

# The Long Acting Therapy with CAB/RPV: experience at the Infectious Diseases Clinic of Perugia

E. Schiaroli, S. Tordi, E. Svizzeretto, A. Tommasi, A. Zoffoli, D. Francisci.  
Infectious Diseases Clinic of Perugia, Umbria, Italy

## Introduction/Summary

- The ART can avail of the long acting (LA) therapy with intramuscular injection (i.m.) of cabotegravir/rilpivirine (CAB/RPV), approved of being administered monthly or bi-monthly. Indeed, it can maintain exposure at plasma concentrations exceeding the in vitro 90% inhibition with a slow release into the tissues.
- CAB is an INSTI (HIV viral integrase inhibitor) structurally chemical congener of dolutegravir and characterized by a high barrier resistance, RPV a 2<sup>o</sup> generation NNRTI (non-nucleoside reverse transcriptase inhibitor), already utilized in triple or double ART.
- Aim of our study is to describe the effectiveness and patient satisfaction in switching from a daily oral ART to a LA with CAB/RPV i.m. every two months at Perugia Infectious Disease Clinic.

## Methods

- Since March 2023 some available patients who met the criteria for switching to the LA i.m. with CAB/RPV every 2 months were enrolled.
- Demographic, clinical characteristics and previous antiretroviral therapies from their electronic medical records were collected.
- Moreover, every 2 months all patients were clinically evaluated and interviewed about their CAB/RPV satisfaction.

## Results

- Demographic and clinical characteristics of patients at the baseline are shown in **table 1**, as well as the pre-switch therapies in **graphic 1**.
- CAB/RPV i.m was started in 41 virologically suppressed patients and in one patient with a detectable HIV-RNA, due to a non-adherence to ART.
- After 2 months one patient died from a metastasized oropharyngeal neoplasm and
- After 5 months the LA formulation was suspended in another subject due to a new HBV infection (previously always anti-Hbc. negative).
- In **table 2** the main clinical data at 6 months are reported. No significant changes in immunologic and laboratory data were observed.

Table 1. Demographic and clinical characteristics of patients at baseline

Patients, n	42
Female sex, n (%)	5 (12)
Italian nationality, n (%)	38 (90.4)
Age, m (range)	52 (30-81)
Mode of HIV transmission, n (%)	
Heterosex	19 (45.2)
MSM	21 (50)
Other	2 (4.7)
CD4 cell/mm <sup>3</sup> at nadir, m (range)	317.6 (10-893)
Previous AIDS event, n (%)	6 (14.2)
HCVAb+, n (%)	2 (4.7)
HBcAb+, n (%)	8 (19)
BMI, m (range)	25 (14-33)
BMI >30, n (%)	5 (12)
CD4 cell/mm <sup>3</sup> at BL, m (range)	667 (34-1.113)
CD4 % at BL, m (range)	35 (3.9-60)
CD8 cell/mm <sup>3</sup> at BL, m (range)	681 (59-1.760)
CD8 % at BL, m (range)	34.7 (13-57)
CD4/CD8 at BL, m (range)	1.16 (0.0-3.3)
HIV-RNA <20 cp/ml at BL, n (%)	41 (97.6)
Chol tot mg/dl at BL, m (range)	189 (82-313)
HDL mg/dl at BL, m (range)	51 (31-119)
TG mg/dl at BL, m (range)	106 (34-403)

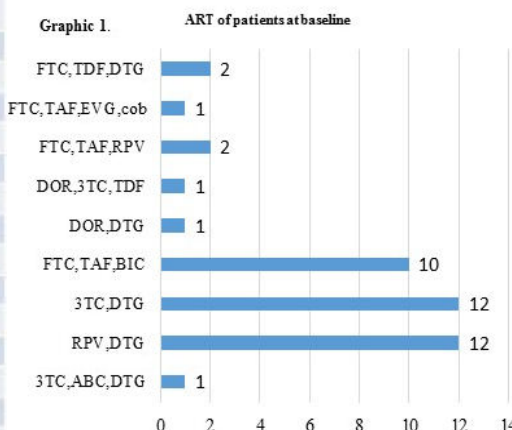


Table 2. Demographic and clinical characteristics of 32 patients at BL and after 6 months of LA

Patients, n (%)	32 (76) at BL	32 (76) after 6 months
Female sex, n (%)	3 (9.3)	2 (6.25)
Italian nationality, n (%)	28 (87.5)	28 (8.75)
Age, m (range)	52 (30-81)	52 (30-81)
Mode of HIV transmission, n (%)		
Heterosex	15 (46.8)	15 (46.8)
MSM	15 (46.8)	15 (46.8)
Other	2 (6.25)	2 (6.25)
CD4 cell/mm <sup>3</sup> at nadir, m (range)	343 (10-305)	343 (15-893)
Previous AIDS event, n (%)	4 (12.35)	4 (12.35)
HCVAb+, n (%)	1 (3.12)	1 (3.12)
HBcAb+, n (%)	5 (15.6)	5 (15.6)
BMI, m (range)	26 (20-33)	25 (21-33)
BMI >30, n (%)	5 (12)	2 (6.25)
CD4 cell/mm <sup>3</sup> at BL, m (range)	692 (34-1.113)	692 (145-1.115)
CD4 %, m (range)	34.5 (3.9-50.5)	36 (9.9-45.8)
CD8 cell/mm <sup>3</sup> at BL, m (range)	713 (59-1.760)	700 (205-2.036)
CD8 %, m (range)	35.7 (13-57)	35.4 (13-54.3)
CD4/CD8, m (range)	1.10 (0.0-3.3)	2.13 (0.1-2.05)
HIV-RNA <20 cp/ml, n (%)	32 (100)	32 (100)
Chol tot mg/dl, m (range)	194 (82-313)	195 (85-323)
HDL mg/dl, m (range)	53 (31-119)	51 (11-69)
TG mg/dl, m (range)	112 (34-403)	102 (49-166)

## Safety

- No significant adverse events were seen.
- All patients with a follow up over 6 months were called and interviewed: a high satisfaction level for the LA was reported.

## Conclusion

In our experience CAB/RPV therapy has shown an excellent virological control, no alterations of the lipid profile and an excellent tolerability. Moreover, it has also contributed to the safeguard of both patient and medical adherence.