheimer’s disease was also negative
Treating Psychosis

- **What to do**
  - Does the symptom really merit treatment
    - Is the patient distressed by it?
    - Are there non-pharmacological interventions that can be made?
    - Who are we treating the staff, caregiver or patient?
    - Is the behavior disruptive to other residents?
    - Will the behavior result in loss of placement?
Treating Psychosis

- If the symptoms are mild consider
  - Acetylcholinesterase inhibitor
  - Memantine

- If an antipsychotic needs to be used
  - Document informed consent from the patient and/or caregiver
  - Response may occur with small dosages (unless the patient is chronically mentally ill)
Treating Anxiety

- Mild anxiety
  - Acetylcholinesterase inhibitor
  - Memantine

- Use an SSRI or Trazodone

- Other alternatives fail consider a benzodiazepine
  - Shorter acting, e.g. Lorazepam
  - Monitor for falls and confusion

- What about Quetiapine?
  - It may be beneficial for some patients, but this is not an indicated use.
  - It is an antipsychotic and has the same risks
Treating Sleep

- Treat the underlying problem
- If available light therapy
  - May help also sundowning
- First line
  - Ramelteon
  - Trazodone (Does not have a sleep indication)
  - Mirtazapine (Does not have a sleep indication)
- Second line
  - Zaleplon
  - Eszopiclone
    - It is debatable if these agents have any advantage over benzodiazepines
Non-Pharmacological Interventions

- Three categories
  - Unmet needs interventions
  - Learning and behavioral interventions
    - Includes caregiver interventions
  - Environmental and reduced stress-threshold interventions

- A recent meta-analysis concluded
  - Non-Pharmacological interventions may be beneficial, including bright lights
  - There were, however, too few well designed studies

Ayalon et al., Arch Intern Med; 2006