

**Supplementary data**  
**PATHOLOGY AND CLINICAL DATA FROM**  
**NARCOLEPSY PATIENTS**

SUBJECT	AGE	SEX	Narcolepsy Onset	Cataplexy	Neuropathology	Clinical records
<b>Narcolepsy patients with Alzheimer's Disease</b>						
A09-109	75	M	46	yes	Extensive plaques and NFT's in hippocampus and frontal and temporal cortex, some granular degeneration, Braak stage 5/6	Severe progressive dementia over 8 years, MRI showed moderate diffuse cortical atrophy, and SPECT scan revealed hypoperfusion of the temporal and parietal lobes.
HSB 3443	94	F	21	yes	Amyloid plaques in hippocampus and temporal neocortex	Short- and long-term memory problems.
HSB 4763	79	M	21	yes	Significant Alzheimer's pathology in frontal, temporal and parietal cortex. Neuritic plaques and amyloid arteriolar vascular deposition with moderate numbers of intraneuronal fibrillary inclusions.	Diagnosed with Alzheimer's disease and treated with Aricept
N2	75	M	12	Yes	Mild atrophy, many NFTs in cortex (Braak V), senile plaques in precentral gyrus (Braak C, CERAD C), Definite AD (CERAD NP, possible b)	Confused and agitated. Also had mild obstructive sleep apnea
<b>Narcolepsy patients without Alzheimer's Disease</b>						
4783	91	F	14	yes	Slight anterior frontal atrophy, mild graying of white matter, disseminated intravascular coagulation, microinfarcts, edema in white matter and striatum. Perineuronal spaces indicative of hypoxia. Sevier-Munger staining shows a few NFT's in lateral frontal cortex with no plaques.	Clinically diagnosed with probable Alzheimer's disease and treated with Exelon and then Aricept. No worsening of mild confusion over 6 years. Neuropathology more consistent with multi-infarct dementia.
N4	79	F	10	Yes	Marked frontal and temporal atrophy, massive NFT's and neuropil threads in subiculum and entorhinal cortex and some in neocortex, senile plaques in hippocampus but not other cortical regions. Diagnosed as "senile dementia of the NFT type" also known as "tangle only dementia"	5 years of poor memory, increasing delirium, incontinence, severe dementia
HSB 4685	90	F	unknown	yes	Early Alzheimer's pathology plaques in frontal cortex and hippocampus, granular dendritic bodies in cerebellar grey matter, cerebral cortex and medulla. No Lewy bodies found.	No indication of Alzheimer's disease or cognitive impairment.
HSB 4765	88	F	13	yes	Minimal Alzheimer's pathology, plaques and NFT's in frontal cortex . Rare diffuse plaques in frontal cortex, with rare NFT's in small neurons.	No indication of Alzheimer's disease.
N1	69	M	15	Yes	Small numbers of NFT's in hippocampus (Braak 1), senile plaques in temporal cortex (Braak A, CERAD B), [NTF's normal for age, some lymphocytes secondary to TBI	History of multiple traumatic brain injuries, episodes of delirium
N3	89	F	20's	Yes	Tau positive NFTs, many neuropil threads (Braak V), moderate plaques in neocortex (CERAD B). Also abundant Lewy neurites and Lewy bodies in neocortex, Probable Lewy body dementia	no information
HSB4192	95	M	13	yes	No Alzheimer's pathology, diffuse white matter attenuation in inferior temporal lobe and internal capsule.	No indication of Alzheimer's disease or cognitive impairment.
HSB 4910	90	M	18	yes	No Alzheimer's pathology	No indication of Alzheimer's disease.

Abbreviation: NFT's, neurofibrillary tangles