Supplemental Table. Detailed Characteristics of Published Cases with Collapsing Glomerulopathy

Author	Age	Gender	Race	APOL1 alleles	Comorbidities	Disease severity	Peak Serum Creatinine (mg/dL)	Baseline Serum Creatinine (mg/dL)	Proteinuria (g/g unless specified g/day)	# glomeruli with collapse/Total glomeruli	Acute tubular injury	TRIs Present?	Viral particles on EM	Viral RNA detected?	COVID19 or Renal specific Treatment	Renal Outcome	Patient Outcome
Akilesh et al. [1]	46	M	B	G1/G1	HTN	N/A	AKI-D 8.7*	N/A	13.7	1/9	Y	N	N	N/A	N/A	Dialysis dependent	Alive
	60	F	B	N/A	HTN	N/A	5.7*	N/A	21	2/4	Y	N	N	N/A	N/A	N/A	N/A
	58	F	B	N/A	HTN	N/A	AKI-D 10.2*	N/A	20	6/25	Y	N	N	N/A	N/A	Dialysis dependent but improving	Alive
	44	M	H	G2/G2	None	N/A	AKI-D 12*	N/A	11.4	1/4	Y	N	N	N/A	N/A	Dialysis dependent	Alive
	58	M	B	N/A	None	N/A	AKI-D 11.3*	N/A	4 g/d	3/21	Y	Y	N	N/A	N/A	Recovery, SCr 1.5 mg/dL	Alive
	47	M	B	N/A	HTN	N/A	AKI-D 6.6*	N/A	7.6	1/14	Y	N	N	N/A	N/A	Dialysis dependent	Alive
	63	F	B	N/A	HTN	N/A	AKI-D 6*	N/A	20	1/36	Y	N	N	N/A	N/A	Dialysis Dependent	Alive
Couturier et al. [2]	53	M	B	G1/G1	HTN Heart failure	Mechanical ventilation	2.19	1.02	16.5	1/8	Y	N/A	N	Negative RT-PCR in blood, urine and tissue	oseltamivir, spiramycin, azithromycin, hydroxy-chloroquine	Near baseline function, UPCR 4.5	Alive
	53	M	B	G1/G2	HTN chronic hepatitis B	4L Nasal canula	5.98	1.35	2.65 g/d	3/11	N	N/A	N	Negative RNA in urine	None reported	Near baseline function, Proteinuria 1.5 g/d	Alive
Deshmukh et al. [3]	42	M	I	N/A	None	Mild, outpatient	No AKI	1	8	Not specified	Y	N/A	Y	N/A	Lisinopril	Lost to follow up	
Gaillard et al. [4]	79	M	B	N/A	stroke, CKD stage 3 HTN	N/A	AKI-D	N/A	11.4	Not specified	Y	Y	N	N/A	ritonavir/ lopinavir + dexamethasone + 7x plasma exchange	Dialysis dependent on day 21 after diagnosis	Alive
Hoilat et al. [5]	63	F	B	G1/G2	CKD, SLE, and APLS	N/A	4.6	1.3	6.8 g	15%	Y	N/A	N	N/A	Steroid taper (for CG), lisinopril	SCr 2.1, UPCR 3.8 g	Alive
Izzedine et al. [6]	49	F	B	G1/G1	HTN, heart allograft, CKD, obesity, and diabetes	N/A	AKI-D 8.63	1.78	6.6 g (baseline UPCR 0.26 g/g)	2/12	Y	N/A	N	IHC antibodies to NP nonspecific	None reported	Recovering, SCr 2.8 mg/dL	Alive

	38	F	B	G1/G1	HTN, obesity, CKD, and hx Class IV lupus nephritis	N/A	11.68	1.63	19 (UPCR 1)	3/14	Y	N/A	N	IHC antibodies to NP nonspecific	None reported	SCr 2.9 mg/dL	Alive
Kadosh et al. [7]	56	M	B	Unknown	Heart transplant ischemic cardio-myopathy, CKD	No oxygen and no pressor requirement	7.78	N/A	7.35	Not specified	Y	N/A	Y	N/A	Hydroxy-chloroquine & nitazoxanide. Myco-phenolate and prednisone were stopped	Recovered renal function	Alive
Kissling et al. [8]	63	M	B	G1/G1	HTN	4L Nasal canula	8.4	1.2	5	Not specified	Y	N	N	Negative RT-PCR	None	SCr 5.5 mg/dL at discharge. UPCR 1.8	Alive
Kudose et al. [9]	46	M	B	Three consented for testing: 2 G1/G1 and 1 G1/G2	OSA Obesity	None were intubated, but not enough information reported	AKI-D 12.5	1.1	5.8	14/20	Y	N/A	N	N/A	Tocilizumab, steroids	Dialysis dependent, UPCR 10.2	Alive
	62	M	B		HTN Prostate cancer		10.7	2	12.1	2/8	Y	Y	N	N/A	None	SCr 3.8 mg/dL, UACR 5.5 g/g	Alive
	62	M	B		HTN Diabetes Prostate cancer		11.6	1	19	4/18	Y	N	N	N/A	steroids, hydroxychloroquine	SCr 2.3 mg/dL, UPCR 4 g/g	Alive
	57	M	B		HTN Untreated hepatitis C		4.9	1.1	6.2	5/10	Y	N/A	N	N/A	Azithromycin	SCr 4.9 mg/dL, UPCR 4.1 g/g	Alive
	61	M	B		HTN Obesity		AKI-D 15	"Normal"	9	7/11	Y	N	N	N/A	None reported	Dialysis dependent	Alive
Laboux et al. [10]	57	M	B	G1/G1	Hypertension	No oxygen and no pressors.	AKI-D 30.3	0.8	1.2	Not specified	Y	N	N	N/A	ACE inhibitor	SCr 1.6 mg/dL and UPCR 1.6 g/g	Alive
Larsen et al. [11]	44	F	B	G1/G1	CKD Diabetes HTN	2-3 L Oxygen by nasal cannula	AKI-D 11.4*	1.4	3.9 →25 at dialysis initiation	14/24	Y	Y	N	Negative ISH	None reported	Dialysis dependent with good urine output	Alive
Lazareth et al. [12]	29	M	B	Recipient G0/G0 Donor G0/G2	Kidney transplant recipient ABMR 4 months prior	No ICU stay	6.04	3.27 (in setting of rejection)	7	Not specified	Y	N/A	N	Negative ddPCR	Myco-phenolate held temporarily.	SCr 3.68 mg/dL. UACR 1.5 g/g	Alive
Levenson et al. [13]	16	M	B	Unknown	p-ANCA vasculitis Kidney transplant ABMR Stroke	Required oxygen by nasal canula. No ICU stay.	4.7	1.5-2.3	17	3/9	Y	N/A	N	IHC antibodies in proximal tubule epithelium	- IV steroids - 2 x IVIg (for rejection) - Held mycophenolate	Two month post: SCr 1.7 mg/dL UPCR 1.2 mg/mg.	Alive

Magoon et al. [14]	28	F	B	G1/G1	Asthma	Required oxygen by nasal cannula	AKI-D 6.5	0.99	2	50%	Y	N/A	N	N/A	None reported	Required dialysis for 34 days with partial recovery	Alive
	56	M	B	G1/G2	HTN, CKD 3	Required oxygen	AKI-D 7.72	2	> 21	5/36	Y	N/A	N	N/A	None reported	Required dialysis for 23 days with partial recovery	Alive
Malhotra et al. [15]	64	M	B	Wild type/G1	HTN, DM, CKD, and HIV controlled on HAART	Mechanical ventilation	AKI-D 2.3**	N/A	2.74 mg/mg	1/6	Y	N/A	N	N/A	IV Solumedrol, Vitamin C, Oxiris filter on dialysis	Dialysis dependent	Alive
Nasr et al. [16]	30	M	B	2 with G1/G2	Multiple sclerosis (no interferon)	N/A	AKI-D 10	1	6.3	2/3	Y	Y	N	N/A	steroids	SCr 1.5, UPCR 6.6	Alive
	52	M	B		HTN, obesity		AKI-D 9.8	1.2	2.9	4/4	Y	N	N	N/A	Hydroxy-chloroquine, azithromycin	Off dialysis, SCr 3, UPCR 12.1	Alive
	51	M	B		HTN, DM, obesity		AKI-D 11	2.3	11	3/24	Y	N	N	N/A	steroids	Dialysis denpendent	Alive
	58	M	B		HTN		AKI-D 14	1.6	3.5	2/11	Y	Y	N	N/A	steroids	Off Dialysis, SCr 1.7	Alive
	69	M	B		HTN, obesity		AKI-D 5	N/A	13	4/18	Y	Y	N	N/A	steroids	Dialysis dependent	Alive
	67	F	B		HTN, obesity, DM		AKI-D 8.3	1.1	3.3	2/7	Y	Y	N	N/A	steroids, hydroxychloroquine, azithromycin	Dialysis dependent	Alive
	41	M	B		None		4.6	N/A	4.7	29/42	Y	N	N	N/A	Hydroxy-chloroquine	Partial recovery, SCr 2.4 mg/dL	Alive
	71	M	B		HTN, obesity, CKD		AKI-D 8.9	1.2	14	2/48	Y	Y	N	N/A	hydroxy-chloroquine, azithromycin	Dialysis dependent	Alive
Nlandu et al. [17]	48	M	B	Unknown	Diabetes HTN	No oxygen and no pressor requirement	AKI-D 13	0.72	18 g	16/17	Y	N/A	N	N/A	IV methyl-prednisolone 500 mg x 3, cyclophos-phamide 500mg	Off Dialysis, SCr 5mg/dL after 2 wks	Alive
Noble et al. [18]	54	M	B	Unknown	HTN, CKD 2 obesity	No oxygen requirement	AKI-D 13.5	1.41	3.2	8/20	Y	N/A	Y	N/A	None	Off dialysis, SCr 8.15 mg/dL	Alive
	45	M	B	Unknown	Kidney transplant CKD stage 4 DM, obesity	Shock, supplemental oxygen	AKI-D 14.05	3.2	9.6	7/17	Y	N/A	N	N/A	MMF held, Prednisolone doubled	Dialysis dependent. 3 liters/24 hr urine output	Alive

Peleg et al. [19]	46	M	B	G1/G1	Obesity	No ICU stay, no oxygen requirement	AKI_D 19.9	1.1	5.805 , 10.376 g/24hr	14/20	Y	N/A	N	N/A	Tocilizumab Prednisone 80 mg x 1 month with taper	Dialysis dependent	Alive
Sharma et al. [20]	77	F	B	Unknown	HTN, Cardiac disease	6L Oxygen requirement	AKI-D 8.3	Normal function	1.5 g	Not specified	Y	N/A	N	N/A	Steroids (for COVID-19) , Hydroxy-chloroquine	Partial recovery, off dialysis	Alive
Shetty et al. [21]	64	M	B	G1/G2	None	ICU stay. No ventilation required	7.2	1.2	7.6 g	Not specified	Y	Y	N	N/A	None	SCr 2.5 mg/dL	Alive
	50	F	B	G1/G1 in patient, G1/G0 in donor	Kidney transplant HTN, DM, CKD	No ICU stay	5.99	2.5	6.11 g	Not specified	Y	Y	N	N/A	None	SCr 4.81 mg/dL	Alive
	54	M	B	Unknown	DM, HTN CKD	No ICU stay	8.82	4	0.6 g (oliguric)	Not specified	Y	Y	N	N/A	None	SCr 4.53 mg/dL	Alive
Wu et al. [22]	63	M	B	G1/G1	3 CKD Stage 3, 4 HTN 3 DM	2 required mechanical ventilation. Non required pressors	AKI-D	1.3	3+	6/18	Y	Y	N	Negative RNA-ISH	N/A	Dialysis dependent	Alive
	64	F	B	G2/G2			4.2*	1.5	3+	3/25	Y	N	N	Negative RNA-ISH		Improving renal function	Alive
	65	F	B	G1/G1			AKI-D 2.9*	1.3	3+	1/18	Y	Y	N	Negative RNA-ISH		Dialysis dependent	Death (PE)
	44	M	B	G1/G1			AKI-D 11.4*	1.4	3+	2/24	Y	Y	N	Negative RNA-ISH		Dialysis dependent	Alive
	37	M	B	G1/G2			AKI-D 9*	1	3+	3/14	Y	N	N	Negative RNA-ISH		Dialysis dependent	Death (arrhy-thmia)
	56	M	B	G1/G1			AKI-D 6.7*	1.2	3+	3/7	Y	N	N	Negative RNA-ISH		Off Dialysis	Alive

* Serum creatinine obtained at time of biopsy

EM = electron microscopy; M=Male; F=Female; B=Black; I=Indian; H=Hispanic; DM= Diabetes Mellitus; HTN = Hypertension; CKD = chronic kidney disease; ATI = acute tubular injury; ABMR = Antibody mediated rejection; APLS = antiphospholipid syndrome; AKI-D = Dialysis requirement; SCr = Serum creatinine; TRI: tubuloreticular inclusions; ISH = in-situ hybridization, IHC = immunohistochemistry; NP = nucleoproteins; RT-PCR = reverse transcription polymerase chain reaction, ddPCR = droplet digital PCR; PE = pulmonary embolism

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