

Supplementary Table 1. Detailed characteristics of the 29 HIV-infected patients with Tubulopathy

N°	Age Gender	Race	CD4 ⁺ count	HIV VL	AIDS	ARV exposure	HTN	Peak sCr	eGFR	RIFLE	RRT	P _u /C _u	Hu	Lu	PTD	NDI	ATN	Mechanism of tubular injury	Main Etiology	Specific Treatment	Renal Function at Last Follow-up (SCr, M _x)
1	34/M	B	116	NA	-	TDF/DVR/RTV	-	1.77	44	AKI	-	486	-	-	+	-	-	Drug/Toxic	TDF	TDF withdrawal	NA
2	53/M	H	168	8x10 ⁴	-	TDF/ATZ/ddI/ 3TC/RTV	-	0.85	94	NRF	-	<442	-	-	+	-	-	Drug/Toxic	TDF	NA	NA
3	39/M	C	450	2x10 ⁵	+	TDF/ATZ/3TC/ RTV	-	1.39	57	Risk	-	<442	-	-	+/-FS	-	-	Drug/Toxic	TDF	TDF withdrawal	CR (0,90 mg/dl, M73)
4	61/M	C	270	<500	-	TDF/ATZ/ABC/ RTV/EFV/SQV	+	1.56	48	Risk	-	1768	-	-	+	-	-	Drug/Toxic	TDF	TDF withdrawal	NA
5	42/M	C	441	<40	+	TDF/RTV//3TC/ d4T/DVR	NA	1.19	71	NRF	-	963	-	-	+	+	-	Drug/Toxic	TDF	TDF withdrawal	CR (1.02 mg/dl, M37)
6	46/M	C	657	<40	+	TDF/RTV/ATZ/ ABC/3TC/IDV	-	1.58	47	AKI/CKD	-	1060	-	-	+/-FS	-	-	Drug/Toxic	TDF	Adjunction of Probenecid	Stable-CKD (1.66mg/dl, M7)
7	53/M	C	<10	<40	+	TDF/3TC/RTV/ FOS-APV	NA	1.80	40	AKF	-	1573	-	+	+/-FS	-	-	Drug/Toxic	TDF	TDF withdrawal	Worsening-CKD (3.19 mg/dl, M2)
8	51/F	B	108	472	-	TDF/3TC/AZT/ EFV/d4T/ABC	-	0.85	91	Risk	-	2722	-	-	+	-	-	Drug/Toxic	TDF	TDF withdrawal	CR (0.61mg/dl, M55)
9	44/F	C	ND	NA	+	TDF/ddI/RTV/ LOP	-	2.15	25	AKI	-	1326	-	-	+/-FS	+	-	Drug/Toxic	TDF	TDF withdrawal	PR (1.36 mg/dl, M3)
10	53/M	C	501	<40	-	TDF/RTV/FOS- APV/ ABC/3TC	-	1.40	53	CKD	-	1891	NA	NA	+	-	-	Drug/Toxic	TDF	TDF withdrawal	CR (1.10 mg/dl, M8)
11	63/F	C	193	467	+	TDF/ATZ/3TC/ RTV	-	1.66	31	AKI	-	8318	-	NA	+/-FS	-	-	Drug/Toxic	TDF	TDF withdrawal	PR (1.29 mg/dl, M3)
12	36/M	C	2	>5x10 ⁵	+	TDF/AZT/3TC/ ABC/RTV/LOP	+	7.38	9	AKF	+	<442	-	-	-	-	+	Drug/Toxic	TDF	TDF withdrawal	CR (0.85mg/dl, M60)
13	57/M	C	729	<40	+	TDF/ATZ/FTC/R TV	-	4.65	14	AKI/CKD	-	NA	+	NA	-	-	+	Drug/Toxic	TDF	TDF withdrawal	PR-CKD (2.87 mg/dl, M9)
14	56/M	C	194	<40	-	TDF/ATZ/RTV	-	16.33	3	AKF/CKD	+	1812	NA	NA	+	-	+	Drug/Toxic	TDF (+Dehydration)	TDF withdrawal	PR-CKD (1.39mg/dl, M9) (Dialysis free)
15	46/M	C	565	<40	-	TDF/RTV/LOP	-	12.78	3	AKF	+	1688	NA	NA	+	-	+	Drug/Toxic	TDF (+NSAIDs)	TDF + NSAIDs withdrawal	PR-CKD (1.67 mg/dl, M15) (Dialysis free)
16	48/F	C	170	<40	+	TDF/3TC/RTV/ ABC/RTG/DVR	-	3.18	16	AKI/CKD	-	3023	-	-	+/-FS	-	+	Drug/Toxic	TDF (+NSAIDs +Dehydration)	TDF + NSAIDs withdrawal	PR-CKD (1.72 mg/dl, M12)
17	38/M	C	95	5x10 ⁴	+	ddI/3TC/RTV/ LOP	-	3.72	21	AKF	-	1326	-	-	+	+	-	Drug/Toxic	ddI	ddI withdrawal	NA
18	32/M	B	5	<40	+	TDF/AZT/3TC/ NFV	NA	11.76	5	AKF/CKD	+	5038	+	-	+	-	-	Drug/Toxic	CDF (+TDF)	CDF withdrawal	ESRD-LTD (M18)

19	33/M	C	10	>10 ⁵	+	RTV/ABC/3TC	-	4.90	14	AKF	-	1944	-	-	+	-	+	Drug/Toxic	CDF	CDF withdrawal	ESRD-LTD (M7)
20	85/F	C	352	<40	-	TDF/RTV/DVR	-	9.61	4	AKF	+	13260	NA	NA	+	-	+	Drug/Toxic	Metformin-associated lactic acidosis (+TDF)	Metformin + TDF withdrawal	ESRD-LTD (M8)
21	43/M	C	30	220	+	AZT/3TC/RTV/LOP	NA	2.71	26	AKF	-	NA	-	-	-	-	+	Drug/Toxic	Vancomycin	Drug withdrawal	CR (0.99mg/dl, M86)
22	54/M	C	64	>5x10 ⁴	+	-	+	4.47	14	AKF	-	972	-	-	-	-	+	Drug/Toxic	Rifampicin (+IoCM)	Drug withdrawal	PR-CKD (1.33 mg/dl, M132)
23	43/M	B	2	1x10 ⁷	+	RTV/ABC/3TC/DVR	-	2.60	35	AKI	-	698	-	NA	-	-	+	Drug/Toxic	Amphotericin B	Drug withdrawal	PR (2.26mg/dl, M1)
24	43/M	C	600	<40	-	TDF/IDV/RTV/LOP/ddI	+	11.50	5	AKF	+	3474	-	-	+	-	-	Mixt (Ischemic + Drug/Toxic)	Sepsis shock (+TDF)	ATB + TDF withdrawal	PR-CKD (1.60 μmol/l, M6)
25	23/F	B	37	200	+	TDF/ATZ/ABC/RTV	-	1.81	45	AKI	-	NA	+	-	+ /FS	-	+	Mixt (Ischemic + Drug/Toxic)	Sepsis shock (+TDF)	ATB	Death (<M1)
26	35/M	C	220	8000	+	IDV/3TC/AZT/RTV	-	7.66	8	AKF	+	<442	+	+	-	-	+	Ischemic	Sepsis shock	ATB	Death (<M1)
27	50/M	C	1	6200	+	-	+	11.23	5	AKF/CKD	+	NA	-	-	-	-	+	Ischemic	Sepsis	ATB	Death (<M1)
28	44/M	C	63	4800	+	IDV/3TC/d4T	+	13.16	3	AKF	+	NA	+	-	-	-	+	Other	Myeloma cast nephropathy (+IoCA +NSAIDs)	Chemotherapy	Death (<M1)
29	36/F	B	170	<40	+	TDF/RTV/LOP	-	2.18	27	AKI	-	2652	-	-	+	-	-	Other	Undetermined	NA	PR (1.53 mg/dl, M5)

NA, not available; M, male; F, female; B, Black; H, Hispanic; C, Caucasian; VL (copies/mL), viral load; AIDS, acquired immunodeficiency syndrome; ARV, antiretroviral; TDF, tenofovir; DVR, darunavir; RTV, ritonavir; ATZ, atazanavir; ddi, didanosine; 3TC, lamivudine; LPV, lopinavir; ABC, abacavir; EFV, efavirenz; SQV, saquinavir; IDV, indinavir; FOS-APV, fosamprenavir; d4T, stavudine; AZT, zidovudine; NfV, nelfinavir; RTG, raltegravir; FTC, emtricitabine; HTN, hypertension; sCr (mg/dl), serum Creatinine; eGFR (ml/min/1.73m²), estimated Glomerular Filtration Rate; AKI, acute kidney injury; AKF, acute kidney failure; CKD, chronic kidney disease; RRT, renal replacement therapy; P_u/C_u (mg/g), proteinuria-to-creatinuria ratio; Hu, hematuria; Lu, leukocyturia; PTD proximal tubular dysfunction; FS, overt Fanconi's syndrome; NDI, nephrogenic diabetes insipidus; ATN, acute tubular necrosis; CDF, Cidofovir; NSAIDs, non-steroidal anti-inflammatory drugs; IoCM, iodinated contrast media; ATB, antibiotherapy; CR, complete recovery; PR, partial recovery; ESRD-LTD, end-stage renal disease with long-term dialysis; M_x, months.

Supplementary Table 2. Detailed characteristics of the 30 HIV-infected patients with Interstitial Nephritis

N°	Age Gender	Race	CD4 count	HIV VL	AIDS	ARV exposure	Fever Rash	HT	Peak sCr	eGFR	RIFLE	RRT	P _u /C _u	Hu	Lu	Etiology	Other biopsy findings	Treatment	Renal function at Last Follow-up (M _u)
GRANULOMATOUS INTERSTITIAL NEPHRITIS																			
1	54/F	B	110	2.7x10 ⁴	+	-	+/-	-	5,69	9	AKI	-	3182	+	-	Opportunistic Infection (disseminated TB)	caseous necrosis Tubulopathy	ATB + Steroids	Death (<M1)
2	53/M	C	50	<40	+	IDV/D4T/3TC	-/-	-	5.92	11	AKI/CKD	-	1502	+	-	Opportunistic Infection (AMI)	TA	ATB + Steroids	NA
3	42/M	C	73	<40	+	3TC/AZT/RTV/ FOS-APV	-/-	-	2.86	24	AKI/CKD	-	981	-	-	Opportunistic Infection (AMI)	Tubulitis, TA	ATB + Steroids	CR (0.79 mg/dl, M52)
4	32/M	C	74	<40	+	TDF/RAL/T-20/ ABC/3TC	-/-	-	3.2	23	AKI	-	5471	-	NA	Opportunistic Infection (AMI)	Tubulitis, ATN	ATB + Steroids	PR-CKD (1.74 mg/dl, M15)
5	47/M	C	354	6.4x10 ⁴	-	-	-/-	-	1.73	43	AKI	-	442	-	-	Undetermined	Tubulitis, TA IgAN	HAART initiation	CR (1.07 mg/dl, M54)
6	67/M	C	282	<40	+	3TC/NFV/NVP	-/-	-	2.85	22	AKI/CKD	-	442	-	-	Undetermined	TA	ATB + Steroids	PR-CKD (1.98 mg/dl, M1)
NON GRANULOMATOUS INTERSTITIAL NEPHRITIS																			
7*	51/M	C	NA	NA	+	NA	-/-	NA	NA	<60	AKI	-	NA	NA	NA	Drug (FOS)	Crystal nephropathy	Drug withdrawal	NA
8*	35/M	C	NA	NA	+	NA	-/-	NA	5.65	12	AKI	-	2210	NA	NA	Drug (FOS)	Crystal nephropathy	Drug withdrawal	NA
9*	33/F	C	113	1200	-	IDV/AZT/3TC	-/-	NA	2.06	29	AKI	-	<442	+	+	Drug (IDN)	Crystal nephropathy	Drug withdrawal	PR-CKD
10	37/M	C	214	<40	-	IDV/AZT/3TC	-/-	NA	2.24	35	AKI	-	+	+	+	Drug (IDN)	Crystal nephropathy	Drug withdrawal	PR-CKD
11	44/M	B	NA	NA	+	RTV/DRV/ABC/ 3TC	-/-	-	0.84	121	NRF	-	2545	-	NA	Drug (ABC)	Tubulopathy	Drug withdrawal	NRF (M21)
12	48/M	B	711	7000	-	DDI/NFV/AZT	-/-	NA	1182	5	AKF/CKD	+	1768	+	+	Drug (NSAIDs)	Interstitial hemorrhage	Drug withdrawal	PR-CKD (3.39 mg/dl, M½)
13	56/M	C	NA	NA	-	TDF/RTN/RTV/ /LOP/EFV	-/-	-	13.37	6	AKF	+	2210	-	-	Drug (NSAIDs)	ATN	Drug withdrawal	CR (1.11 mg/dl, M2)
14	45/M	B	52	1.8x10 ⁵	+	-	-/-	+	1.40	66	AKI	-	786	+	-	Drug (TMP/SMZ)	-	Drug withdrawal	CR (0.98 mg/dl, M10)
15	57/M	H	974	<40	+	3TC/EFV/RTV/ LPV/IDV	-/-	-	2.53	26	CKD	-	1334	+	+	Dysimmune (DILS)	Tubulitis, Tubulopathy	None	Stable-CKD (2.46mg/dl, M36)
16	42/M	C	455	<40	+	TDF/EMT/RTV/ LPV/ABC/3TC	-/-	-	4.88	13	AKI/CKD	-	671	-	NA	Dysimmune (DILS)	TA mild NAS	Steroids	PR-CKD (3.30 mg/dl, M2)
17	29/M	B	NA	1.5x10 ⁴	+	EFV/ABC/3TC/ RTV/LPV	+/-	-	2.08	46	AKI	-	<442	-	-	Dysimmune (DILS)	Tubulitis	Steroids	CR (1.02 mg/dl, M8)
18	30/F	B	26	5.7x10 ⁴	+	HAART	+/-	-	1.62	45	AKI	-	733	-	-	Dysimmune (IRIS)/TB	TA	ATB + Steroids	CR (0.85 mg/dl, M12)
19	49/M	B	6	3.9x10 ⁵	+	HAART Including TDF	+/-	-	2.49	34	AKI	-	2917	NA	NA	Dysimmune (IRIS)/TB	Tubulitis, TA	ATB + Steroids	CR (1.06 mg/dl, M68)

20	54/M	H	NA	94	+	FOZ/RTV/ABC/3TC	-/-	-	1.85	38	AKI	-	<442	-	NA	Multicentric CD	mild to moderate NAS	Chemotherapy	CR (1.12 mg/dl, M10)
21	50/M	C	750	<40	-	ABC/3TC/RTV/SQV	-/-	+	13.80	4	AKF	+	530	+	+	Hantavirus infection	medullary hemorrhage	NA	CR (1.13mg/dl, M15)
22	51/M	C	175	NA	-	-	+/-	-	6.04	11	AKF	-	<442	+	-	Undetermined	MN	HAART initiation	CR (1.10 mg/dl, M156)
23	40/F	C	196	170	-	TDF/3TC/RTV/LPV	-/-	-	2.73	19	AKF	-	6541	-	-	Undetermined	Tubulitis, Tubulopathy MN	NA	CR (0.94mg/dl, M7)
24	33/F	B	293	4x10 ⁴	-	HAARTincluding ABC	+/-	+	0.57	146	NRF	-	760	-	-	Undetermined	Tubulitis	NA	NA
25	46/M	A	712	<40	+	3TC/D4T/NVP	-/-	NA	1.29	60	Risk	-	<442	+	-	A/CTIN (recurrent IDN lithiasis?)	TA IgAN	None	CR (1.10 mg/dl, M12)
26	48/M	B	546	<40	-	TDF/ATZ/RAL/RTV/ABC/3TC	-/-	+	1.82	42	Risk	-	1493	-	-	A/CTIN (Toxicity of TDF?)	mild to moderate NAS	None	Stable-CKD (1.83 mg/dl, M28)
27	40/M	C	NA	<40	-	TDF/ATZ/RTV/LPV	-/-	-	1.05	83	NRF	-	1644	-	NA	CTIN	-	None	NA
28	55/F	C	182	4816	-	RTV/LPV/AZT/3TC	-/-	+	1.03	59	Risk	-	1617	-	NA	CTIN (history of ATN)	-	None	CR (0.80 mg/dl, M14)
29	33/F	B	450	<40	-	TDF/ABC/LPV	-/-	-	1.48	49	AKI	-	3182	+	+	CTIN	Tubulopathy	None	Worsening-CKD (1.83 mg/dl, M31)
30 *	38/M	C	NA	NA	+	NA	-/-	+	3.03	25	Risk	-	1326	-	+	CTIN (Toxicity of FOS?)	TA	None	NA

* Renal biopsy performed before 1997.

HAART, highly active antiretroviral therapy with no more precision; NA, not available; M, male; F, female; B, Black; H, Hispanic; C, Caucasian; A, Asian; VL (copies/mL), viral load; AIDS, acquired immunodeficiency syndrome; ARV, antiretroviral; TDF, tenofovir; DRV, darunavir; RTV, ritonavir; ATZ, atazanavir; ddI, didanosine; 3TC, lamivudine; LPV, lopinavir; ABC, abacavir; EFV, efavirenz; SQV, saquinavir; IDV, indinavir; FOS-APV, fosamprenavir; d4T, stavudine; AZT, zidovudine; NFV, nelfinavir; RAL, raltegravir; FTC, emtricitabine; T-20, enfuvirtide; NVP, nevirapin; HTN, hypertension; sCr (mg/dl), serum Creatinine; eGFR (ml/min/1.73m²), estimated Glomerular Filtration Rate; AKI, acute kidney injury; AKF, acute kidney failure; CKD, chronic kidney disease; RRT, renal replacement therapy; P_u/C_u (mg/g), proteinuria-to-creatinuria ratio; Hu, hematuria; Lu, leukocyturia; TB, tuberculosis; AML, atypical mycobacterial infection; FOS, foscarnet; NSAIDS, non-steroidal anti-inflammatory drugs; DILS, diffuse infiltrative lymphocytosis syndrome; IRIS, immune reconstitution inflammatory syndrome; CD, Castleman disease; A/CTIN, acute-on-chronic tubulointerstitial nephritis; CTIN, chronic tubulointerstitial nephritis; TA, tubular atrophy; ATN, acute tubular necrosis; IgAN, IgA nephropathy; NAS, nephroangiosclerosis; MN, membranous nephropathy; CR, complete recovery; PR, partial recovery; M_x, month x