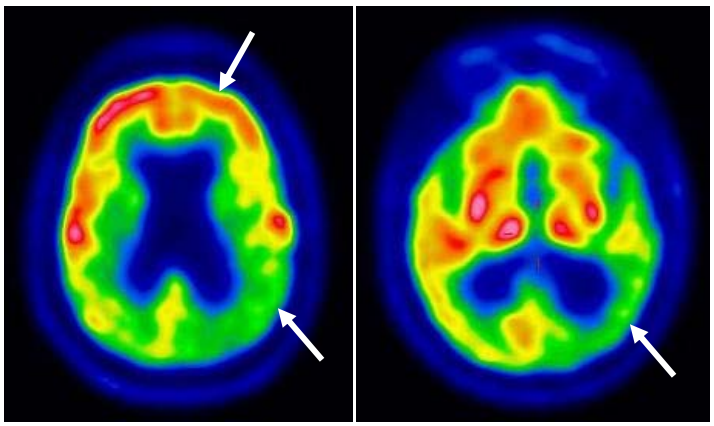
Trident PET of Gwinnett

The Stage

February 2005

Case of the Month

Alzheimer's Disease



PATIENT HISTORY

➢68 y/o female with history of memory loss, dementia, depression, mood swings, inconsistent eating patterns, and hyperlipidemia – all for more than two yrs. Pt is being treated with cholinesterase inhibitor, Namenda, Xanax, B-12 IM, and cholesterol lowering medication. PET ordered to r/o depression or multi-infarct dementia vs AD.

Brain PET/CT FINDINGS

➢Images demonstrate decreased FDG uptake in the temporal and parietal lobes – left more than the right side. Slight decrease in FDG uptake in frontal lobe as well, which is typically present in advanced AD. Occipital and motor cortical uptake normal. Sub cortical and cerebellar uptake also normal.

IMPRESSION

➢Findings consistent with Alzheimer's Disease dementia.

DISCUSSION

➢This case illustrates the ability of FDG PET to differentiate AD from other forms of dementia or depression. Considering the patient's ongoing symptoms, and multiple medications prescribed, a differential diagnosis proved helpful in determining appropriate course of therapy and minimizing unnecessary costs.

Reviewed and reported by **R. K. Halkar, MD**

Featured Indication:

Alzheimer's Disease

The utilization of PET imaging for assessment of dementia is well documented. In this issue we also show the potential for PET/CT to help differentiate Alzheimer's dementia (AD) from other forms of dementia or depression.

In a recently published paper from Silverman, et al, the authors showed that FDG-PET is 93% sensitive for detecting early AD vs 83% for conventional clinical assessment by multiple tests[1]. As a result the authors stated PET can help avoid repetitive, costly assessments performed over years. In addition, the authors found that PET accurately predicts AD in 93% of patients later diagnosed with progressive dementia[1].

Additionally, recent data has shown the value of PET in comparison to assessment with cognitive standardized testing. Rao, et al, showed that patients with normal MMSE tests showed pronounced defects on PET, indicating that PET is more sensitive than the cognitive testing for assessing early AD dementia[2].

Truong, et all, also showed PET's ability to provide prognostic information regarding AD. The authors showed that PET accurately predicted, with a sensitivity of 91%, which patients would have a subsequent progressive course of disease[3].

1. Silverman, D., et al, *JAMA*, 2001;286:2120-2127.
2. Rao, A., et al, RSNA, 2004.
3. Truong, et al, *Jour Nuc Med*; 43(suppl):62P.

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"A More Complete Picture"

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Quality Company

Trident PET of Fayette, Gwinnett and Savannah recently became **the ONLY PET or PET/CT imaging centers in Georgia to be accredited by the American College of Radiology.** The ACR accreditation ensures you that Trident's services meet the very highest standards of quality, accuracy, appropriateness, and effectiveness.

To Order a PET/CT Scan:

Call: 770-513-2499
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infogwinnett@tridentpet.com

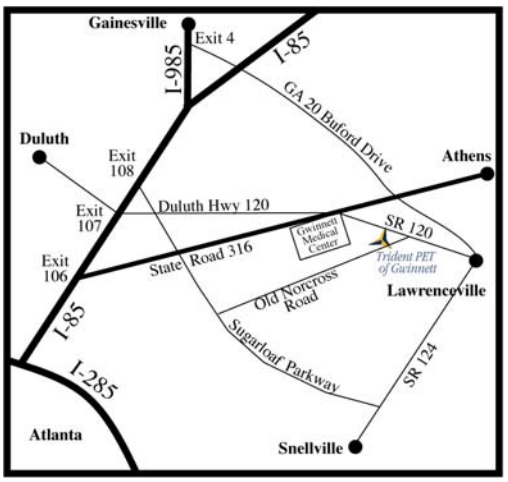
Trident PET of Gwinnett
545 Old Norcross Rd., Suite 200
Lawrenceville, GA 30045

CMS Announces Coverage of PET/CT Scans for Alzheimer's Disease

NEW

Medicare patients meeting the following criteria for assessment of dementia will be covered

- Patient has documented cognitive decline of at least six months
- Patient has a recently established diagnosis of dementia and meets diagnostic criteria for both Alzheimer's disease and fronto-temporal dementia
- Patient has been evaluated for specific alternate neurodegenerative diseases or causative factors, and for whom the cause of the clinical symptoms remains uncertain
- Patient has had recent MRI or CT and definitive diagnosis is still in question
- Patient is **NOT** being referred for assessment of mild cognitive impairment or "early dementia"



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