SUPPLEMENTARY APPENDIX

Fibroblast growth factor 23 and incident chronic kidney disease in type 2 diabetes

RUNNING TITLE: FGF23 and incident CKD in type 2 diabetes

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Supplementary Table 1. Baseline characteristics of all 1110 analyzed participants according to quartiles of FGF23

Fibroblast growth factor 23, pg/ml	All Participants N = 1110	Quartile 1 N = 241 <31.9	Quartile 2 N = 261 31.9 – 39.9	Quartile 3 N = 286 40.0 – 50.2	Quartile 4 N = 322 ≥ 50.3
Age, years	62.4 ± 6.4	62.1 ± 5.9	62.0 ± 6.8	62.4 ± 6.3	62.9 ± 6.5
Female (%)	50.0	47.3	41.4	48.6	60.3
Black (%)	16.5	19.9	16.1	16.1	14.6
Hispanic (%)	4.9	6.6	8.1	3.15	2.5
Hypertension (%)	91.0	88.4	88.9	94.1	91.9
History of stroke (%)	5.2	7.1	5.0	4.2	5.0
History of myocardial infarction (%)	14.2	14.5	15.3	16.8	10.9
History of heart failure (%)	5.6	7.1	6.3	6.0	3.4
Current smoking (%)	10.1	10.0	13.4	11.2	6.5
Body mass index, kg/m^2	32.7 ± 5.5	32.1 ± 5.6	32.1 ± 5.6	32.6 ± 5.3	33.6 ± 5.6
Systolic blood pressure, mm Hg	135.4 ± 16.8	135.6 ± 17.1	135.2 ± 16.4	135.4 ± 16.9	135.4 ± 16.7
Diabetes duration, years	10 (5 – 14)	8 (5 – 12)	10 (5 – 16)	10 (5 – 14)	10 (6 – 14)
Medication use (%)					
Aspirin	56.2	56.0	54.8	59.4	54.7
Beta blockers	28.1	25.7	26.8	30.8	28.6
Statins	63.2	56.9	68.2	65.0	62.4
Angiotensin-converting enzyme inhibitors	49.7	50.6	49.0	52.8	46.9
Angiotensin receptor blockers	18.4	15.8	14.2	20.6	21.7
Insulin	35.3	30.3	36.0	35.0	38.8
Thiazolidinediones	20.5	17.4	18.0	23.1	22.7
Sulfonylureas	51.9	53.5	50.6	51.8	51.9
Laboratory Results					
Hemoglobin A1C, %	8.2 ± 1.0	8.3 ± 1.1	8.2 ± 1.0	8.2 ± 0.9	8.2 ± 0.9
Creatinine, mg/dl	0.88 ± 0.17	0.86 ± 0.19	0.89 ± 0.18	0.88 ± 0.17	0.88 ± 0.16
eGFR, ml/min/1.73m^2	86.4 ± 19.4	91.1 ± 27.2	87.5 ± 17.5	85.7 ± 16.6	82.8 ± 15.1
Urine albumin/creatinine ratio, mg/g	8.8 (5.7 –14.6)	9.2 (6.3 –14.7)	8.2 (5.4 –14.1)	8.7 (5.6 –14.2)	8.6 (5.5 –15.8)
Phosphate, mg/dl	3.5 ± 0.5	3.3 ± 0.5	3.4 ± 0.5	3.5 ± 0.5	3.7 ± 0.5

The FGF23 quartiles are defined based on the distribution of FGF23 in the random subcohort.

Abbreviations: eGFR, estimated glomerular filtration rate.

Values are %, means ± standard deviation, or medians (interquartile range).

Serum creatinine and eGFR values are from the month-4 follow up visit.

Supplementary Table 2. Top independent predictors of baseline FGF23 levels in 590 subcohort participants

	T Value	Beta	Standard Error	P value
Phosphate, per 1 unit increase	5.22	0.16	0.03	<0.001
eGFR, per 1 unit increase	-3.52	-0.002	0.001	<0.001
BMI, per 1 unit increase	3.19	0.009	0.003	0.002
Black	-1.95	-0.08	0.04	0.05
Hispanic	-1.12	-0.08	0.07	0.26
Hemoglobin A1C, per 1 unit increase	-1.03	-0.02	0.02	0.30
ln UACR, per 1 unit increase	0.58	0.01	0.02	0.56
Systolic blood pressure, per 1 unit increase	0.54	0.0005	0.001	0.59
Smoking	-0.30	-0.01	0.05	0.77
Age, per 1 unit increase	0.15	0.0004	0.003	0.88
History of any CVD	-0.10	-0.003	0.03	0.92
Female	0.04	0.001	0.03	0.97

Abbreviations: BMI, body mass index; eGFR, estimated glomerular filtration rate; CVD, cardiovascular disease; UACR, urine albumin-to-creatinine ratio.