Four Faces of Dementia

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Objectives
1. Recognize the presenting characteristics of four different types of dementia:
   -- Alzheimer’s
   -- Lewy Body
   -- Fronto-temporal
   -- Vascular
2. Understand that the type of dementia that a person has may influence communication strategies and care planning for that person

Cognitive Changes in Aging
Changes do occur
- requires more time and effort to learn something new
- may take longer to recall information on demand
- harder to pay attention to multiple tasks
Changes are limited
- Attained knowledge is preserved.
- extra time or effort can compensate
- changes do not materially affect day to day function

Preserved Daily Function
( Instrumental Activities of Daily Living )
• Telephone (and Electronic Technology)
• Transportation
• Medication
• Shopping
• Meal Preparation
• Finances
• Housekeeping

Definition of Dementia
(Major Neurocognitive Disorder)
• Impairment in intellectual ability
• Decline from previous level
• Sufficient to impact independent functioning
• Not due to acute confusional state (delirium) or psychiatric disorder

Mild Cognitive Impairment
(Minor Neurocognitive Disorder)
• Cognitive concern
• Selective cognitive impairment
  - Most often memory
  - Or, just one cognitive domain (next slide)
  - Confirm with testing (SLUMS or MoCA)
• Preserved daily function (IADLs)
DSM 5: Cognitive Domains

- MEMORY
- EXECUTIVE
- LANGUAGE
- PERCEPTUAL - MOTOR
- SOCIAL COGNITION (behavior)
- COMPLEX ATTENTION

Cognitive Domains

1. MEMORY
   Can this person learn new information?
   Recall recent events?

2. EXECUTIVE
   Is the person able to plan, organize, and sequence his/her activities?

3. LANGUAGE
   Can this person use words to express thoughts?
   Can he/she read? Write?

Cognitive Domains (cont)

4. PERCEPTUAL - MOTOR
   Getting lost in familiar environments.
   Difficulty using tools, or kitchen appliances.

5. SOCIAL COGNITION
   Has there been a change in behavior?
   A new insensitivity to social norms?

Cognitive Domains (cont)

6. COMPLEX ATTENTION: the ability to …
   - maintain attention in an environment with multiple stimuli (TV, radio, conversation)
   - keep new information in your mind (recalling phone numbers, or addresses just given, or reporting what was just said)
   - perform mental calculations

Common Causes of Dementia

- Neurodegenerative Disorders
  - Alzheimer’s Disease (50-70%)
  - Dementia with Lewy Bodies (15-25%)
  - Frontal Temporal Dementia (5-10%)

- Vascular Dementia (15-25%)

- Other (5-15%)
  - Trauma, Toxins (EtOH, meds), Tumors, NPH, Metabolic Disorders, Infections
Non-Alzheimer’s Dementias
Lewy Body, Frontal Temporal, Vascular

- May have Relative Preservation of Memory
  - MEMORY
  - EXECUTIVE
  - LANGUAGE
  - PERCEPTUAL - MOTOR
  - SOCIAL COGNITION
  - COMPLEX ATTENTION

Presentation . . .
- 72-year-old woman whose family is concerned because she has difficulty managing her finances and “wasn’t her usual very organized self” at a recent family gathering.
- Short stepped gait & several recent falls
- Family is disturbed by her reports of seeing little children in her home in the early evening.

Presentation (cont)
- Good days/ bad days (unpredictable)
- Family concerns about safety with bathing
- A bit argumentative . . . “nothing is wrong”
- Memory more appears to be intact as evidenced by details provided . . .

Lewy Body Dementia

Dementia (impaired executive function)

Core Features
- Fluctuation day to day (deficit of attention)
- Parkinsonism (within 1-2 years of dementia)
- Visual Hallucinations

Suggestive
- Severe Sensitivity to neuroleptics
- Sleep behavior Disorder (act out dreams)

Cognitive Domains: Lewy Body

MEMORY
- EXECUTIVE
- LANGUAGE
- PERCEPTUAL - MOTOR

SOCIAL COGNITION
- ATTENTION (good & bad days)

Early LBD Changes
- Rapid mood shifts/ Irritability
- Good days/ bad days (unpredictable)
- Impaired motor function, especially Gait and Balance (falls)
- Visuospatial changes
  - Person may say eyes need checking
  - May “see” but not “perceive”
- History of vivid dreams or act out dreams
For Health Care Providers (LBD)

- **Executive Function**
  - Instrumental Activities of Daily Living
    - Planning, organizing, sequencing
    - R/O frailty, depression, psychosocial
    - R/O hearing and vision
  - SLUMS
    - Clock Drawing Task (also Perceptual-Motor)
  - MoCA
    - Trail Making B and Clockdrawing
    - Similarities (abstraction)

For Health Care Providers (LBD)

- **Tests of Attention**
  - Months of Year (Days of Week) backwards
  - Serial 7’s or spell World backwards
  - SLUMS – Digits backwards

- **Tests of Perceptual-Motor**
  - Left Right Orientation (new)
  - SLUMS
    - Identify a triangle. Which Object is largest?

- **Gait & Balance** = Watch the person walk

Interventions LBD

- Family Education and Intervention
  (family may feel more angry & guilty than in AD)
- Reassure person & family (they may doubt own perceptions/ exhausted/ frustrated/ doubt is dementia)
- Avoid stress & demands on “bad” days

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Four faces of Dementia

Presentation...
- 62-year-old man recently “let go” by the company for which he had worked as an engineer for many years.
- Reports of inappropriate comments he made about his co-workers which were very out of character.
- Less concern about issues concerning his wife and family.
- Recent weight gain of about 10 lbs.

Frontal Temporal Dementia (FTD)
- Onset before age 65
- Early Impairments
  - Executive Dysfunction (planning & organizing)
  - Behavior & personality changes (frontal)
  - Speech & Language impairments (temporal)
- Relative Sparing
  - Memory (short term and medium recall)
  - Perception & Spatial orientation
- Positive Family History in 10-40%

FTD – Frontal Variant (Behaviors Prominent)
- Disinhibited (loss of “social filter”)
  - Socially inappropriate behavior, impulsive
- Apathy – Loss of interest, drive, motivation
- Loss of empathy – less responsive to other people’s feelings, decreased social interest, loss of personal warmth
- Hyperorality – excessive intake or altered food preferences

FTD – Temporal Variant (Language Prominent)
- Non-Fluent (speech does not flow)
  - Stuttering speech (non-fluent)
  - Word finding problems & Mispronunciation
  - Difficulty repeating
  - Behaviors occur later
- Fluent (speech flows, but may not make sense)
  - Poor comprehension
  - Loss of knowledge - words, facts, objects, people
  - Behaviors occur earlier

Cognitive Domains: FTD
- MEMORY
- EXECUTIVE
- LANGUAGE
- PERCEPTUAL - MOTOR
- SOCIAL COGNITION
- COMPLEX ATTENTION
Early FTD Changes

- Trouble with law (shoplifting) & scams
- Reduced insight into behavior & feelings:
  - their own & others
- Difficulty adapting to changes in plans
- Impulsive & distractible
- Word finding difficulty, fewer words used

For Health Care Providers (LBD)

- Executive Function
  - See previous slides re SLUMS & MoCA
  - Frontal Assessment Battery

For Health Care Providers (FTD)

Frontal Lobe Battery *

Similarities
Luria Test – (Fist – Edge – Palm)
Conflicting instructions – “Tap twice when I tap once; tap once when I tap twice”
Inhibitory Control – “Tap once when I tap once; Do not tap when I tap twice”
Prehension behavior – “Do not take my hands”


Interventions FTD

- Protect from scams & illegal activity
  - add family to checking account
  - limit access to money and deeds
- Recognize communication challenges
- As with any dementia
  - Caregiver interventions
  - Consistent schedule
  - Simplify environment:
    - Attention to the Task

http://www.FTD-Picks.org

Behavioral Variant FTD

You don’t have to take this journey alone...

The most common dementia for those under 65?
It’s not Alzheimer’s.

http://www.FTD-Picks.org
Presentation

- 72-year-old smoker with difficulty managing his finances after hospitalization 1 year ago. When family asked about memory, “All old people have a little bit of forgetfulness”
- He has been “dragging his right leg” towards the end of the day for the past year.
- Now slurred speech and worsening of memory
- Hx of depression and anxiety over past year
- PMH: Hypertension, Diabetes type 2, Hyperlipidemia

Vascular Dementia (VasD)

Classic Clinical Features
- Sudden onset and/or stepwise decline;
- “Patchy” cognitive deficits
- Focal neurologic deficits

Cardiovascular Risk Factors

Prevalence
- Sole cause in < 10% of dementia autopsies
- Contributing cause in up to to 40%
  - Often coexists with AD

May have gradual onset of symptoms

Vascular Dementia (VasD)

Symptoms and findings on exam depend on
- Location of vascular disease
- Type of stroke and the blood vessels involved
  - Ischemic vs Hemorrhagic
  - Large blood Vessels vs Small Vessel Disease

Small Vessel Disease (more gradual in onset)
- 50% of cases of Vascular Dementia
- Slow motor processes and information processing
- Associated with “White Matter Changes”

Cognitive Domains: Vascular Dementia

- ± MEMORY
- EXECUTIVE
- LANGUAGE
- PERCEPTUAL - MOTOR
- SOCIAL COGNITION (behavior)
- COMPLEX ATTENTION
Four Faces of Dementia

**Possible Early VasD Changes**
- Varies with location of brain dysfunction
- Slurred/impaired speech
- Reduced function in one or more parts of body
- Changes in gait, not due to Parkinson’s
- Depression, anxiety & frustration
  - due to intact insight in early stages
- Slowing of cognitive and motor processes
- Laughs or cries inappropriately

**Interventions VasD**
- Prevention: Address CV Risk Factors
- Discuss idiosyncrasy of course
- Respect person’s own insight
- Respond to specific symptoms
  - cueing for memory loss
  - speech support
  - motor function adaptation
- Address depression & distress

**Presentation . . .**
- 80 year old female
- Insidious onset and gradual progression
  - Memory impairment
  - Gets lost in familiar places
  - Misplaces things & can’t find them
  - Difficulty adapting to changes in plans
- Gait and ADLs Preserved
- Intact Social Graces

**Early Alzheimer’s Disease (AD)**
- Symptoms usually after age 65
- Insidious onset and gradual progression
- Memory Plus one other domain
  - Memory loss early, prominent
  - Language difficulty
  - Difficulty planning and organizing
- Gait and ADLs Preserved
- Intact Social Graces and Masking Behaviors
Cognitive Domains: Early AD

- MEMORY
- LANGUAGE
- PERCEPTUAL - MOTOR
- EXECUTIVE
- SOCIAL COGNITION
- COMPLEX ATTENTION

Early AD Changes

- Memory impairment
- Gets lost in familiar places
- Misplaces things & can’t find them
- Difficulty adapting to changes in plans
- Subtle reduction in nuance in language & in adapting conversation to current context, increasing reliance on clichés, reduced pool of words to use

For Healthcare Providers (AD)

Memory
-- Delayed Recall – 5 unrelated words

Language
-- Verbal Fluency: animal naming in one minute
-- Confrontation Naming
  High frequency = watch
  Low frequency = face, band, hands, crystal, clasp

Executive Function (see previous slides)

Interventions AD

- Discuss course & future medical, financial, legal issues
- Look for other medical issues
- Other
  -- Caregiver interactions
  -- Task and Daily routines
  -- Environmental Interventions

Early Identification of Dementia
(Instrumental Activities of Daily Living)

- Telephone (and Electronic Technology)
- Transportation
- Medication
- Shopping
- Meal Preparation
- Finances
- Housekeeping
Conclusions

1. A person with Mild Cognitive Impairment (MCI) is still able to function day to day (IADLs)
2. A person with non-Alzheimer’s dementia may present with relative sparing of memory.
3. Recognize the Four Faces of Dementia.
4. The type of dementia that a person has may influence communication strategies and care planning for that person.

References