FRONTOTEMPORAL DEMENTIA (FTD)

A Summary Sheet of Information and Intervention Suggestions
With an Emphasis on Cognition

By Shelly E. Weaverdyck, PhD

AD refers to Alzheimer's Disease.

CHARACTERISTICS

Brain disorder
Most obvious symptoms: behavior and personality changes
Progression: increasing severity of symptoms over time (a progressive dementia)
Onset: insidious; age 40-65 usually, (average age about 60)
Duration: slightly longer than for AD
Cause unknown
Cure: no cure at this time, but there is treatment to reduce symptoms
Diagnosis supported by structural imaging (e.g., CT, MRI) or functional imaging (e.g., PET, SPECT) of person's brain before death
Fairly common cause of dementia (10-15% of all dementia cases)
About 140,000 – 350,000 people in United States have FTD
Only known risk factor is family history
May be hereditary in 38-60% of cases (chromosome 17, or less often chromosome 3)
Course: behavior and personality changes are first and most obvious symptoms throughout course. Course varies with individual. Slower course than AD, usually.
Name is based on location of neuropathology. A variety of diseases cause FTD.

NEUROPATHOLOGY

Varies with type/cause:
(e.g., Pick bodies are found in 20% of cases at autopsy)
Atrophy (i.e., loss) of brain tissue; cell death
No neuritic plaques
No neurofibrillary tangles
No Lewy bodies
No significant changes in Acetylcholine
No changes in EEG even in late stages

LOCATION OF CORTICAL BRAIN CHANGES

Cortical refers to the cortex (i.e., the outer layer) of the brain
Changes (pathological abnormalities) occur in the cortex and in internal (subcortical) structures of the brain
Changes (pathological abnormalities) occur on both sides of the brain

Cortical brain structures affected:
- Frontal lobe
- Temporal lobe (anterior)

COGNITIVE CHANGES

Preserved in early part of course:
- visual & auditory perception
- spatial perception
- orientation
- praxis
- memory
- time orientation

Preserved in later part of course:
- spatial orientation (e.g., don't get lost as often as do persons with AD)

Insight impaired early in the course

Impairment in speech: very obvious symptom; impaired in early part of course; increasingly impaired throughout course:
- Reduced spontaneity
- Fewer words used
- Repetition of limited variety of words, phrases, themes
- Clichés used; difficulty individualizing speech to situation
- Echolalia (person says words or phrases she/he just heard)
- Perseveration (person repeats an action or speech)
- Mutism (lack of speech) eventually, often
- Comprehension often less impaired than speech

Impaired earlier in the course than in AD, with increased impairment over time:
- Perseveration
- Mental rigidity and inflexibility
- Concentration impaired
- Distractibility
- Impulsivity
- Reasoning impaired
- Judgment impaired
- Abstract thinking impaired
- Lack of concern for accuracy
- Initiation impaired
- Sense of time impaired
- Ability to empathize with others impaired
- Ability to monitor self impaired
- Ability to adapt impaired

FRONTOTEMPORAL DEMENTIA (FTD)

Summary Sheet

Shelly E. Weaverdyck, PhD

EMOTIONAL CHANGES

- Depression
- Anxiety
- Excessive tearfulness
- Suicidal thoughts
- Delusions
- Hypochondriasis
- Bizarre somatic preoccupation (focus on own body)
- Emotional unconcern (indifference, remoteness, lack of empathy, apathy, blank facial expressions)
- Inappropriate emotional expressions:
  - Laugh instead of cry
  - Exaggerated expression
  - Switch quickly (lability)

BEHAVIORAL CHANGES

- Mood and behavior changes early in the course:
  - Personal awareness impaired (poor personal hygiene and grooming)
  - Social awareness impaired (lack of social tact, petty crimes)
  - Disinhibition (inappropriate sexual behavior, physical aggression, inappropriate laughter and joking, restless pacing)
  - Lethargy
  - Family and work ignored or get less attention
  - Incontinence
- Changes vary with individuals
  - Some quiet and withdrawn; Some disinhibited and disruptive
  - Some lethargic; Some hyperactive
- Repetitive behaviors (e.g., wandering, clapping, singing, dancing)
- Ritualistic behaviors (e.g., hoarding, cleaning)
- Fixations and obsessions
- Impulsivity
- Hyperorality (e.g., overeating, food cravings, excessive smoking , excessive alcohol consumption, putting objects in mouth)
- Exploring and handling objects in environment excessively or inappropriately
- Sleep increase in time and increased drowsiness
- Movement rigid in later part of course, sometimes

INTERVENTIONS: Non-medicinal

- Assess individual for abilities and functions (do not generalize FTD symptoms)
- Acknowledge that comprehension is usually better than expression of language:
  - Talk to person directly
  - Don’t talk about person in front of her/him
- Avoid giving unintended cues or information

Orient to time
Structure person's time with activities and events
Emphasize consistency; and predictability in:
- Schedule of events and daily routines (in time, duration, and order)
- Who is providing care (same caregiver each time)
- The way a task is done (e.g., order of task steps, same task objects)
- Where events and activities take place
- Environment (e.g., avoid changing rooms or furniture)
- Methods of communication

When communicating:
- Increase non verbal forms of communication
- Get and keep the person's attention
- Give time to start action
- Keep information and requests concrete
- Use few words, short words and phrases
- Use most important words first
- Use music, singing, rhythm to help person move and to shift attention
- Be clear and respectful with requests; minimize emotional energy and content of request

Use speech therapy that relies on intact parietal lobe functions rather than impaired frontal lobe functions (e.g;, use nonverbal stimuli and methods of communications, music, rhythm, fewer lengthy explanations or questions)
- shift from one thought or activity to another slowly; give time

Address social behaviors of person:
- distress of caregiver regarding behaviors (embarrassment, concern)
- impact on children and coworkers
- community awareness, support, law enforcement

Support family and caregiver
- Address anger
- Educate/remind caregiver FTD is a brain disorder
- Prepare for employment and financial implications
- Prepare for future care

Tell caregiver and family:
- Explain course of FTD
- Expectations must match individual abilities
- Comprehension is usually less impaired than speech
- Be predictable: minimize change, do the things the same way each time

MEDICAL TREATMENTS

Cure unknown
Increase serotonin for repetitive and obsessive behaviors
Cholinesterase inhibitors do not help, since Acetylcholine is not reduced

FRONTOTEMPORAL DEMENTIA (FTD)

Summary Sheet

COMMENTS

In 1994 consensus criteria for clinical and pathologic diagnosis first created and have since been updated.

Pick bodies were first described in a patient by Arnold Pick in 1906.

Often misdiagnosed as AD

May be associated with Lou Gehrig's Disease (Amyotrophic Lateral Sclerosis)

RESOURCES

http://www.ninds.nih.gov/disorders/picks/picks.htm (National Institute of Neurological Disorders and Stroke NINDS)

http://www.FTD-Picks.org (Association for Frontotemporal Dementias (AFTD)

http://www.alzheimers.org (Alzheimer's Disease Education and Referral Center ADEAR)

http://www.alz.org (Alzheimer's Association)

http://www.med.umich.edu/madrc/ (Michigan Alzheimer's Disease Research Center MADRC)

Radin, L & Radin G (Eds) What if it's Not Alzheimer's? Prometheus Books, Amherst, New York 2003 (More info: phone 716-691-0133, ext. 207).

This document is in preparation for publication.
Please send questions and comments to
Shelly E. Weaverdyck, PhD. at sweaverd@umich.edu

Originally produced as part of the in-kind funding for the Michigan Alzheimer's Demonstration Project.
Funded by the Public Health Service, Health Resources and Services Administration (1992-1998)
and the Administration on Aging (1998-2001) 55% federal funding and 45% in-kind match.