

Long-Acting Cabotegravir/Rilpivirine as a Safe Antiretroviral Therapy in Solid Organ Transplanted HIV Patients

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Background: long-acting (LA) cabotegravir/rilpivirine (C/R) has emerged as the first new paradigm in antiretroviral therapy (ARV). To date, there is scant information on its usefulness in patients that have undergone solid organ transplantation (SOT).

Material and Methods: descriptive analysis on the viral efficacy and safety of C/R started between September 2023 and May 2024 (administered baseline-w4 and each 8w thereafter, without oral leading) in 5 HIV-infected patients with SOT attended at an HIV Outpatient clinic from a tertiary hospital in Madrid, Spain.

Baseline Features

	P1	P2	P3	P4	P5		P1	P2	P3	P4	P5
Type of transplant	Liver	Liver	Liver	Liver	Renal	Reason for LA	Patient's request	Medical proposal	Medical proposal	Medical proposal	Medical proposal
Age (years)	60	61	49	59	61	LA Start date	Sept, 27, 2023	Nov, 2, 2023	Nov, 6, 2023	Feb, 9, 2024	May, 20, 2024
Sex	Male	Female	Female	Male	Male	HBV status	HBsAg NEGATIVE HbCAb + HBSAb +	HBsAg NEGATIVE HbCAb + HBSAb +	HBsAg NEGATIVE HbCAb + HBSAb +	HBsAb+ (vaccinated)	HBsAb+ (vaccinated)
Race	White	White	White	White	Gypsy	Immunosuppressive therapy	Everolimus	Cyclosporine Mycophenolate	Tacrolimus Mycophenolate	Everolimus Steroids	Cyclosporin Mycophenolate Steroids
CDC-Stage	C3	C3	B3	C3	B3	Comorbidities	COPD Type 2 diabetes Dyslipidemia	Renal insufficiency	Depression Obesity Hypertension Dyslipidemia	HPV-related ORL carcinoma Hypertension Depression	Liver cirrhosis Type 2 diabetes Ischemic cardiopathy Hypertension Dyslipidemia
HIV Risk Factor	IDU	IDU	IDU	IDU	IDU	Concomitant therapies	Pantoprazole Aspirin Inh salbutamol Vildagliptin/metformin Atorvastatin D Vitamin	Pantoprazole Enalapril Clonazepam D Vitamin	Atorvastatin Lorazepam Enalapril Pregabalin D Vitamin Semaglutide*	Pantoprazole Candesartan Sildenafil Aspirin Lorazepam D Vitamin	Isosorbide mononitrate Eplerenone Verapamil Betahistine Losartan Ezetimibe Linagliptine Aspirin
Years on ART	24	28	14	29	28						
Years from transplantation to LA	5	10	12	6	1						
Baseline BMI	22	21	38*	25	32*						
CD4 (cells/ml)	856	575	767	347	583						
HIV RNA (log ₁₀ copies/ml)	<1.30	<1.30	<1.30	<1.30	<1.3						
GFR (ml/min)	76	32	91	85	24						
HIV Subtype	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable						
Prior NNRTI experience	NVP No failure	NO	EFV, RPV No failure	NVP, ETRA, RPV No failure	EFV, RPV No failure						
Number of prior ARV lines	7	6	8	11	22						
Prior ARV	BIC/TAF/FTC	BIC/TAF/FTC	DTG/3TC	DTG/3TC/ABC	BIC/TAF/FTC						

Outcomes

	P1	P2	P3	P4	P5
Weeks on LA	57	52	51	38	23
LA-related AEs	Mild initial ISR	Moderate ISR	Mild ISR	Mild ISR	Dizziness
Discontinuation	NO	NO	NO	NO	NO
Last HIV RNA (log ₁₀ copies/ml)	<1.30	<1.30	<1.30	<1.30	<1.30
HIV RNA blips	NO	NO	NO	NO	NO
Last CD4 count (cells/ml)	782	563	1034	358	544
Last GFR (ml/min)	83	41	99	100	30
Last BMI	23	21	40	24	33

Median FU 51w (23-57)	Baseline	Last	P
CD4 cells/ml (mean±SD)	626±197	656±259	0.68
CD4 RATIO (mean±SD)	1.09±0.98	1.23±1.09	0.34
GFR ml/min (mean±SD)	61,69±31,17	70,83±32,89	0.04
BMI (mean±SD)	27,58±7,36	28,22±7,89	0.17

Conclusion

LA with C/R may be considered in SOT patients as a safe and effective ARV