

DEMENTIA AND FALLS

NEW HAMPSHIRE FALLS PREVENTION
CONFERENCE

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Outline

- Introduction
- Butterfly Meditation
- Discussion of Dementia
- Discussion of Falls
- Discussion of relationship of dementia and falls

POPULATION PROJECTIONS

US CENSUS BUREAU

- 2015: 14.9% of the US population >65 years
- 2030: 20.6% of the US population >65 years
- 2050: 4.8% of the US population >85 years
- 2012: 11.4% of those >65 years have diagnosis of Alzheimer Dementia

CHANGES ASSOCIATED WITH AGING

SENSORY:

- Decrease in perception
- Decrease in depth perception
- Decrease in hearing

MOTOR:

- Decrease in reaction time
- Decrease in processing

DEFINITION OF DEMENTIA

- Chronic acquired decline in one or more cognitive domains sufficient to affect daily life.
- Cognitive Domains:
 - Learning / Memory
 - Complex attention
 - Language
 - Visual Spatial
 - Executive Function

CONTINUUM NORMAL AGING TO DEMENTIA

NORMAL AGING:

- Mild decline in memory
- More effort to learn/recall
- No impairment in social/work function.

CONTINUUM NORMAL AGING TO DEMENTIA

MILD COGNITIVE IMPAIRMENT

- Subjective complaint: memory, language, visual-spatial, executive function
- No impairment in social/occupational function

CONTINUUM NORMAL AGING TO DEMENTIA

DEMENTIA:

- Memory impairment
- AND a disturbance in AT LEAST ONE of the following: aphasia, apraxia, agnosia, altered executive function
- AND significant impairment in social/occupational function

AMERICAN ACADEMY of NEUROLOGY GUIDELINES

Medical Evaluation:

- Neuroimaging
- LABS: thyroid, cbc, electrolytes, renal function, B12, folate, Liver function
- Depression

TYPES OF DEMENTIA

Alzheimer's Dementia:

- Memory, language, visuospatial
- Apraxia occurs late in course
- Gradual progression over 10 years
- No other medical or psychiatric cause

TYPES OF DEMENTIA

Vascular Dementia

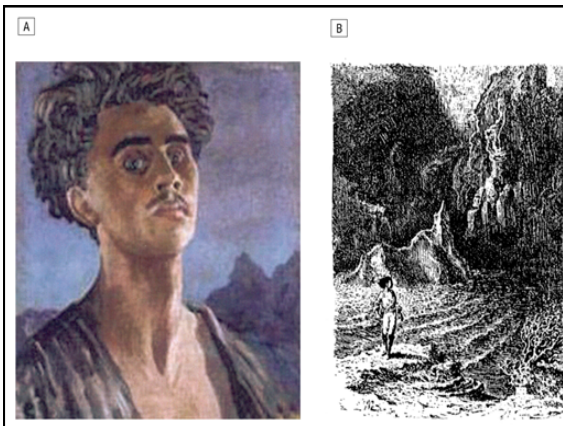
- Sudden or stepwise
- Related to area of ischemia
- Gradual or stepwise



TYPES OF DEMENTIA

Lewy Body Dementia

- Memory, visuospatial ,hallucinations, fluctuating
- Parkinsonism
- Gradual (faster than AD)
- Global atrophy





TYPES OF DEMENTIA

Frontotemporal Dementia:

- Gradual (<60yo)
- Executive dysfunction, personality change
- Disinhibition, language changes
- Memory may remain intact
- Gradual (faster than AD)
- Atrophy in Frontal and Temporal Lobes



CHANGES WITH AGING AND DEMENTIA

- Agnosia: failure to recognize familiar objects
- Apraxia: difficulty initiating purposeful movement
- Gait dysfunction
- Hallucinations



FALLS: DEFINITION

- Individual unexpectedly comes to rest on the ground or another lower level without known loss of consciousness.
- Excludes seizure, stroke, syncope

EPIDEMIOLOGY

- Community Dwelling: 30% (0 – 1 risk factor)
69-78% (4 or more)
- Nursing Facility Residents: 50%
- Increase morbidity and mortality
- Multifactorial etiology, prevention, and intervention

MECHANISM

GAIT: changes occurs due to

- Muscle weakness
- Sensory loss
- Cerebral Vascular Disease (executive dysfunction, depression)
- Peripheral Neuropathy

FALLS AND AGING

- Functional impairment increases the risk of falling
- Falls are the leading cause of injuries in aging Americans
- Cognitive impairment increased fall risk
- Dementia: 3x increase in hip fracture (National Council on Aging)

ETIOLOGY OF FALLS

Multifactorial:

- Intrinsic: balance, weakness, chronic illness, visual impairment, cognitive impairment
- Extrinsic: polypharmacy
- Environmental: lighting, loose carpets, safety equipment