

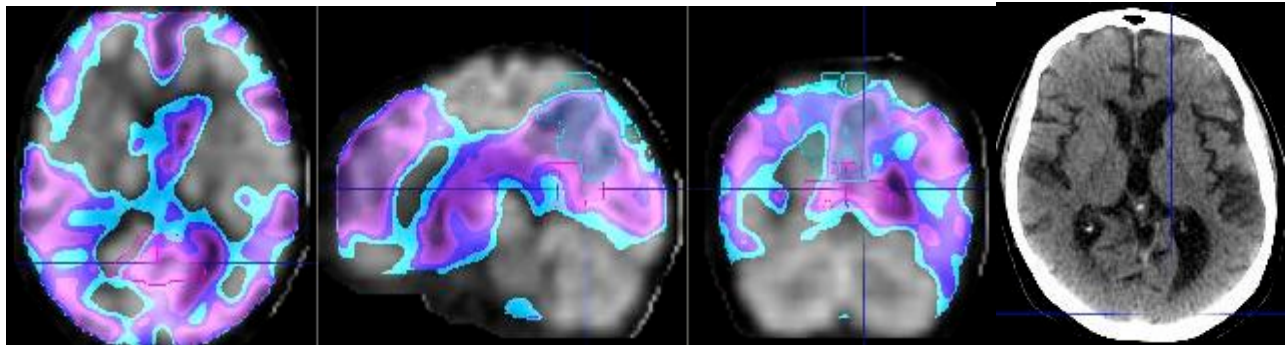
EXAM: PET/CT IMAGING FOR ALZHEIMER'S EVALUATION

HISTORY: 87-year-old lady presents with progressive memory loss and behavioral change involving attention span, inappropriate behavior and agitation. Recent MMSE reveals score of 16/30 consistent with moderate cognitive impairment.

TECHNIQUE: Dedicated PET CT imaging was obtained of the brain following injection of 15.1 mCi of FDG with a blood glucose level of 122. Images were reformatted in three orthogonal planes and quantitatively evaluated compared with the normal brain database.

FINDINGS

BRAIN: Metabolic FDG images were coregistered with axial CT. There is severely reduced temporal cortical metabolic activity, right lobe more so than left. There is severe involvement of the parahippocampal gyrus in region of the hippocampus. Remainder of temporal lobe is nearly as severely involved. There is also markedly reduced activity in the parietal cortex severely involving the posterior cingulate gyrus and to a lesser degree, precuneus. Frontal lobe cortex bilaterally is also moderately severely involved. There is relative sparing of the occipital cortex which generally excludes DLB from consideration. There is normal, intense physiologic activity in the basal ganglia but to a somewhat lesser degree in the thalamus bilaterally.



On fused CT, there is generalized atrophy with increased cortical sulcal prominence, again, most pronounced in the temporal and parietal region with ex-vacuo enlargement of the ventricles. No specific evidence of recent or remote lacunar infarct or abnormal extraaxial fluid collection.

CONCLUSION:

1. Advanced cerebral atrophy most prominently involving temporal and parietal lobes.
2. Severe cortical metabolic defect in pattern most characteristic of Alzheimer's dementia.

Contact our Imaging Specialists at 888.671.1076 with any questions or comments about this report.