

Clinical Diagnostic Criteria for AD and FTD

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CLINICAL DIAGNOSTIC CRITERIA FOR AD AND FTD

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Potential Conflicts: Research support to conduct clinical trials for Merck, Myriad, Eisai and Wyeth

Overview

- Importance of making a specific diagnosis
- Clinical features and diagnostic criteria for Alzheimer's disease
- Clinical features and diagnostic criteria for frontotemporal dementia
- Reasons for difficulty with diagnosis

AD or FTD Does it Make a Difference?

- YES!!!!
- Drug treatment differs
 - In FTD no evidence of a cholinergic deficiency
 - In FTD impaired initiative is easily confused with depression
 - In FTD amyloid strategies are inappropriate
- Management differs
 - In FTD behavior less likely to respond to usual drug treatments and appear to be more spontaneous rather than responsive to environment
 - Understanding behavior can help caregivers
- Prognosis and genetics differ

Alzheimer's Disease

- Insidious onset of gradual progressive dementia
- Memory loss usually initial and most prominent symptom
- No focal weakness or sensory loss
- Gait normal and continent until late in the illness
- NINCDS-ADRDA criteria validated

NINCDS/ADRDA

- Criteria for Diagnosis of Probable AD:
 - (a) Dementia established by clinical examination, and documented by a standard test of cognitive function, and confirmed by neuropsychological tests.
 - (b) Significant deficiencies in two or more areas of cognition, for example, word comprehension and task-completion ability.
 - (c) Progressive deterioration of memory and other cognitive functions.
 - (d) No loss of consciousness.
 - (e) Onset from age 40 to 90, typically after 65.
 - (f) No other diseases or disorders that could account for the loss of memory and cognition.

Frontotemporal Dementia

- Insidious onset of progressive dementia
- Disturbing behavior and speech problems most prominent, less evident memory loss
- Perseveration, decreased verbal fluency
- Typical behavioral changes including apathy unrestrained and inappropriate social conduct
- Memory loss often not prominent; AD screening tests may be insensitive
- May be associated with motor neuron disease

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FTD: Three Clinical profiles

- Frontotemporal dementia behavioral variant (FTDbv): Personality change, disordered social conduct. Instrumental functions relatively well preserved.
- Progressive nonfluent aphasia (PA): Expressive language deficit is the dominant feature initially and throughout the illness. Otherwise cognition relatively well preserved.
- Semantic aphasia and associative agnosia dementia (Semantic dementia, SD): impaired understanding of word meaning and/or object identity.

Diagnostic features of frontotemporal dementia behavioral variant

- I. Core diagnostic features of FTD
 - A. Insidious onset and gradual progression
 - B. Early decline in social interpersonal conduct
 - C. Early impairment of personal conduct
 - D. Early emotional blunting
 - E. Early loss of insight
- II. Supportive diagnostic features of FTD
 - A. Behavioral disorder
 - B. Speech and language
 - C. Physical signs

Diagnostic features progressive non-fluent aphasia

- I. Core diagnostic features of PA
 - A. Insidious onset and gradual progression
 - B. Nonfluent spontaneous speech with: agrammatism, phonemic paraphasias, anomia
- II. Supportive diagnostic features of PA
 - A. Speech and language
 - 1. Stuttering or oral apraxia 2. Impaired repetition 3. Alexia, agraphia 4. Early preservation of word meaning, 5. Late mutism
 - B. Behavior
 - 1. Early preservation of social skills 2. Late behavioral changes similar to FTD
 - C. Physical signs: late contralateral primitive reflexes, akinesia, rigidity, and tremor

Diagnostic features of semantic aphasia and associative agnosia

- I. Core diagnostic features of SD
 - A. Insidious onset and gradual progression
 - B. Language Disorder and/or
 - C. Perceptual disorder
 - D. Preserved perceptual matching and drawing reproduction
 - E. Preserved single-word repetition
 - F. Preserved ability to read aloud and write to dictation orthographically regular words
- II. Supportive diagnostic features of semantic dementia
 - A. Speech and language
 - B. Behavior
 - C. Physical signs

FTD May Mimic AD

- Criteria are subjective and must be interpreted
- AD more prevalent than FTD, especially age >65
- Behavior disturbance also common in AD
- AD is sometimes asymmetric causing prominent aphasia
- Most patients with FTD eventually develop a significant memory disturbance
- Most patients with FTD also meet NINCDS-ADRDA criteria for AD (Varma et al. JNNP 1999;66:184-188)
- Clinicians depend upon relative severity of symptoms; none are pathognomonic