Long-Acting Cabotegravir/Rilpivirine in Pregnancy

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BACKGROUND

- Long-acting cabotegravir and rilpivirine (LA CAB/RPV) is a novel complete injectable regimen for virologically suppressed individuals with HIV-1
- Data on the efficacy, safety, and outcomes for individuals receiving LA CAB/RPV during pregnancy are limited
- We evaluated HIV viral suppression rates, perinatal, and neonatal outcomes among pregnant persons with HIV-1 receiving LA CAB/RPV
- This is the first case series to evaluate these outcomes, offering new insight into the use of LA CAB/RPV during pregnancy

METHODS

- We performed a multi-center retrospective chart review of pregnant individuals prescribed LA CAB/RPV between January 2021 and October 2024
- We collected individual demographics, HIV RNA results throughout pregnancy, and key perinatal and neonatal outcomes, including birthweight, gestational age, and rates of viral suppression

RESULTS

Table 1: Baseline characteristics of the study population*

Characteristic	N=23
Age at delivery, yrs, median (IQR)	33 (28, 36)
Race, n (%)	
Black/African American	18 (78)
White	4 (17)
More than one race	1 (4)
Time since HIV diagnosis at delivery, yrs, median (IQR)	14 (9, 26)
Gestational age at first prenatal visit, weeks, median (IQR)	9 (8, 11)
BMI at first prenatal visit, kg/m^2, median (IQR)	28 (22, 33)
Perinatally acquired HIV, n (%)	9 (39)
Comorbidities, n (%)**	
Hypertension (HTN)	4 (17)
Diabetes Mellitus (DM)	1 (4)
Active Substance Use	4 (17)
Psychiatric Illness	6 (26)

*All participants were cis-gender females
**Two Individuals had active substance use and psychiatric illness, one had DM and HTN

Our findings support the consideration of LA-CAB/RPV as a viable treatment option during pregnancy, though further research with larger cohorts is needed to validate these findings and ensure long-term safety.

Table 2: Characteristics of those who started LA CAB/RPV prior to pregnancy

	N=23
Initiated LA CAB/RPV prior to pregnancy, n (%)	17 (74)
LA CAB/RPV dosing during pregnancy, n (%)	
Monthly	6 (38)
Bimonthly	11 (62)
Switched off LA CAB/RPV to oral ART during pregnancy*, n (%)	5 (29)
Gestational age at switch off LA CAB/RPV, weeks, median (IQR)	7 (6, 8)
LA CAB/RPV dose changed during pregnancy, n =12, n (%)	
No	10 (83)
Yes**	2 (17)

* Switched to TAF/FTC and DTG (3), ABC/3TC/DTG (1), 3TC/DTG to ABC/3TC/DTG (1)
** Changed from bimonthly to monthly dosing

Table 3: Characteristics of those who started LA CAB/RPV during pregnancy

	N=23
Initiated LA CAB/RPV during pregnancy, n (%)	6 (26)
LA CAB/RPV dosing during pregnancy, n (%)	
Monthly	6 (100)
Prior oral ART, n (%)	
FTC/TAF/BIC	5 (83)
FTC/TAF/BIC + DRV/c + DOR	1 (17)
Gestational age at switch to LA CAB/RPV, weeks, median (IQR)	22 (17, 28)

Table 4: HIV viral load data

	N=23
HIV viral load at initial visit, n (%)	
< 20 copies/mL	16 (70)
20 - 200 copies/mL	2 (9)
201 - 1000 copies/mL	1 (4)
> 1000 copies/mL	4 (17)
HIV viral load at delivery, n (%), N=21	
< 20 copies/mL	17 (81)
20 – 200 copies/mL	3 (14)
201 – 1000 copies/mL	0
> 1000 copies/mL	1 (5)

Table 5: Delivery and neonatal outcomes

	N=23
Birth outcome, n (%)	
Live birth	21 (92)
Miscarriage	1 (4)
Stillbirth	1 (4)
Gestational age at delivery, weeks, median (IQR)	37 (36, 39)
Birth weight, grams, median (IQR)	2588 (2241, 2816)
Neonatal HIV status, n (%)	
Negative	20 (95)
Unknown	1 (5)

CONCLUSIONS

- The preliminary results of this multi-center retrospective cohort suggest that LA CAB/RPV is associated with a high percentage of viral suppression in pregnant person with HIV-1
- Given the small sample size, it was not possible to conduct a meaningful analysis of any associations between perinatal outcomes and the use of LA CAB/RPV during pregnancy
- Further research is needed to validate these findings, evaluate the pharmacokinetics, and ensure long-term safety.