

Introduction and Process

Norman L. Foster, MD

7BS.006
**IMPROVING ACCURACY OF DEMENTIA DIAGNOSIS:
CASE STUDIES WITH NEUROPATHOLOGY**

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Breakfast Seminar

Introduction and Process

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No conflicts to disclose

Overview

- An interactive discussion of clinical cases with FDG-PET scans and autopsy diagnosis of Alzheimer's disease (AD) or frontotemporal dementia (FTD)
- Briefly review FDG-PET and its interpretation in dementia
- Briefly review the clinical criteria for AD and FTD
- Briefly review the histopathology of AD and FTD
- Cases will be presented to stimulate discussion
- We will ask the audience to vote on diagnosis

Objectives

- CMS recently approved the use of FDG-PET in the evaluation of dementia to distinguish AD from FTD
- Neurologists need to better understand when and how to utilize this new technology
- Improve accuracy and confidence in clinical diagnosis of dementing illnesses
- Learn when and how to use molecular imaging in dementia evaluations
- Better apply diagnostic criteria for dementing disorders in individual situations

Why FTD and AD?

- AD and FTD are common causes of dementia
 - AD is the most common cause of dementia in the elderly in the US
 - FTD is much less prevalent, but still the second most common neurodegenerative cause early-onset dementia
- Neither has characteristic physical findings that aid the diagnosis of other dementias
- Clinically difficult to distinguish
- FDG-PET can help this clinical decision and is CMS approved

FTD May Mimic AD

- Behavior disturbance is common in AD
- Language is affected early in AD
- AD is sometimes asymmetric causing prominent aphasia
- Most FTD patients develop a significant memory disturbance
- Most FTD patients 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

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Clinical Summaries

- Collected all available medical records
- Removed personal identifiers, imaging results, and autopsy reports
- Several page clinical narrative from these records summarizing the patient's entire clinical course
- Developed by a dementia expert unaware of diagnosis who did not serve as a rater

How We Will Consider Cases

- Review scenario and rate, then we will discuss
- Review with FDG-PET and rate, then discuss with interpretation of FDG-PET
- Present neuropathological findings
- Diagnosis - AD or FTD
 - Must decide one or the other
- Degree of Confidence
 - Very confident
 - Somewhat confident
 - Uncertain

How to Rate Cases

- Diagnosis - AD or FTD
 - Must decide one or the other
- Degree of Confidence
 - Very confident
 - Somewhat confident
 - Uncertain

Rating Card Example

1. What is your best diagnosis after reviewing? (select only one)
- 1) AD
- 2) FTD
2. What is your confidence in this diagnosis? (select only one)
- 1) Very confident
- 2) Somewhat confident
- 3) Uncertain

Scenario # _____

Scenario only

Scenario and PET