NEUROFIBRILLARY TANGLES IN MILD AD

THIS TYPICAL PATTERN IS SEEN IN 95% OF AD PATHOLOGY
THE RESULTANT AMNESTIC DEMENTIA IS ALSO KNOWN AS THE DEMENTIA OF THE ALZHEIMER-TYPE (DAT)
FRONTOTEMPORAL LOBAR DEGENERATIONS (FTLD)

FOCAL NEURONAL LOSS WITH GLIOSIS \rightarrow (REGIONAL ATROPHY)

FTLD-TAU
MAP-TAU
CHR 17

FTLD-TDP
PGRN
CHR 17
IN CONTAST TO DEMENTIAS OF THE ALZHEIMER TYPE, MEMORY IS USUALLY PRESERVED.
SYNDROME OF PRIMARY PROGRESSIVE APHASIA (PPA)

a) Impaired usage or comprehension of words (i.e., aphasia)

b) The language disorder represents the principal deficit during the initial stages of the disease (i.e., primary)

c) The cause is a neurodegenerative disease (i.e., progressive)
First Year After Onset

Perisylvian Cortex

Three Years Later
73 yr Old Man With PPA
Longitudinal Neuropsychological Investigations in a PPA Patient Tested 6 and 9 years After Onset (M.K.)

Weintraub, Rubin & Mesulam, Archives of Neurology 1990.
Density of Abnormal TDP-43 Deposits
(Gliebus, Bigio, Caplan, Weintraub, Mesulam, Geula, Neurology, 2010)
FREQUENCY OF LEARNING DISABILITY IN 699 SUBJECTS

AGRAMMATIC
(PPA-G)
- low fluency of word output
- distorted syntax
- good comprehension

SEMANTIC
(PPA-S)
- high but aberrant fluency
- poor comprehension
- severe anomia

LOGOPENIC
(PPA-L)
- variable fluency
- word-finding hesitations
- disrupted repetition
- good comprehension

MOSTLY
FTLD-TAU
(≈20% AD)

MOSTLY
FTLD-TDP
(≈20% AD)

MOSTLY
AD
(≈40% FTLD)

(Mesulam, Wieneke, Rogalski, Cobia, Thompson, Weintraub- Arch Neurol, 2009)
HOW TO TELL IF PPA IS CAUSED BY FTLD OR AD?

• APOLIPOPROTEIN E – not useful
• F18-2DG PET METABOLISM – not useful
• CSF TAU AND AMYLOID - promising
• PET AMYLOID IMAGING – most informative if negative
TREATMENT IN PPA?

- Bromocriptine - no
- Memantine - no
- Anticholinesterases – maybe in PPA-L
- Lithium for PPA-G?
- Intraspinal ethanercept, omental transplant, steroids
- Speech therapy - initially yes
- SSRI for depression
- Psychosocial interventions
- Promote neural plasticity?
Welcome to the
International PPA Connection
This site offers resources and support for patients and family members. It also provides a central location to support and disseminate international collaborative research on PPA, helping clinicians and researchers to better help patients.

What is PPA?
PPA (Primary Progressive Aphasia) is a clinical syndrome that is diagnosed when the following features are present:

» A disorder of spoken or written language (i.e., aphasia)
» The aphasia is caused by a degenerative brain disease (i.e., progressive)
» The aphasia is initially the most salient feature and the chief cause of daily living limitations (i.e., primary)

Frequently Asked Questions about PPA
Detailed Diagnostic Criteria for PPA

88 investigators from 21 countries have registered 260 patients
THE ANATOMY OF THREE DEMENTIAS

• THE CLINICAL PICTURE IS DETERMINED BY ANATOMY.
• ACCURATE CLINICAL DIAGNOSIS HELPS TO PREDICT PROBABLE NEUROPATHOLOGY.
• KNOWING THE NEUROPATHOLOGY IS ESSENTIAL FOR RATIONAL TREATMENT.