

Case 17-1 Clinical Diagnosis: Alzheimer's Disease

CONTRIBUTORS AND INSTITUTION

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IMAGING DATA

Consolidated Imaging
Case: 17-1 (17-170) Date: 10-1-13
Technician: 17-1 (17-170)

Collaborative Patient Info

Date: 10-1-13

HISTORY

This 65-year-old woman had a clinical history of Alzheimer's disease.

IMAGE FINDINGS

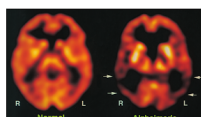
¹⁸F-Fluorodeoxyglucose PET

Two ¹⁸F-Fluorodeoxyglucose PET scans are shown (Case Fig. 17-1). One is of a normal 40-year-old woman, whose scan shows uniform brain metabolism throughout the cortex, with slight "hypometabolism" in the basal ganglia—only a difference of low perfusion to white matter. The image labeled "Alzheimer's" is that of a 65-year-old woman with a clinical diagnosis of Alzheimer's disease. Her ¹⁸F-Fluorodeoxyglucose PET scan is characterized by globally decreased perfusion throughout the cortex relative to the normal. The most pronounced area of decreased perfusion is in the posterior temporal

parietal region (arrows) with relative sparing of the basal ganglia, hippocampal cortex, and cerebellum. These findings are characteristic of the cerebral perfusion deficit pattern reported for Alzheimer's disease.

TEACHING POINTS

Alzheimer's disease, especially in patients with very characteristic perfusion patterns, can be diagnosed accurately. This observation is important when considering the use of PET in the diagnosis of Alzheimer's disease. The entire book has been thoroughly revised to reflect an appropriate balance between PET and PET applications highlights of this edition include a new chapter on neuroreceptor imaging and kinetic modeling a new chapter on brain imaging in movement disorders and significant updates on PET radiopharmaceuticals



CASE FIGURE 17-1

Functional Cerebral SPECT And PET Imaging

Author : Ronald L Van Heertum Ronald S Tikofsky Masanori Ichise / **Category :** Medical / **Total Pages :** 480 pages

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