Dementia (definition)

- "the development of multiple cognitive deficits that include memory impairment and at least one of the following, aphasia, apraxia, agnosia or disturbances in executive functions"

- Where executive functions is the ability to inhibit inappropriate responses and to select key information for actions....
Differential Diagnosis of Dementia

- Vascular dementias
  - Multi-infarct dementia
  - Binswanger’s disease
- Vascular dementias and Alzheimer’s disease (AD)
- Alzheimer’s disease (AD)
- Other dementias
  - Frontal lobe dementia
  - Creutzfeldt-Jakob disease
  - Corticobasal degeneration
  - Progressive supranuclear palsy
  - Many others
- Lewy body dementias
  - Parkinson’s disease
  - Diffuse Lewy body disease
  - Lewy body variant of AD
  - AD and Lewy body dementias

Clinical Course (symptoms)

- Memory loss affecting every day living
- Difficulty performing familiar tasks
- Problems naming objects
- Getting lost in familiar places
- Decrease or poor judgment
- Problems with abstract thinking
- Changes in mood, behavior and personality
- Loss of interest or lack of initiative in usual activities

Types of Dementias

- Alzheimer’s Disease
- Vascular Dementia
- Lewy Body Dementia
- Parkinson’s Disease Dementia
- Frontotemporal Dementia
- Normal Pressure Hydrocephalus (NPH)
- HIV Dementia
- Multiple Sclerosis Dementia
Behavioral Disturbances in Cognitive Disorders
- Psychotic Symptoms
- Apathy
- Agitation
- Irritable Affect
- Inappropriate Patterns of Activity
- Depression

Delirium
- Acute, potentially catastrophic syndrome
- Hyperactive, hypoactive and mixed forms.
- Increase risk with dementia, strokes, polypharmacy and medical conditions.
- Hospital mortality increase 2 to 20 folds in patients with delirium

Psychotic Symptoms
- Persecutory ideations reflected in accusations of theft or malicious intent.
- Hallucinations, auditory and visual. Sensory experiences not corroborated by family members and caregivers.

Several studies link psychosis to dementia severity and cognitive deficits. Psychosis appear to accelerate decline.
Apathy
- Prefrontal location
- Apathetic-akinetico-abulic, decrease awareness of internal and external sources of stimulation.
- Hyperkinetic-impulsive, increase in motor activities, poorly modulated patterns of emotions and aggression.

Symptoms severity correlated with dementia severity and presence of EPS predict outcome

Agitation
- Psychomotor agitation
- Wandering
- Non directional pacing
- Increase verbal output

No relationship with level of cognitive impairment. Inverse relationship between agitation and age is documented.

Irritable Affect
- Verbal and physical manifestations of irritability
- Correlated with cognitive impairment.
- Other important variable associated with irritable affect is pre morbid aggression and Hx of violent behavior

Common symptom impacting rates of institutionalization
Inappropriate Patterns of Activity
- Repetitive, purposeless behaviors
- Collecting objects
- Buttoning/unbuttoning clothing
- Deviation from socially prescribed conduct

Related to degenerative involvement of caudate and frontothalamic areas

Depression
- Prevalence rate from 10-60% in patients with clinical diagnosis of AD
- Associated findings are increase motor activity, decrease spontaneous participation, sleep in diurnal cycles and irritability.

Correlated with mild cognitive impairment and premorbid psychiatric history

Behavioral Disturbances and Neurotransmitter
- **Acetylcholine**: memory impairment, delirium, delusions and some form of agitation
- **Dopamine**: parkinsonism, depression and abnormal movements
- **Noradrenaline**: depression, lack of attention, anxiety and fears
- **Serotonin**: anxiety, depression, OCD and irrational worries
- **Glutamate**: neurotoxicity and cell damage
Clinical Assessment (the diagnostic process)

- Physical examination and medical history
- Personal interview with patient and family (social history)
- Mental status examination
- Mini Mental State Examination (MMSE)
- Physical Self Maintenance Scale (PSMS)
- Neurological Examination (if indicated)
- Psychological Testing (if indicated)
- EEG and Brain scans
- Laboratory Studies

Stages of Alzheimer’s Disease (applicable to other dementias)

- Initial/Mild (2-4 years)
  - Intermediate/Moderate (2-8 years)
  - Advance/Severe (1-3 years)

Initial/Mild Stage

- Say the same thing over and over
- Get lost easily
- Lose interest in tasks they once enjoyed
- Trouble finding names
- Lose things frequently
- Personality changes
- Depression and anxiety with feelings of panic
Intermediate/Moderate Stage
- More confused
- Difficulty dressing or simple activities
- False believe or believe things are real when they are not
- Often require supervision
- Psychomotor hyperactivity
- Agitation and irritability
- Insomnia/lack of appetite

Advance/Severe Stage
"Individual cannot do things on their own anymore"
- Not able to understand commands (words)
- No longer able to recognize who they are (mirror)
- No longer recognize family members
- Not able to care for themselves
- Difficult to treat depression and anhedonia/apathy

Management of Illness
- Pharmacologic
- Behavioral Interventions
- Family Support and Education
- Overall Integration of Modalities in one Treatment Plan
Integration of interventions and Modalities

- Good communication with PCP
- Frequent review of plan of care
- Seek and share information about community resources
- Counseling for legal and financial issues as needed
- Support family and caregivers (Support group)

Pharmacologic Treatment

- Antipsychotic Agents
- Antidepressants
- Mood Stabilizers
- Cholinesterase Inhibitors
- Benzodiazepines
- Beta Blockers
- NMDA receptor antagonist (Memantine)

Antipsychotic

- Typical vs Atypical (new generation)
- Risperidone
- Zyprexa
- Seroquel
- Abilify
- Geodon ***
- Invega
Antidepressant

- First line SSRI's
- Sertraline, Citalopram, Escitalopram, Paxil
- Dual Actions; Bupropion, Desvenlafaxin, Mirtazapine
- Augmentation; LiCo, Stimulant, Abilify, Seroquel XR
- ECT

Mood Stabilizers

- Lithium Carbonate
- Valproic Acid
- Carbamezapine
- Lamorgine
- Topiramate

Cholinesesterase Inhibitors

- Tacrine
- Aricept
- Remynil
- Exelon (patch)
NMDA Receptor Antagonist

- Namenda

Behavioral Interventions

- Behavior modification
- Family education in de-escalation
- Identify repeated episodes
- Identify victims
- State required behavior simply and in the affirmative
- Medicate psychosis, anxiety and depression

Conclusions

- Early diagnosis and treatment
- Target cognitive and non-cognitive deficits
- Balance supervision with meaningful activities
- Educate, counseling and advise regarding treatment interventions, clinical plateaus, prognosis and transitions
“Among the most frustrating challenges for any health care professional are treating and managing the distress of an agitated patient with dementia.”