

## SUPPLEMENTAL MATERIAL

**Supplemental Table I.** Characteristics of MRI Sub-study participants included and not included in analysis

	Included (N=1,170)	Not Included (N=120)	P-value
Age, mean $\pm$ SD	70.3 $\pm$ 8.9	73.5 $\pm$ 9.0	0.0002
Male, n (%)	469 (40.1)	41 (34.2)	0.21
Race-ethnicity, n (%)			0.17
White	170 (14.5)	21 (17.5)	
Black	196 (16.8)	27 (22.5)	
Hispanic	779 (66.6)	68 (56.7)	
Other	25 (2.1)	4 (3.3)	
Smoking, n (%)			0.23
Never	561 (47.9)	49 (40.8)	
Former	504 (43.1)	56 (46.7)	
Current	105 (9.0)	15 (12.5)	
Hypertension, n (%)	842 (72.0)	94 (78.3)	0.14
Diabetes, n (%)	269 (23.0)	23 (19.2)	0.34
Hypercholesterolemia, n (%)	459 (39.2)	47 (39.2)	0.99
BMI, mean $\pm$ SD	28.5 $\pm$ 5	28.2 $\pm$ 5.4	0.50
eGFR, mean $\pm$ SD	77.4 $\pm$ 20.3	75 $\pm$ 20.9	0.35
FGF23, mean $\pm$ SD*	88.8 $\pm$ 119.2	72.4 $\pm$ 49.5	0.55
PO4, mean $\pm$ SD	3 $\pm$ 0.5	2.9 $\pm$ 0.6	0.66
PTH, mean $\pm$ SD*	56.9 $\pm$ 26.3	43.7 $\pm$ 11.4	0.09

\* t test was based on unadjusted log-transformed data

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**Supplemental Table II. Sensitivity Analyses**

	FGF23 level	Model 3a		Model 3b	
		Beta (95% CI)	P	Beta (95% CI)	P
WHMV, 1/TCV%*	per lnFGF23	0.14 (0.05, 0.23)	0.003	0.14 (0.05, 0.23)	0.002
		p for trend =0.04		p for trend =0.02	
		OR (95% CI)	P	OR (95% CI)	P
SBI	per lnFGF23	1.22 (0.89, 1.66)	0.23	1.22 (0.90, 1.67)	0.20
		p for trend = 0.14		p for trend =0.12	

\* log-transformed

WMHV=white matter hyperintensity volume; SBI=MRI-defined subclinical infarction

Model 3a: adjusted covariates in model 3 plus PTH and PO4

Model 3b: adjusted covariates in model 3, excluding subjects with Ca>10.3 mg/dL and PTH>65 pg/ml (n=9)