

## **Supplemental Material Table of contents**

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Supplemental Table 1. Clinical characteristics

	Total N=85	Severe AKI n=46	No severe AKI n=39
<b>Demographic and comorbidities</b>			
Age (y)	57 (49-66)	61 (50-69)	56 (47-62)
Gender: male	59 (69)	35 (76)	24 (61)
Weight (kg)	78 (70-90)	79 (70-91)	78 (68-90)
BMI (kg/m <sup>2</sup> )	29 (26-35)	30 (27-34)	29 (25-35)
Diabetes	43 (51)	20 (43)	23 (59)
Hypertension	39 (46)	19 (41)	20 (51)
Chronic lung disease	8 (9)	3 (6)	5 (13)
Previous heart disease	9 (11)	6 (13)	3 (8)
Chronic kidney disease	6 (7)	2 (4)	4 (10)
Previous ACEIs/ARBs	34 (40)	17 (37)	17 (44)
<b>Laboratories at admission</b>			
WBC (x mm <sup>3</sup> )	9.7 (7.2-13)	9.7 (7.2-12.3)	10.1 (7.2-13.5)
Hemoglobin (g/dl)	14.8 (13.5-16.3)	14.9 (14-16.5)	14.4 (13-16.1)
Lymphocytes (x mm <sup>3</sup> )	0.7 (0.5-1.2)	0.7 (0.5-1.2)	0.7 (0.4-1.2)
Platelets (x mm <sup>3</sup> )	233 (176-307)	228 (172-305)	242 (193-311)
Glucose (mg/dl)	158 (118-250)	160 (120-235)	141 (115-251)
Urea nitrogen (mg/dl)	23 (15-35)	27 (17-38)	19 (13-32)
D-dimer (ng/ml)	1146 (606-2675)	957 (579-1854)	1350 (610-3610)
LDH (U/L)	560 (412-742)	577 (506-729)	502 (384-755)
Albumin (g/dl)	3.2 (3.0-3.6)	3.2 (3.0-3.6)	3.1 (2.9-3.5)
Creatine kinase mg/dl)	159 (65-362)	188 (88-430)	126 (61-324)
C reactive protein (mg/L)	235 (117-342)	214 (127-284)	252 (79-348)
<b>In-hospital medication</b>			
Anticoagulant			
Prophylactic	38 (45)	21 (46)	17 (44)
Therapeutic	45 (53)	25 (54)	20 (51)
Antiviral	40 (47)	22 (48)	18 (46)
Lopinavir/ritonavir	31 (36)	17 (37)	14 (36)
Oseltamivir	9 (11)	5 (11)	4 (10)
Steroids	56 (66)	35 (76)	21 (54)
Tocilizumab	6 (7)	2 (4)	4 (10)
NSAIDs	7 (8)	4 (9)	3 (8)
Vancomycin	17 (20)	14 (30)	3 (8)
Amikacin/Gentamicin	5 (6)	1 (2)	4 (10)
Colistin	5 (6)	2 (4)	3 (8)
Amphotericin B	1 (1)	1 (2)	0 (0)
Vasopressors	70 (82)	42 (91)	28 (72)
<b>In-hospital evolution</b>			
Co-infections	45 (53)	31 (67)	14 (36)
Venous thrombosis	9 (11)	4 (9)	5 (13)
Length of hospital stay (days)	11 (7-16)	11 (8-17)	10 (3-16)
<b>Renal evolution</b>			
SCr at admission (mg/dl)	1.0 (0.8-1.5)	1.1 (0.8-1.7)	0.9 (0.7-1.4)
Maximum SCr (mg/dl)	2.5 (1.2-4.2)	3.9 (2.8-5.9)	1.2 (1.0-1.6)
SCr at end of follow-up (mg/dl)	1.9 (1.0-4.1)	3.1 (2.2-5.0)	1.0 (0.8-1.5)
Renal replacement therapy	15 (18)	15 (33)	

Data expressed as median (25<sup>th</sup>-75<sup>th</sup>) or as number (%).

Supplemental Table 2. Comparison of clinical and histopathological characteristics between patients with and without focal and segmental glomerulosclerosis (excluding 4 patients with tip variant).

	No FSGS n=60	FSGS n=21	p
<b>Baseline clinical characteristics</b>			
Gender: male	45 (75)	13 (62)	0.25
Diabetes	27 (45)	13 (62)	0.18
Hypertension	25 (42)	12 (57)	0.22
Chronic lung disease	4 (7)	3 (14)	0.28
Previous heart disease	7 (12)	2 (10)	0.79
Chronic kidney disease	2 (3)	2 (10)	0.26
<b>Tubulointerstitium</b>			
ATI			0.87
Mild	24 (40)	10 (48)	
Moderate	20 (33)	5 (24)	
Severe	11 (18)	4 (19)	
Bacterial foci	2 (3)	1 (5)	0.76
Protein casts	35 (58)	14 (67)	0.51
Molding casts	14 (23)	6 (29)	0.63
Pigment casts	31 (52)	13 (62)	0.42
Cytoplasmatic pigments	34 (57)	13 (62)	0.67
Syncytium	16 (27)	7 (33)	0.56
Regeneration			0.21
Mild	35 (58)	12 (57)	
Moderate	16 (27)	9 (43)	
Severe	6 (10)	0 (0)	
Isometric vacuolation	45 (75)	18 (86)	0.31
Microthrombosis	2 (3)	0 (0)	0.39
<b>IFTA</b>			
0	27 (45)	5 (24)	
1	25 (42)	11 (52)	
2	4 (7)	5 (24)	
3	4 (7)	0 (0)	
Tubulointerstitial nephritis	4 (7)	2 (10)	0.67
<b>Glomeruli</b>			
Hypoperfusion	28 (47)	14 (67)	0.11
<b>Diabetic nephropathy</b>			
No	48 (80)	13 (62)	
DGP class IIA	3 (5)	2 (10)	
DGP class IIB	8 (13)	3 (14)	
DGP class III	1 (2)	3 (14)	
Glomerulomegaly	12 (20)	11 (52)	0.005
Thrombotic microangiopathy	2 (3)	2 (10)	0.26
Arteriosclerosis	45 (75)	20 (95)	0.13
<b>Electron microscopy</b>			
Loss of tubular epithelium	35 (58)	13 (62)	0.77
Mitochondrial edema	43 (72)	19 (90)	0.08
Multivesicular bodies	27 (45)	9 (43)	0.86
Clathrin coated structures	17 (28)	8 (38)	0.41
Podocyte foot processes edema	7 (12)	5 (24)	0.18
Endothelial edema	11 (18)	4 (19)	0.94
GBM thickening	10 (17)	7 (33)	0.11
Mesangial sclerosis	8 (13)	6 (29)	0.11

Data expressed as n (%)

## Supplemental Material. Histopathological criteria

### Focal and segmental glomerulosclerosis (FSGS): Columbia classification

Not otherwise specified: Segmental increase in matrix obliterating the capillary lumina, excluding other FSGS variants.

Perihilar: Perihilar hyalinosis, >50% of glomeruli with segmental lesions must have perihilar sclerosis or hyalinosis.

Tip: At least 1 segmental lesion involving the tip domain (outer 25% of tuft next to origin of proximal tubule), and the lesion must have either an adhesion or confluence of podocytes with parietal or tubular cells.

Cellular: At least 1 glomerulus with segmental endocapillary hypercellularity occluding lumina.

Collapsing: At least 1 glomerulus with segmental or global collapse and overlying podocyte hypertrophy and hyperplasia.

Glomerulomegaly: glomerular tuft larger than 1.5x that in age-matched controls.

Glomerular hypoperfusion: retraction and collapse of the glomerular capillary tuft.

Thrombotic microangiopathy (TMA): presence of fibrin thrombi and endothelial swelling in arteriole or glomerular capillary with ischemic changes.

Acute interstitial nephritis (AIN): interstitial edema and predominant mononuclear cell infiltration.

Acute tubular injury (ATI): flattening of the tubular epithelium, loss of brush border and vacuolization, with variable intraluminal granular casts.

Diabetic glomerulopathy: mesangial matrix expansion, nodular sclerosis, diffuse membrane thickening and arteriole hyalinosis.