Supplementary Data

Alzheimer and Vascular Neuropathological Changes Associated with Different Cognitive States in a Non-Demented Sample

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Supplementary Table 1
Sensitivity analysis restricting the interval between last MMSE score at death at 1.5 years. The table shows the distribution of pathology (mild/moderate/severe) across cognitive groups and associations (OR and 95%CI) between pathology and cognitive state at death

| | % Pathological Profile+ | | | Logistic Regression* | | | |
| | None | Mild | Moderate | Non vs. Mild | | Non vs. Mod | |
				OR	95%CI	OR	95%CI
Maximum Score Neuritic Plaques							
Neocortex	47.7	49.1	57.1	0.7	(0.3–1.7)	0.8	(0.3–2.2)
Entorhinal cortex and hippocampus	31.8	43.6	74.3	1.1	(0.4–2.8)	3.6	**(1.2–10.7)**
Maximum Score Neurofibrillary Tangles							
Neocortex	27.9	30.9	52.9	1.2	(0.4–3.2)	1.9	(0.7–5.6)
Entorhinal cortex and hippocampus	81.8	81.8	100.0	0.1	(0.0–1.0)		Omitted
Atrophy							
Hippocampus	20.5	22.9	44.1	1.2	(0.4–3.8)	3.4	(1.1–10.7)
Cortical	32.6	34.0	61.8	1.1	(0.4–3.0)	3.6	(1.2–10.6)
White Matter Changes							
Periventricular lesions	85.0	88.7	96.4	1.9	(0.5–7.9)	6.2	**(0.6–64.2)**
Deep Subcortical Lesions	52.4	56.4	68.8	1.1	(0.4–2.9)	1.7	**(0.6–5.1)**
Vascular							
Small vessel disease	42.9	60.4	67.7	2.6	(1.0–6.7)	3.4	**(1.2–9.9)**
Infarcts	11.9	20.4	31.3	1.8	(0.5–6.4)	3.5	(0.9–13.6)
Lacunes	7.3	18.5	25.0	4.9	(1.0–24.6)	7.4	(1.4–40.7)
Haemorrhage	7.1	1.9	3.2	0.2	(0.0–2.6)	0.4	(0–48.0)

Mild = mild impairment; Mod = moderate impairment; Non = non-impaired; OR = odds ratio; 95%CI, 95% confidence interval; +Percent of individuals with mild, moderate or serve pathology ratings; *Adjusted for age, education and time between last MMSE score and death.

Supplementary Table 2
Stains used across CFAS centres

CFAS Center	Plaques (amyloid)	NFT	Combined plaques and NFT
Cambridge	Congo Red (1993–1999)	Tau 11/57 antibody (1993–1999)	
	Landon IG10/2/3 antibody (1993–1999)	Tau antibody (Dako 1999–2005)	
	Beta amyloid antibody(Dako) (1999–2011)	Tau (AT8 clone) (2005–2011)	
Gwynedd	Beta amyloid (1998–2011)	Tau (AT8) (1998–2011)	Gallyas (1998–2011)
Liverpool	Congo Red (1991–2003)	Tau antibody (1996–2003)	Bielschowsky (1991–1996)
	Beta amyloid antibody (2003–2011)	Tau (AT8) antibody (2003–2011)	
Newcastle	Beta amyloid (1998–2011)	Tau (AT8) antibody (1999–2011)	Palmgren (1991–1998)
			Methanamine silver (1991–1998)
Nottingham	Congo Red (1991–2011)	Tau antibody (Dako) (1991–2011)	Garvey silver stain(1991–2011)
Oxford	Congo red (1993–2011)	Tau (AT8) antibody (2001–2011)	Methanamine silver (1993–2011
			Bielschowsky (1993–2011)

Tau antibody: unsure of source in each center but most likely will be Dako that labels phosphorylated and non phosphorylated tau; Tau (AT8 clone) labels hyperphosphorylated tau (from Chemicon, which has now been taken over by Millipore); Landon and 11/57 were non-commercial antibodies made in Cambridge; Amyloid-β, also known as BA4, is made by Dako clone 6F/3D.