Recognizing Dementia in Primary Care

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Learning Objectives

- Identify the characteristics, epidemiology, and presentation factors that indicate dementia.
- Become familiar with assessment tools for dementia.
Dementia Characteristics

- Progressive decline of intellectual ability from a previously attained level with no alteration of consciousness

- Interferes with patient’s life: personal relationships, job, ability to perform activities of daily living
Decline in Cognitive Functions

- Memory
- Orientation
- Language
- Judgement
- Perception
- Attention
- Ability to perform tasks in sequence
Epidemiology

- 4th leading cause of death in the elderly
- Life expectancy after diagnosis: 3-15 years
- Long term care costs for those >65 is $40 billion per year

Wolfson, NEJM April, 2001
Prevalence of Alzheimer’s Disease by Age
1% at age 60, doubles every five years. Curve flattens out by age 90.

Dementia Is Often Missed!

- Mild symptoms are not recognized by PCPs 50% of the time.
- Reversible dementias have better outcomes when treated early.
- Significant consequences for patients and caregivers.
Dementia Is Missed By Families

- Cognitive decline may be considered normal aging by families
- Cultural factors affect reporting of dementia
- Social skills are preserved until late
Quick Clues to Dementia

- Difficult to obtain clear history of patient complaints
- Content-empty speech
- Slovenly appearance
- Loss of IADL function

Additional Clues

- Patient forgets appointments
- Poor compliance with treatment
- Patient is always accompanied by family member
- Patient drops favored activities
- Poor hygiene
Clinical Presentation

- Dementia onset is insidious
- Social skills are preserved until late in course
- Paranoia: “People are stealing from me”
- Concrete thinking (failure to abstract)
- Inability to complete complex tasks i.e. checkbook
Clinical Presentation (con’t)

- **EARLY:**
  - Mild forgetfulness, concentration deficits
  - Repetitious or inconsistent behavior

- **LATE:**
  - Impaired judgment & inability to abstract
  - Personality change with rigidity, perseveration, irritability, and confusion
  - Loss of self-care
Diagnostic Tools

- Mini Cog Exam
- Clock Drawing Test
- Animal Naming
- Mini Mental Status Exam
- Functional Assessment
- Geriatric Depression Scale
Mini Cog Exam

- A quick test with a high degree of certainty
- Combines the most sensitive parts of the MMSE and the Clock Drawing test
- The patient is asked to do the 3 item recall and draw a clock
- If no mistakes the probability of no dementia is >95%
MINI COG EXAM

THREE ITEM RECALL AT 1 MINUTE

- RECALLS 0 or 1: LR = 3.1 of dementia
- RECALLS 2: LR = 0.5
- RECALLS ALL 3: LR = 0.06

CLOCK DRAWING TEST

- ABNORMAL: LR = 24
- ALMOST NORMAL: LR = 0.8
- NORMAL: LR = 0.2

Clock Drawing Test

MoVIES ID# 245
Date 10/21/87
Age 75
MMSE 27/30
Clock Drawing Test: 7 Years Later

MoVIES ID# 245
Date 02/02/94
Age 81
MMSE 23/30
Clock Drawing Test: 9 Years Later
Clock Drawing Test: 11 Years Later

MoVIES ID# 245
Date 10/20/98
Age 86
MMSE 8/30

Clock
“ANIMAL NAMING”

• “NAME AS MANY ANIMALS AS YOU CAN. GO!”
• Average Score is 18 Words in One Minute.
• Less than 12 is Abnormal.
• Correlates well with MMSE.

Mini-Mental Status Exam (MMSE)

**Orientation:** 5-item DATE and PLACE
**Registration:** Repeat 3 objects
**Attention and Calculation:** Serial 7's, "world" backwards
**Recall:** 3 objects

**Language:**
Name a pencil and watch, Repeat: "No ifs, ands, or buts."
Follow command: "Take a paper ...", Do the following: "Close your eyes", Write a sentence & Copy design.

Maximum Score: 30
- less than 24 points has high probability of cognitive deficit
- MMSE is education dependent & has been validated in other cultures
Functional Impairment

Instrumental Activities of Daily Living

- IADLs – Impaired Early On
  - Using telephone
  - Shopping for all needs
  - Food preparation & Safety
  - Housekeeping
  - Laundry
  - Transportation
  - Medications
  - Managing money
Functional Assessment (con’t)

- Pay attention to, understand, and discuss a TV show, book, or magazine
- Remember appointments, family occasions, holidays, and medications
- Drive, or use public transportation
Activities of Daily Living

- ADLs
  - Dressing
  - Toileting
  - Transfers
  - Continence
  - Feeding
  - Bathing

- Used to assess progression of dementia and determine degree of caregiver burden
Diagnostic Evaluation of Dementia

- H&P and info from caregiver
- Lab: CBC, CMP, TFTs, RPR, Vit B12, Folate
- CT of head
- Other tests as indicated:
  - EEG, Lumbar puncture, HIV
  - MRI, PET scan, or brain biopsy
Criteria for **Probable Alzheimer’s Disease**

- Onset between ages 40 and 90
- Absence of other disorders to account for dementia
- Neuropsychological examination with deficits in at least two areas of cognition
- Progressive worsening of memory and other cognitive functions
NEED TO EXCLUDE

- Depression
- Medication & OTC’s
- Alcohol abuse
- Delirium or Infection
- Tumors i.e., frontal lobe
- Metabolic disorders
- Head injury
- Vision or hearing problems
Types of Dementia

- Alzheimer’s Disease
- Multi-infarct Dementia
- Diffuse Lewy Body Disease
- Normal Pressure Hydrocephalus
- Frontotemporal Dementia
- AIDS Dementia
Differential Diagnosis

- Alzheimer's disease 70%
- Multi-infarct dementia 10% - 20%
- Brain tumors 5%
- Unknown causes 10-15%

- Among the very old (over age 85), vascular dementia and Alzheimer's disease account for the vast majority
Alzheimer’s Dementia

- Slowly progressive
- Linear decline in cognition
Alzheimer’s CT Scan

Brain with Alzheimer’s Disease

Normally Aged Brain
Multi-infarct Dementia

Stepwise loss of cognition with each infarct
Normal Pressure Hydrocephalus

- “Wet, Wacky and Wobbly”
- Dementia with urinary incontinence and ataxia
- CT shows enlargement of lateral ventricles
- Can be treated
Diffuse Lewy Body Disease

- Like Alzheimer's, but more rapid
- Associated with a Parkinson’s-like movement disorder
- Poor response to L-dopa
- Often have detailed visual hallucinations
- Do not use antipsychotics
Other Points to Cover

- SAFETY ISSUES:
  - Patient and Caregiver
  - Physical and verbal aggression
  - Elder abuse

- FAMILY CONTACTS

- ADVANCED DIRECTIVES

- SOCIAL WORKER FOR RESOURCES
Summary

- Be suspicious in older patients
- Use cognitive screening tools
  - Mini Cog, MMSE, Clock drawing
  - Deficits in two or more cognitive domains
- Carefully exclude reversible causes of dementia
- Refer to specialist if in doubt