Learning Objectives

- Discuss the most common types of dementia
- Identify key presenting features which aid in diagnosis
- Differentiate dementia from delirium and depression
- Review commonly asked topics within the focus of dementia
Dementia - DSM V

- The development of multiple cognitive deficits manifested by both
  - Memory impairment (impaired ability to learn new information or to recall previously learned information).
  - One (or more) of the following cognitive disturbances:
    - Aphasia (language disturbance)
    - Apraxia (impaired ability to carry out motor activities despite intact motor function)
    - Agnosia (failure to recognize or identify objects despite intact sensory function)
    - Disturbance in executive functioning (e.g., planning, organizing, sequencing, abstracting)

- The cognitive deficits in the above criteria each cause significant impairment in social or occupational functioning and represent a significant decline from a previous level of functioning.
Dementia

An “umbrella” term used to describe a range of symptoms associated with cognitive impairment.

- Mixed Dementia
- Delirium
- Vit B12 deficiency
- Wernicke-Korsakoff
- Hypothyroid
- Normal Pressure Hydrocephalus
- Alzheimer’s (50% - 75%)
- Vascular (20% - 30%)
- Lewy Body (10% - 25%)
- Frontotemporal (10% - 15%)
- Parkinson Dementia
- Creutzfeldt-Jakob
- Depression
- Huntington’s
- Neurosyphilis
Alzheimer’s Disease

Presentation:

- Most common cause of dementia in older adults
- Insidious and gradual onset with memory loss and impaired learning
- Early: Memory impairment of recent events, depression and apathy
- Moderate to severe: Psychotic features, agitation, wandering
- Late: Gait disturbance, dysphagia, incontinence

Risk factors:

- Age, genetics *(family h/o first-degree relative doubles the risk)*, Down’s, TBI
An 87 yo male with a five year history of Alzheimer’s disease presents after exhibiting wandering behaviors such as leaving his assisted living facility without supervision and occasional verbally abusive outbursts at mealtime. The most appropriate initial management is to:

A) Minimize exposure to music and recreational activities to prevent overstimulation

B) Prescribe atypical antipsychotic agents such as olanzapine (Zyprexa)

C) Prescribe first-generation antipsychotic agents such as haloperidol (Haldol)

D) Turn off the lights in exit hallways to discourage wandering out of the building

E) Use non-pharmacologic behavioral management such as ‘repeat, reassure, and redirect”
While making rounds at a nursing home you see a 70-year-old female with dementia. The staff tells you that she has recently developed serious aggressive behaviors that include lashing out physically at caregivers on a regular basis. Nonpharmacologic interventions have not curbed her violent outbursts. Your evaluation does not reveal any treatable underlying conditions.

After a conversation about risks and benefits with her family and the nursing home staff, which one of the following would you recommend for this patient?

A) Diphenhydramine (Benadryl)
B) Aripiprazole (Abilify)
C) Clonazepam (Klonopin)
D) Mirtazapine (Remeron)
E) Ziprasidone (Geodon)
Vascular Dementia

Presentation:

• Based on severity and location of the cerebrovascular event
  – Since cases do not share a common etiology or mechanism, patients may have different clinical presentations

• Often a stepwise decline, but can be fluctuating or continuous worsening

Risk factors:

• HTN, HLP, DM, tobacco use, obesity

*Only 5-10% of patients have pure vascular dementia
The spouse of a patient who is being evaluated for suspected dementia reports that he is often drowsy during the daytime, despite taking long naps. The patient also has prolonged staring spells, disorganized speech, and visual hallucinations. These symptoms are most likely caused by which one of the following dementia subtypes?

A) Neurocognitive disorder with Lewy body dementia.
B) Alzheimer disease.
C) Frontotemporal dementia.
D) Neurocognitive dementia.
Dementia with Lewy Bodies

Presentation

• Insidious onset with gradual progression
• Core Clinical Features:
  – Fluctuating cognitive impairment
  – Detailed, recurrent visual hallucinations
  – Cognitive symptoms start shortly before or at the same time as motor symptoms (parkinsonism)
• Supportive Features:
  – REM sleep disorder, repeated falls, syncope, LOC

Risk factors

• Genetic risk identified but no family history in majority of cases
A 58-year-old minister comes to your office accompanied by his wife for a follow-up evaluation of personality changes. His wife says he has been making inappropriate comments to females in the church and has been more withdrawn at social gatherings. He has also not been preparing his sermons or balancing their checking account. These behaviors are uncharacteristic for him and his symptoms have been progressively worsening over the past 6–12 months. He is quiet during this discussion. He has been on an SSRI for 3 months with minimal to no improvement. The history is otherwise normal, as is a physical examination, including a focused neurologic examination. Short-term memory is intact.

This presentation is most consistent with which one of the following diagnoses?

A) Alzheimer’s disease
B) Frontotemporal dementia
C) Lewy body dementia
D) Mixed dementia
E) Vascular dementia
Frontotemporal Dementia

Presentation

• Insidious onset with gradual progression (75% of patients present between 56-65yo)
• Behavioral variant: disinhibition, apathy, lack of empathy, compulsive behavior, and hyperorality
• Language variant: Loss of word production, word finding, comprehension and grammar
• Extrapyramidal symptoms may be present

Risk factors:

• Motor neuron disease, up to 40% are familial

*May be mistaken for depression, bipolar d/o, or schizophrenia
A 70yo male presents with a four week history of increasing confusion and agitation. Prior to this change he was continent of both bowel and bladder. He reports that for the past three weeks he has had several episodes of urinary incontinence and is having increased difficulty with ambulating. There is no prior history of dementia. Laboratory studies, including TSH, B12, folate, and RPR, are relatively unremarkable. The appropriate next step is:

A) Begin a trial of vitamin B12
B) Begin carbidopa-levodopa (Sinemet)
C) Begin donepezil (Aricept)
D) Begin oxybutynin (Ditropan)
E) Obtain imaging studies of the brain
Normal Pressure Hydrocephalus

- Gradual accumulation of CSF causes enlarged brain ventricles
- Dementia
- Magnetic gait
- Urinary incontinence
- Treatment with ventriculoperitoneal shunting may improve symptoms
- Normal or slightly elevated CSF pressure
- Lumbar puncture with removal of 30-50 mL of CSF helps confirm the diagnosis

BRAIN IMAGING SHOWS VENTRICULAR ENLARGEMENT WITHOUT CORTICAL ATROPHY
An 80-year-old male is admitted to the hospital for pneumonia. He develops what the nurses describe to you as “sundowning” behavior that includes nighttime disorientation and some mild agitation. His wife says he is not like this at home. During morning rounds he is pleasant and answers questions appropriately except he forgets why he is in the hospital. His examination, including a neurologic examination, is normal except for crackles on chest auscultation consistent with the pneumonia. He is not able to say the days of the week backwards.

Which one of the following is most likely in this patient?

A) Alzheimer’s disease
B) Delirium
C) Vascular dementia
D) Encephalitis
E) Stroke
Delirium

Presentation:
- Acute, fluctuating syndrome of altered attention, awareness and cognition
- Cannot be accounted for by preexisting dementia; however, can co-exist

Risk factors:
- Recent hospitalization or acute illness
- Elderly
- Delirium-inducing medications
- Dementia
Delirium – DSM V

- Disturbance of consciousness (i.e., reduced clarity of awareness of the environment)
- Change in cognition (such as memory deficit, disorientation, language disturbance) or the development of a perceptual disturbance (hallucinations, visual illusions)
- Three Subtypes:
  - Hypoactive
  - Hyperactive
  - Normal alertness, unable to attend
- Rapid onset (usually hours to days) and fluctuating daily course
- Evidence from the history, physical examination or laboratory findings that the disturbance is caused by the direct physiological consequences of a general medical condition
# Delerium Prevention

<table>
<thead>
<tr>
<th>Target</th>
<th>Intervention</th>
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<tbody>
<tr>
<td>Cognitive impairment</td>
<td>Orientation protocol: board with names, daily schedule, and reorienting communication</td>
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<tr>
<td>Sleep deprivation</td>
<td>Non-pharmacologic: warm milk or herbal tea, music, massage noise reduction, essential oils 0.5 mg melatonin or 8 mg ramelton</td>
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<td>Immobility</td>
<td>Early mobilization: ambulation or ROM 3 times a day, minimal immobilizing equipment</td>
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<td>Visual impairment</td>
<td>Visual aids, adaptive equipment</td>
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<td>Hearing impairment</td>
<td>Amplification, cerumen removal, special communication techniques</td>
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<tr>
<td>Dehydration</td>
<td>Early recognition and volume repletion</td>
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<tr>
<td>Infection, HF, hypoxia, pain</td>
<td>Identify and treat underlying medical problems</td>
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Depression

Although more common in elderly, this is not a normal part of aging

- Sleep
- Interest
- Guilt
- Energy
- Concentration
- Appetite
- Psychomotor retardation
- Suicidal
Depression – DSM V

Five (or more) of the following symptoms have been present during the same two-week period and represent a change from previous functioning:

- At least one of the symptoms is either:
  - Depressed mood
  - Loss of interest or pleasure.
- Depressed mood most of the day, nearly every day
- Marked diminished interest or pleasure in normal activities
- Significant weight loss or gain
- Insomnia or hypersomnia nearly every day
- Psychomotor agitation or retardation nearly every day
- Fatigue or loss of energy nearly every day
- Feelings of worthlessness or excessive guilt
- Diminished ability to think or concentrate, or indecisiveness
- Recurrent thought of death or suicidal thoughts/actions
Questions?
Thank you!

“Trust yourself, you know more than you think you do.”
Benjamin Spock


Intraining Exams: ABFM 2016 and AOBFP 2012