Dementia 101, or is it 1001?

Scott Thompson, MS, PA-C, CAQ-Psych

Disclosures

I have no relevant relationships with ineligible companies to disclose within the past 24 months.

Note: Ineligible companies are defined as those whose primary business is producing, marketing, selling, reselling, or distributing healthcare products used by or on patients. "Once you have seen one case of Dementia,

... you have seen one case of Dementia."

- Max Lugavere



Mild Cognitive Impairment

This is an intermediate stage between normal cognition and dementia, with preserved functional abilities.

Between 5 and 20% of persons over 65

Associated with common symptoms:

- Memory: forgetting recent events/repeating questions, etc.

- Reasoning: struggling with planning/problem solving

- Attantion: being easily distracted

- Language: taking much longer than usual to find words while communicating

- Visual depth perception: may have difficulty navigating stairs/assessing distances, etc.

(Some) Types of Dementia

- Alzheimers Disease
- Vascular Dementia
- Dementia with Lewy Bodies
- Frontotemporal Dementia
- Parkinsons Disease-Related Dementia
- Alcohol-Related Dementia
- Huntingtons Disease
- Creutzfeldt-Jakob disease
- Many others

Early signs and symptoms:



- forgetting things or recent events
- losing or misplacing things
- getting lost when walking or driving
- being confused, even in familiar places
- losing track of time
- difficulties solving problems or making decisions
- problems following conversations or trouble finding words
- difficulties performing familiar tasks
- misjudging distances to objects visually.

Behavior Changes

(some of them)

- inappropriate behavior
- withdrawal from work or social activities
- being less interested in other people's emotions.
- feeling anxious, sad or angry about memory loss
- personality changes



(Some) Factors involved in Dementia-related sx.'s

- Stress
- Aging
- Vitamin Deficiencies/Dietary
- Isolation
- Genetics
- Chronic Illness
- Medications/Substance Use
- Access to care





Alzheimer's Disease

- Qualifiers in Dx by Early or Late Onset (65)
- Most common form of dementia 55 million people worldwide, 60-70% of dementia cases
- Beta-amyloid peptides form plaques around neurons, tao proteins form tangles within neurons
- 50% of persons with Down syndrome will develop AD
- 6 million Americans, 7th leading cause of death

Vascular Dementia

- Second most common type of dementia
- Often associated with DM, HTN, hyperlipidemia, hyperhomocysteinemia, other vascular pathologies
- Progression often a "step-wise" pattern
- Often age 55-75; more men than women
- Other associated terms "Multi-Infarct Dementia" or "White Matter Disease"



Dementia with Lewy Bodies

- Onset usually 50-85 (wide range) symptoms hard to distinguish from Alzheimers and Parkinsons at times
- Lewy Bodies are deposits of alpha-synuclein proteins
- Mitochondria are drawn into the Lewy body and the mitochondrial integrity is lost. Lewy bodies are thought to be cytotoxic. Microtubule regression and mitochondrial loss results in decreased cellular energy and axonal transport that leads to cell death.
- Sx's: visual hallucinations, parkinsonism, cognitive fluctuations, dysautonomia, sleep disorders, and neuroleptic sensitivity



Parkinson's Diseaserelated Dementia

- Often presenting as cognitive impairment that starts a year or more after motor symptoms of Parkinsons present, vs. Lewy Body Dementia where cognitive decline is earliest symptom -However Parkinsons Dementia with much association with LBD in mechanism
- Associated with speech problems, confusion, memory impairment, disorientation
- Also associated with delusions and hallucinations
- PD can also cause visual-perceptual impairments

Frontotemporal Dementias

Starts earlier – many cases 45-65 years of age! (Affects the frontal and temporal lobes of the brain) Includes: frontotemporal lobar degeneration, Pick's disease, progressive aphasia and semantic dementia Men=Women

Possible mutations on chromosome 3, 9, 17 - strong genetic component (40% patients have family hx)

Common presenting symptoms:

- •Apathy or an unwillingness to talk
- •Change in personality and mood, such as depression
- •Lack of inhibition or lack of social tact
- •Obsessive or repetitive behavior, such as compulsively shaving or collecting items
- •Unusual verbal, physical or sexual behavior
- •Weight gain due to dramatic overeating







BIMS, MMSE, MOCA, SLUMS EXAMPLES OF SCREENING TESTS SHOULD BE DONE SERIALLY FOR MONITORING PAY ATTENTION TO THE INTANGIBLE/SUBTLE SIGNS

The Mental Status Exam in Dementia



Other Testing Considerations

- CBC, CMP, TSH, Folate, serum B12, Calcium, Phosphorus, Magnesium, Vit D level: possibly further iron studies, free T4, etc.
- U/A to rule out UTI; blood cultures if systemic infection suspected
- Imaging if indicated* CSF studies if indicated
- Referral considerations:

Treatments for Dementia

Acetylcholinesterase inhibitors



Adjunct Treatments

- 2nd generation antipsychotics for psychosis
- Rexulti (brexpiprazole) recently indicated for Agitation
- Treat anxiety with low dose SSRI's first
- Agitation/severe restlessness/anxiety may respond to CAUTIOUS use of benzodiazepines
- Mood Stabilizers for impulsivity/volatile behavioral outbursts
- Mirtazapine helpful for sleep/anorexia
- Folate, vitamin supplements
- TCA's also coming back to prominence in use for obsessiveness, anxiety
- Paroxetine worth avoiding, but useful for sexual preoccupation/aggressiveness
- Avoid hypnotics if possible
- Avoid anticholinergics, reference Beers list
- DE-prescribe when possible

How to "Prevent" Dementia:

- Avoid head injuries
- Avoid diabetes. Treat existing diabetes aggressively
- Control BP
- Protect Hearing
- Seek Education
- Avoid excess ETOH
- Stop smoking
- Avoid air pollution
- Lose wt.
- Exercise
- Treat Depression
- Socialize



Dietary Considerations

- "Super foods" to prevent dementia include: almonds, blueberries, dark chocolate, broccoli, avocado, wild salmon, grass-fed beef, eggs, dark leafy greens, extra virgin olive oil
- Foods to avoid include sugar, processed foods, food with high glycemic qualities, trans fats, etc.



Advising patients – planning ahead

- Identify people you trust to support you in making decisions and help you communicate your choices.
- Create an advance plan to tell people what your choices and preferences are for care and support.
- Bring your ID with your address and emergency contacts when leaving the house.
- Reach out to family and friends for help.
- Talk to people you know about how they can help you.
- Join a local support group.
- Need placement? POA/Guardian?



THANK YOU!

References

Systems Biology of Alzheimers Disease –Castrillo, Oliver Kaplan and Sadock's Synopsis of Psychiatry Psychiatry for the Neurologists – Friedman, Jeste Clinical Neurology for Psychiatrists – Kaufman Alzheimer's and Parkinson's Diseases – Hanin, Yoshida, Fisher Harrisons Manual of Internal Medicine – Fauci Handbook on the Neuropsychiatry of Aging and Dementia – Ravdin, Katzen Being Mortal – Gawande Dementia with Lewy Bodies – Beller National Institute of Health Medscape.org

Understanding the Changing Brain – A Positive Approach to Dementia Care - Snow