

Supplemental Material

Nephron mass determines the excretion rate of urinary extracellular vesicles

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Table S1. Antibodies

Techniques	Antibody	Type	Species	Concentration	Source	Cat#/clone
EVQuant	CD9 alexa-647	Primary	Mouse	1:25	Thermo SC	MA5-18154
CD9-TR-FIA	CD9-biotin	Capture	Mouse	1:500	Bioscience	SN4 C3-3A2
	CD9-Europium	Primary	Mouse	0.25ng/ μ L	CellGS	CGS12A
Immunoblot	WT1	Primary	Mouse	1:1000	Ventana	6F-H2
	CD9	Primary	Mouse	1:500	Bioscience	MAB1880
	TSG101	Primary	Mouse	1:333	Abcam	ab83
	Cubilin	Primary	Rabbit	1:12,000	Dr. Christensen	-
	NHE3	Primary	Rabbit	1:1000	Stressmarq	7644
	NaPi-IIa	Primary	Rabbit	1:500	Abcam	Ab83
	NKCC2	Primary	Rabbit	1:1000	Stressmarq	Spc-401D
	NCC	Primary	Rabbit	1:2000	Millipore	3553
	AQP2	Primary	Rabbit	1:1000	Stressmarq	9398
	Mouse HRP	Secondary	Goat	1:3000	Biorad	L005680
	Rabbit HRP	Secondary	Goat	1:3000	Biorad	L005679

Table S2. Comparison of baseline characteristics in female and male kidney donors

Variable	Females (n = 12)	Males (n = 7)	P-value
Age, years	61 ± 11	52 ± 12	0.1
Body mass index, kg/m ²	26 ± 7	25 ± 2	0.7
eGFR, ml/min*	89 ± 25	99 ± 18	0.4
Creatinine clearance, ml/min	99 ± 33	128 ± 7	0.04
Plasma sodium, mmol/L	143 ± 2	142 ± 2	0.4
Plasma potassium, mmol/L	4.0 ± 0.3	4.3 ± 0.3	0.05
24h urine			
Volume, mL	2096 ± 671	1581 ± 803	0.2
Osmolality, mOsm/kg	334 ± 130	734 ± 216	< 0.001
Creatinine, mmol/day	9.0 ± 2.6	17.1 ± 1.3	< 0.001
Sodium, mmol/day	109 ± 33	173 ± 44	0.002
Potassium, mmol/day	63 ± 23	101 ± 39	0.01
Protein, mg/day	80 ± 21	83 ± 18	0.8
Spot urine			
Protein to creatinine ratio, g/mmol	10.5 ± 5.5	7.1 ± 2.6	0.1

* Estimated glomerular filtration rate (eGFR) adjusted for body surface area.

Table S3. Patient characteristics nephrostomy drain study

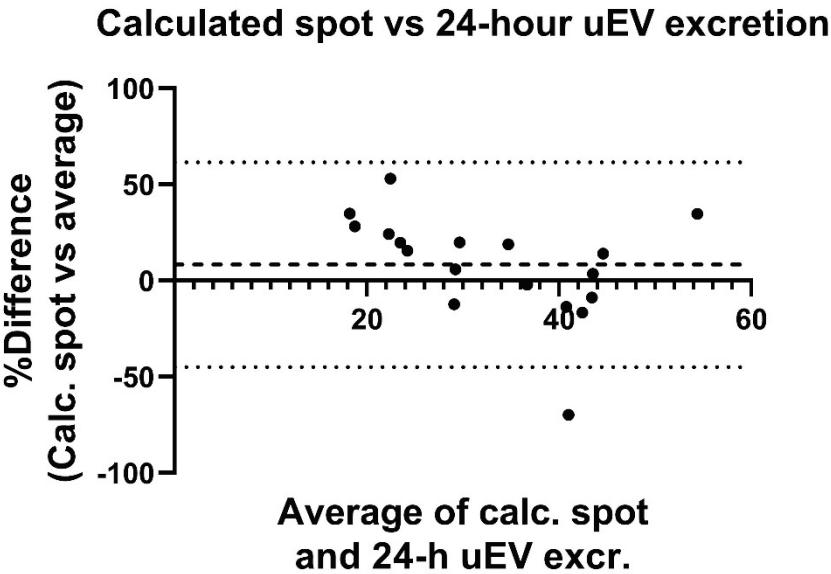
#	Sex, M/F	Age, years	eGFR, ml/min/1.73m ²	Reason for nephrostomy drain	Time drain placed, days	Collection time, min.
1	M	54	67	Kidney stones	1	105
2	F	30	118	Abscess	78	105
3	M	62	58	Colorectal cancer	27	135
4	F	62	35	Endograft	14	90
5	F	80	83	Colorectal cancer	55	120
6	M	86	22	Colorectal cancer	47	180
7	F	60	47	Metastatic cancer	38	N/A
8	M	59	99	Colorectal cancer	33	105
9	F	36	53	Kidney stones	27	90

Table S4. Characteristics urine samples from nephrostomy drain and bladder

Variable	Nephrostomy (n = 9)	Bladder (n = 9)	P-value
Collection time, min*	116 ± 30	116 ± 30	-
Creatinine clearance, ml/min*	31 ± 21	33 ± 18	0.60
Protein/creatinine, g/mmol	95 ± 56	68 ± 71	0.4
Albumin/creatinine, mg/mmol	69 ± 40	45 ± 52	0.4
Sodium excretion, μmol/min*	23 ± 10	23 ± 14	1.0
Potassium excretion, μmol/min*	11 ± 4	13 ± 7	0.4
Diuresis, ml/min*	0.3 ± 0.2	0.3 ± 0.1	0.5

* These data were available for 8 patients because collection time was not available in participant #7.

Figure S1: Bland-Altman



Legend Figure S1: Bland Altman analysis of calculated spot vs. 24-hour uEV excretion. The X-axis depicts the average of the two uEV excretion methods; on the Y-axis the percent difference of calculated spot excretion vs. the average of the uEV excretion methods is shown. Shown are Bias (---) and 95% Limits of agreement (....).

