

Supplemental Material

Supplemental Table 1. Baseline characteristics of included and excluded patients

Supplemental Table 2. Baseline characteristics of patients with and without AKI

Supplemental Table 3. Trend in serum creatinine among patients with AKI

Supplemental Table 1. Baseline characteristics of included and excluded patients

	Total N=274	Included n=218	Excluded n=56	<i>p</i> -value
Patient characteristics				
Men, <i>n</i> (%)	200 (73.0)	159 (72.9)	41 (73.2)	0.97
Age (years)	67.4 ± 11.5	68.1 ± 11.3	64.8 ± 12.1	0.07
Caucasian, <i>n</i> (%)	260 (94.9)	207 (95.0)	53 (94.6)	0.92
Diabetes, <i>n</i> (%)	94 (34.3)	69 (31.7)	25 (44.6)	0.07
Hypertension, <i>n</i> (%)	238 (86.9)	190 (87.2)	48 (85.7)	0.78
Heart Failure, <i>n</i> (%)	97 (35.4)	75 (34.4)	22 (39.3)	0.50
PVD, <i>n</i> (%)	47 (17.2)	40 (18.4)	7 (12.5)	0.30
COPD, <i>n</i> (%)	86 (31.4)	69 (31.7)	17 (30.4)	0.85
eGFR (ml/min/1.73m ²)	73.1 ± 19.6	71.9 ± 19.3	77.9 ± 20.1	0.05
Serum creatinine (mg/dL)	1.0 ± 0.3	1.1 ± 0.3	1.0 ± 0.2	0.09
LVEF %	51.2 ± 14.3	51.1 ± 14.5	51.4 ± 13.8	0.88
Preoperative radiocontrast, <i>n</i> (%)	197 (71.9)	150 (68.8)	47 (83.9)	0.02
Sample storage time (years)*	7.8 ± 2.5	8.4 ± 2.1	5.2 ± 1.8	<0.01
Uromodulin (µg/mL)	9.5 (5.7, 15.9)	9.1 (5.3, 15.5)	11.2 (8, 16.5)	0.20
Surgery characteristics				
Valve only, <i>n</i> (%)	123 (44.9)	99 (45.4)	24 (42.9)	0.73
CPB time (minutes)	118.6 ± 51.5	115.8 ± 47.5	129.8 ± 64.0	0.13
Non-elective surgery, <i>n</i> (%)	179 (65.3)	142 (65.1)	37 (66.1)	0.90
Outcomes				
AKI, <i>n</i> (%)	78 (28.5)	64 (29.4)	14 (25.0)	0.52
Severe AKI, <i>n</i> (%)	10 (3.7)	8 (3.7)	2 (3.6)	0.97
Peak postoperative serum creatinine	1.3 ± 0.5	1.3 ± 0.5	1.2 ± 0.4	0.34

All values expressed as *n* (%), mean ± SD or median (25th, 75th percentiles).

* Storage time for excluded patients is time from date of surgery to 9/3/2015 when uromodulin was assayed

Abbreviations: PVD- peripheral vascular disease, COPD- chronic obstructive pulmonary disease, eGFR- estimated glomerular filtration rate, LVEF- left ventricular ejection fraction, creatinine, CPB- cardiopulmonary bypass, AKI- acute kidney injury

Supplemental Table 2. Baseline characteristics of patients with and without AKI

	Total N=274	No AKI n=154	AKI N=64	<i>p</i> -value
Patient characteristics				
Men, <i>n</i> (%)	159 (72.9)	113 (73.4)	46 (71.9)	0.82
Age (years)	68.1 ± 11.3	66.5 ± 11.8	71.98 ± 8.8	<0.01
Caucasian, <i>n</i> (%)	207 (95.0)	143 (92.9)	64 (100.0)	0.03
Diabetes, <i>n</i> (%)	69 (31.7)	48 (31.2)	21 (32.8)	0.81
Hypertension, <i>n</i> (%)	190 (87.2)	130 (84.4)	60 (93.8)	0.06
Heart Failure, <i>n</i> (%)	75 (34.4)	41 (26.6)	34 (53.1)	<0.01
PVD, <i>n</i> (%)	40 (18.4)	23 (14.9)	17 (26.6)	0.04
COPD, <i>n</i> (%)	69 (31.7)	46 (29.9)	23 (35.9)	0.38
eGFR (ml/min/1.73m ²)	71.9 ± 19.3	75.5 ± 18.3	62.6 ± 18.6	<0.01
Serum creatinine (mg/dL)	1.1 ± 0.3	1.0 ± 0.3	1.2 ± 0.4	<0.01
ACR (mg/g)*	16.6 (6.7, 46.5)	15.2 (5.7, 47.4)	20.4 (9.2, 28.3)	0.17
LVEF %	51.1 ± 14.5	51.3 ± 14.6	50.7 ± 14.3	0.78
Preoperative contrast, <i>n</i> (%)	150 (68.8)	107 (69.5)	43 (67.2)	0.74
Sample storage time (years)	8.4 ± 2.1	8.3 ± 2.2	8.7 ± 2.1	0.28
Uromodulin/Cr (µg/g)*	10 (4.2, 22.8)	11.1 (5.1, 25.3)	7.7 (3.8, 18.4)	<0.01
Surgery characteristics				
Valve only, <i>n</i> (%)	99 (45.4)	59 (38.3)	40 (62.5)	<0.01
CPB time (minutes)	115.8 ± 47.5	110.7 ± 45.3	128.0 ± 50.9	0.02
Non-elective surgery, <i>n</i> (%)	142 (65.1)	103 (66.9)	39 (60.9)	0.40

All values expressed as *n* (%), mean ± SD or *median (25th, 75th percentiles)

Abbreviations: CAD-coronary artery disease, CKD- chronic kidney disease, eGFR- estimated glomerular filtration rate, Uromodulin/Cr- uromodulin-to-creatinine ratio, ACR-albumin to creatinine ratio, LVEF- left ventricular ejection fraction, CPB- cardiopulmonary bypass

Supplemental Table 3. Trend in serum creatinine among patients with AKI

Serum Creatinine	Quartile 1	Quartile 2	Quartile 3	Quartile 4	<i>Trend p-value</i>
Preoperative (0-hour)	1.18 ± 0.32	1.27 ± 0.54	1.17 ± 0.25	0.98 ± 0.12	0.26
Postoperative 24-hour	1.46 ± 0.33	1.59 ± 0.61	1.39 ± 0.30	1.21 ± 0.23	0.11
Postoperative 48-hour	1.67 ± 0.50	1.98 ± 0.72	1.64 ± 0.48	1.30 ± 0.16	0.13
Postoperative 72-hour	1.57 ± 0.55	2.00 ± 0.86	1.70 ± 0.64	1.26 ± 0.33	0.32