

Supplementary Table 1: Studies excluded from quantitative synthesis and reason for their exclusion

#	Study	Participants	Age	MMPs	Outcome	Association in CKD/HD patients (magnitude)	P value	Direction	Details for exclusion
1	Fatema K.,(45) Japan (2004)	Total: 70 CKD: 30 HTN: 40	CKD: 62 ± 12 HTN: 60 ± 10	MMP-1 TIMP-1 TIMP-1/MMP-1	CV-IBS	CV-IBS in CKD (after HD) MMP-1: NR TIMP-1: NR TIMP-1/MMP-1: r= - 0.52	- - <0.05	- - ↓	Non-atherosclerosis specific outcome
2	Pawlak K.,(46) Poland (2005)	Total: 68 HD: 50 Controls: 18	HD: 58.0 ± 13 Controls: 54 ± 7	MMP-9 TIMP-1 TIMP-1/MMP-9	History of CVD	History of CVD in HD MMP-9: NR (unadjusted) TIMP-1: NR (unadjusted) TIMP-1/MMP-9 ratio: nr (unadjusted)	>0.05 >0.05 >0.05	↔ ↔ ↔	Non – atherosclerosis specific outcome.
3	Peireskova M.,(47) Czech Republic (2009)	Total: 124 CKD: 80 Controls: 44	CKD: 52±16 Controls: 58±10	MMP-2 PAPP-A	History of CVD	History of CVD in CKD MMP-2: NR (unadjusted) PAPP-A: NR (unadjusted)	<0.001 <0.001	↑ ↑	Non – atherosclerosis specific outcome.
4	Chung A.,(38) Canada (2009)	Total: 24 Diabetic CKD: 8 Non-Diabetic CKD: 8 Controls: 8	Diabetic CKD: 55 ± 8 Non-Diabetic CKD: 57 ± 11 Controls: 50 ± 8	MMP-2 MMP-9	Arterial stiffness Arterial calcification	Arterial stiffness (PWV) in CKD MMP-2+: MMP-9: r = 0.683 (unadjusted) Arterial Calcification(Phosphate) in CKD MMP-2+: MMP-9: r = 0.513 (unadjusted)	0.005 0.04	↑ ↑	MMPs expression levels, not serum levels
5	Chung A.,(37) Canada (2009)	Total: 70 CKD: 17 HD: 23 Controls: 30	CKD:54 ± 2.6 HD: 49 ± 2.8 Controls:30	MMP-2	Arterial stiffness Calcium deposit	Arterial stiffness in CKD MMP-2: r = 0.326 Arterial stiffness in HD MMP-2: r = 0.384 Arterial stiffness in PD MMP-2: r = 0.796	0.22 0.19 0.006	↔ ↔ ↑	Not serum level of MMP-S, Expression levels in arteries
6	Pawlak K., (48) Poland (2010)	Total: 88 PD: 70 Controls: 18	HD: 50.89 Controls: 47.94 ± 6.60	MMP-2 MMP-9 TIMP-1 TIMP-2	History of CVD	History of CVD in PD MMP-2: β = 0.365 (adjusted) MMP-9: NR TIMP-1: NR TIMP-2: β = 0.292 (adjusted)	0.02 - - 0.03	↑ - - ↑	Non – atherosclerosis specific outcome.
7	Sun Y.,(49) China (2012)	Total: 34 HD: 15 Controls: 19	HD: 62.6 ± 10.3 Controls: 60.1 ± 10.5	MMP-2 MMP-9 TIMP-2 TIMP-3 MMP-2/TIMP-2	cIMT Atherosclerosis Score	cIMT MMP-2/TIMP-2: OR: 16.43 (2.02-18.37) Coronary Atherosclerosis Score MMP-2/TIMP-2: OR: 5.57 (1.32-7.59)	<0.01 0.01	↑ ↑	Not serum level of MMP-S, Expression levels in veins

CKD: Chronic Kidney Disease, HD: Hemodialysis, PD: Peritoneal Dialysis, HTN: Hypertension, CVD: Cardiovascular Disease, MMP: Metalloproteinases, cIMT: carotid Intima Media Thickness, CV-IBS: cardiac cycle-dependent variation of ultrasonic integrated backscatter, r: Correlation, OR: Odds Ratio, β: Regression Coefficient, nr: non-reported