Approaches to Disruptive Behavior in Patients with Dementia

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Disclosures

• I will be discussing pharmaceuticals for uses that are not FDA approved

• I have no financial interests to disclose
Goals

• Provide brief background on physical, cognitive and emotional changes that accompany dementia
• Discuss common causes of behaviors
• Discuss common behaviors and ways to intervene
• Briefly discuss pharmacological options when nonpharmacologic management is not sufficient
Why is this so difficult?

• TIME!!!
• Education of caregivers with frequent staff turnover in facilities
• No “one size fits all” solution
• Level of care may be inappropriate
Positron Emission Tomography (PET) Cerebral Metabolism in Alzheimer’s Disease Progression and in Normal Brains

Normal | Early Alzheimer’s | Late Alzheimer’s | Child
Changes in Hearing and Auditory Processing

• Age related changes include:
  – reduction in hair and ganglion cells
  – reduced blood supply in cochlea/brainstem/auditory cortex
  – decreased inhibition of auditory neurons
  – Loss of pure tone sensitivity (higher frequency)
  – Perceptual changes (difficulty localizing sounds)
  – Reduced attention, working memory, executive functioning

  (Hafter et al., 2012)

• Central Auditory Dysfunction
  – Difficulty understanding speech with background noise
    • Can occur with normal aging
  – Increased in AD
  – Some studies showing that this can predict incipient dementia

(Larson et al., 2011)
Changes in Sensory Systems

• Vision Changes
  – Possible decrease in retinal ganglion cell number
  – Possible reduced blood flow to retina in AD
  – Possible plaques/tangles in retinal ganglion cells
  – Changes in optic nerve
  – Changes in brain nuclei
    • Suprachiasmatic nucleus- controls circadian rhythms- decreased volume and cell number
  – Visual cortex- (primary affected later in AD vs. other cortical regions)
    • Plaques, NF tangles, decreased neurons, astrocytic gliosis, dendritic pathology
      (Mullan et al, 2014)

• Reduced sense of smell
  – Reduced odor identification associated with progression to AD
    (Devanand, 2014)
Teepa Snow
Changes in Cognition

- **Learning and Memory**
  - Includes immediate, recent and long term memory
  - Repeats self, difficulty recalling recent events
- **Language**
  - Includes expressive (naming, word finding, grammar) and receptive
  - Word finding difficulty, talking around words, uses general pronouns vs. names
- **Executive Functioning**
  - Includes planning, decision making, working memory, mental flexibility, inhibition, error correction
  - Difficulty multitasking, more fatigue when performing tasks involving organization, planning, social gatherings
- **Complex Attention**
  - Includes sustained attention, divided attention, selective attention and processing speed
  - Increasingly distracted by environment, difficulty performing mental calculations
- **Perceptual-motor function**
  - Includes previously defined visual perception, visuoconstructional, praxis and gnosis
  - Difficulties with familiar activities (driving, tools), increased confusion at dusk with low light
- **Social cognition**
  - Recognition of emotion
  - Changes in personality, less ability to read social cues, decreased empathy, disinhibited
Changes in Emotion and Thought Content

- Anxiety
- Dysphoric mood
- Apathy
- Disinhibition
- Euphoric Mood
- Paranoia
- Hallucinations  (Haase et al, 2014)
Premorbid personality/Life History

• Personality Traits
  – Dementia causes changes in premorbid personality
  – Can increase or decrease personality disorders
  – Typically, as dementia progresses personality “lessens”
    • People become less outgoing, less conscientious etc...
  – Hostility does tend to be stable and is not as affected by dementia

• Social History
  – Any history of abuse?

• Occupational History
  – How was time occupied during majority of life?
Common Causes of Behaviors OR
What is the person trying to communicate?

• Physical needs or changes
• Environment not meeting needs
  – Includes caregivers, routines
• Task is too complex
• Emotional needs not being met
  – Loneliness/boredom
  – Psychiatric issues  (Understanding Difficult Behaviors)
ABCs

• Antecedent
  – What was happening immediately before the behavior occurred? (Who, what, when and where)
  – Still may be hard to ID the “why”

• Behavior
  – Good description of behavior needed (how long, how severe, was anyone hurt)
  – “Agitation” not good enough

• Consequence
  – Did it work to calm the patient?
  – How long did it take to calm patient?
Changes in Physical Health

• i.e. Rule out Delirium
  – Changes in medications?
    • Are PRNs being administered more frequently?
  – Changes in physical state?
    • When was last BM?, Are other’s sick? Recent UA?
  – Does person have hearing aids in? Glasses on?
    • Are they functioning properly?
  – Are they deconditioned?
    • Recent recovery or easily fatigued?
  – Are they in pain?
Environment

- Has there been a change?
  - New staff, room change, recent hospitalization
- Stimulation level (too much or too little)
  - TV, radio, staff conversations, décor, alarms, mirrors
  - Boredom- 1:1 time vs. small or large group
- Is lighting adequate?
- Are there enough signs/cues to help with finding way?
- Change in routine
  - If now in NH- What was routine like at home?
Caregiver Communication

• How does caregiver come across?
• Reduce distractions when talking
• Ensure good eye contact- on their level
• Move slowly, avoid startling
• Less is more (limit self to short sentences)
• Give adequate time to answer questions
• Limit but give choices
• Move to close ended questions if necessary
• Do not challenge misbeliefs (Understanding Difficult Behaviors)
3 R’s + 1

- Repeat
- Reassure
- Redirect
- Routine (Galvin, 2010)
Zone of Proximal Development

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Task Complexity

• Task too complicated
  – 2 step commands become difficult in moderate stages
  – Break down larger tasks (getting dressed into 1 step instructions)

• Task is unfamiliar
  – Difficulty learning new information

• Task needs to modified
  – May need to start task for them (Understanding Difficult Behaviors)
Assessing Emotional State

• Anxiety
  – Appears worried
  – Fear of being left alone
  – Tension, restlessness, fidgety

• Depression
  – Similar symptoms to cognitively intact people
  – Possible increase in irritability and social isolation
  – Sadness, crying spells and hopelessness  (Haase et al, 2014)
Assessing Emotional State cont...

• Apathy
  – Lack of motivation
  – Emotional blunting
  – Often very distressing to family

• Disinhibition
  – Decreased emotional regulation
  – Reduced impulse control
  – Violation of social norms

• Euphoria
  – Rare in dementia with exception of FTD (Haase et al, 2014)
Assessing Thoughts

• Delusions (fixed, false belief)
  – Paranoia
    • misplaced object and now thinks it was stolen

• Hallucinations (sensory perception without external stimulus)
  – Visual
    • Delirium, PD meds, LBD, Charles Bonnet
  – Auditory
    • Less common, later states in AD

• When do they occur?
• Do they cause distress?
Bathing/Dressing

• Bathing
  – Ensure temperature, lighting, privacy
  – Consider separating hair washing from bath
  – Matter-of-fact approach (avoid discussions over necessity)
  – Determine previous routine (when baths were taken at home, how often in that person’s generation)

• Dressing
  – Choose larger clothing, solid contrasting colors (less distraction)
  – Breakdown task and do one step at a time
  – Give short word/phrase instructions
  – Disrobing- try putting clothing on backwards

(Understanding Difficult Behaviors)
Eating/Sleeping

• Eating
  – Dental check-up
  – Reduce noise and distractions
  – Soothing music
  – Moisten food
  – Slow down, allow time for bites, verbally guide through meal

• Sleeping
  – Ensure pain is adequately treated
  – Sleep hygiene (naps during day, not enough exercise/stimulation, set wake/bedtime, caffeine/fluids)
  – Ensure temperature is appropriate
  – Avoid baths or other potentially upsetting activities in afternoon
  – Avoid laying out clothing (viewed as a wake-up signal)
  – Safety proof house to allow wandering at night (gaits, alarms)
  – Soft music
  – Massage (Understanding Difficult Behaviors)
Wandering

• Ensure not hungry or doesn’t need to use restroom
• Rule out medication (akathisia associated with antipsychotics and antidepressants)
• Go for a walk or take a drive
• Involve in activities (consider past skills)
• Make environment safe for wandering
  – Lighting
  – Locks/alarms/safety gaits
  – ID bracelet
• Inform neighbors
• Register with Alzheimer’s Association Safe Return Program
  (Understanding Difficult Behaviors)
Vocalizations

• What is the patient trying to communicate?
• Snacks/meals
• Toileting
• Reduce stimulation
• Massage/music
• Increase socialization
• Try other ways for patient to communicate (bell) (Understanding Difficult Behaviors)
Pharmacologic (off label)

- Antipsychotics
- Antidepressants
- Mood Stabilizers
- Cognitive Enhancers
- Nuvigil
- Buspar
Antipsychotics

• Psychosis with dementia is an indication for treatment
• CATIE- AD
  – “Adverse effects offset advantages in efficacy of atypical antipsychotic drugs for treatment of psychosis, aggression, or agitation in AD.”
  – Reduction in NPI (Z and R), CGIC (R), BPRS- hostile (Z and R), BPRS psychosis (R), Increase in BPRS withdrawn depression (Z)
  – May be more effective for specific symptoms (anger, aggression, paranoia)
  – Associated with worsening cognitive function equal to approximately 1 years deterioration compared to placebo
Antidepressants

- **Citalopram**
  - JAMA 2014- dose of 30mg
  - Improvement in NBRS, CGIC, NPI
  - Reduction in MMSE noted ~1 point

- **Citalopram and Zoloft**
  - Cochrane Review 2011 (Zoloft 25-200mg, Citalopram 20-30mg)
  - Reduction in agitation vs. placebo in 2 studies

- **Trazodone**
  - Cochrane Review 2004
  - Insufficient evidence to support it’s use.
Mood Stabilizers

• Valproic Acid
  – Mostly negative. Positive results have been seen in secondary analysis on a few. Tolerability concerns.

• Carbamazepine
  – At least 2 trials that show some improvement over placebo. Studies used small sample sizes. Significant side effects.

• Gabapentin
  – Some open label/care series show positive results
  – No placebo controlled trials.
Other Psychotropics

• Cognitive Enhancers
  – First line for reducing hallucinations in LBD
  – Cochrane Review of 3 trials of AChI vs. Placebo showed improvement in NPI at 6 months (Birks, 2006)

• Buspar
  – Case Reports
  – No controlled trials to support it’s use

• Neudexta
  – 1 Open label trail showing positive results
References

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