

# **SUPPLEMENTAL MATERIAL**

**Table S1. Odds ratios (95% confidence intervals) of vascular dementia by quintiles or per 1-SD increment: the Atherosclerosis Risk in Communities (ARIC) study, 1990–2013.**

		cIMT quintiles (mm)					cIMT continuous per 1 SD (0.15)
		< 0.58	0.58 – 0.64	0.65 – <0.71	0.71 – <0.80	> 0.80	
Vascular dementia, n	13	22	24	29	50		138
N at risk	1,163	1,164	1,164	1,164	1,164		5,819
OR (95% CI)							
Model 1	1 (ref)	1.38 (0.69, 2.79)	1.32 (0.66, 2.64)	1.44 (0.73, 2.83)	2.16 (1.13, 4.12)		1.21 (1.04, 1.41)
Model 2	1 (ref)	1.29 (0.63, 2.60)	1.25 (0.72, 2.50)	1.30 (0.66, 2.58)	1.84 (0.95, 3.55)		1.17 (0.99, 1.37)
Model 3	1 (ref)	1.30 (0.64, 2.64)	1.22 (0.61, 2.45)	1.28 (0.65, 2.55)	1.78 (0.92, 3.45)		1.15 (0.98, 1.35)
		IAD quintiles (mm)					IAD continuous per 1 SD (0.83)
		< 6.77	6.77 – 7.18	7.19 – 7.57	7.58 – 8.10	> 8.11	
Vascular dementia, n	23	15	26	22	46		132
N at risk	1,125	1,104	1,113	1,110	1,120		5,572
OR (95% CI)							
Model 1	1 (ref)	0.61 (0.32, 1.20)	0.92 (0.51, 1.67)	0.70 (0.37, 1.32)	1.32 (0.74, 2.33)		1.17 (0.98, 1.40)
Model 2	1 (ref)	0.59 (0.30, 1.16)	0.82 (0.45, 1.48)	0.60 (0.31, 1.13)	0.95 (0.52, 1.74)		1.04 (0.86, 1.27)
Model 3	1 (ref)	0.60 (0.31, 1.17)	0.83 (0.46, 1.51)	0.59 (0.31, 1.12)	0.94 (0.51, 1.73)		1.04 (0.85, 1.26)
		DC quintiles ( $10^{-3}$ /kPa)					DC continuous per 1 SD (6.97)
		< 12.21	12.22 – 15.48	15.49 – 18.66	18.67 – 23.25	> 23.28	
Vascular dementia, n	41	26	16	10	9		102
N at risk	908	910	906	909	910		4,543
OR (95% CI)							
Model 1	1 (ref)	0.86 (0.51, 1.44)	0.66 (0.36, 1.22)	0.46 (0.22, 0.95)	0.53 (0.25, 1.14)		0.75 (0.57, 0.97)
Model 2	1 (ref)	0.95 (0.56, 1.62)	0.83 (0.44, 1.56)	0.58 (0.27, 1.24)	0.73 (0.32, 1.65)		0.87 (0.65, 1.15)
Model 3	1 (ref)	0.94 (0.55, 1.60)	0.83 (0.44, 1.57)	0.59 (0.28, 1.26)	0.74 (0.33, 1.68)		0.87 (0.66, 1.16)

Model 1: adjusted for age, sex, race/center, education, APOE ε4.

Model 2: adjusted for model 1 plus body mass index, systolic blood pressure, smoking status, pack-years of smoking.

Model 3: adjusted for model 2 plus antihypertensive medications, diabetes status.

Abbreviations: OR = odds ratio; SD = standard deviation; cIMT = carotid intima-media thickness; IAD = interadventitial diameter; DC = distensibility coefficient

**Table S2. Odds ratios (95% confidence intervals) of Alzheimer's disease-related dementia by quintiles or per 1-SD increment: the Atherosclerosis Risk in Communities (ARIC) study, 1990–2013.**

	cIMT quintiles (mm)					cIMT continuous per 1 SD (0.15)
	< 0.58	0.58 – 0.64	0.65 – <0.71	0.71 – <0.80	> 0.80	
AD-related dementia, n	11	17	23	21	31	103
N at risk	1,163	1,164	1,164	1,164	1,164	5,819
OR (95% CI)						
Model 1	1 (ref)	1.28 (0.59, 2.79)	1.53 (0.73, 3.22)	1.27 (0.59, 2.71)	1.50 (0.72, 3.12)	1.12 (0.94, 1.35)
Model 2	1 (ref)	1.25 (0.57, 2.72)	1.50 (0.72, 3.15)	1.22 (0.57, 2.62)	1.41 (0.67, 2.97)	1.11 (0.92, 1.34)
Model 3	1 (ref)	1.26 (0.58, 2.75)	1.50 (0.71, 3.14)	1.22 (0.57, 2.63)	1.40 (0.67, 2.96)	1.10 (0.91, 1.33)
IAD quintiles (mm)						
	< 6.77					IAD continuous per 1 SD (0.83)
	16	10	21	28	19	
AD-related dementia, n						94
N at risk	1,125	1,104	1,113	1,110	1,120	5,572
OR (95% CI)						
Model 1	1 (ref)	0.60 (0.27, 1.35)	1.10 (0.56, 2.17)	1.28 (0.66, 2.49)	0.70 (0.34, 1.47)	0.97 (0.78, 1.21)
Model 2	1 (ref)	0.58 (0.26, 1.31)	1.05 (0.53, 2.08)	1.19 (0.60, 2.35)	0.60 (0.27, 1.30)	0.92 (0.73, 1.17)
Model 3	1 (ref)	0.59 (0.26, 1.32)	1.06 (0.53, 2.11)	1.21 (0.61, 2.39)	0.61 (0.28, 1.32)	0.92 (0.73, 1.17)
DC quintiles ( $10^{-3}$ /kPa)						
	< 12.21					DC continuous per 1 SD (6.97)
	31	13	12	10	8	
AD-related dementia, n						74
N at risk	908	910	906	909	910	4,543
OR (95% CI)						
Model 1	1 (ref)	0.51 (0.26, 1.00)	0.57 (0.28, 1.15)	0.51 (0.24, 1.08)	0.49 (0.21, 1.11)	0.86 (0.64, 1.14)
Model 2	1 (ref)	0.52 (0.26, 1.02)	0.58 (0.28, 1.19)	0.52 (0.24, 1.14)	0.50 (0.20, 1.20)	0.89 (0.65, 1.21)
Model 3	1 (ref)	0.51 (0.26, 1.00)	0.57 (0.28, 1.18)	0.52 (0.24, 1.14)	0.50 (0.20, 1.21)	0.89 (0.65, 1.21)

Model 1: adjusted for age, sex, race/center, education, APOE ε4.

Model 2: adjusted for model 1 plus body mass index, systolic blood pressure, smoking status, pack-years of smoking.

Model 3: adjusted for model 2 plus antihypertensive medications, diabetes status.

Abbreviations: AD = Alzheimer's disease; OR = odds ratio; SD = standard deviation; cIMT = carotid intima-media thickness; IAD = interadventitial diameter; DC = distensibility coefficient