ENHANCED ADHERENCE COUNSELLING AMONG ADOLESCENTS WITH DETECTABLE VIREMIA IN CAMEROON

1058

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BACKGROUND

- In low-and middle-income countries (LMIC), mortality among adolescents living with HIV(ADLHIV) is still concerning, driven by poor viral suppression (VS) in the frame of limited adherence monitoring approaches;
- We herein evaluated the virological outcomes after enhanced adherence counselling (EAC) among ADLHIV with non-VS and low level viremia (LLV) in the era of tenofovir-lamivudine-dolutegravir (TLD) in Cameroon;

METHODS

- In the frame of the CIPHER-ADOLA project, we conducted a multicenter facility-based cohort-study among ADLHIV (10-19 years) in Cameroon;
- Three EAC sessions were provided to ADLHIV with a viral load (VL) ≥ 50copies/ml during 3 months (one session per month);
- VS, low-level viremia (LLV) and virological failure (VF) were defined as VL<1000, 50-999 and ≥1000 copies/mL, respectively.
- The outcome after EAC among ADLHIV with LLV and non-VS was respectively to achieve viral undetectability and VS;

Table 1: Sociodemographic and clinical characteristics

Variables	Number	Percentages (%)
Gender		
Female	41	58.6
Male	29	41.4
Age (years)		
10-14	30	42.9
15-19	40	57.1
Pre-TLD Backbones		
ABC+3TC	35	50.0%
TDF+3TC	29	41.4%
AZT+3TC	6	8.6%
ART adherence rates pre-EAC		
Poor	51	72.9%
Good	19	27.1%
CD4 counts pre-EAC, cells/mm³		
CD4 ≥500	33	47.2%
CD4 350-499	32	45.7%
CD4 <350	5	7.1%
Viral loads pre-EAC, copies/mL		
50-999 copies/mL	31	44.6%
≥1000 copies/mL	39	55.4%

Viral non suppression and Low level viremia significantly declined after EAC among ADLHIV receiving TLD. In this TLD-era, EAC should be provided to all ADLHIV with detectable VL to optimize the virological outcome and achieving the elimination of pediatric AIDS in LMICs

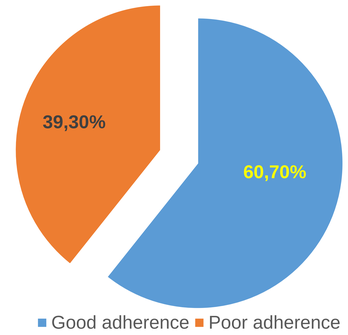


Figure 1: ART adherence rate after EAC

RESULTS

- Of 252 ADLHIV enrolled and followed up for VL testing, 70 (27.8%) had a VL≥50 copies/ml;
- Majority of the participants resided in urban areas (n = 48, 68.6%), with 31.4% in rural areas (n = 22);
- Median TLD-duration was 23.5 [±11.6] months;
- Overall, 94.3% (n = 66) of our participants were schooling.

Table 2: Virological outcome after EAC and associated factors

Variable		Viral loads post-EAC (copies/ml)			p-value
		<50 (N=33, 58.9%)	50-999 (N=11, 19.6%)	≥1000 (N=12, 21.4%)	
Age, years	10-14	15 (71.4%)	3 (14.2%)	3 (14.2%)	0.335
	15-19	18 (51.4%)	8 (22.8%)	9 (25.7%)	
Gender, n (%)	Female	21 (60.0%)	9 (25.7%)	5 (14.2%)	0.135
	Male	12 (38.7%)	2 (6.4%)	7 (22.5%)	
HIV status disclosure	Complete	26 (61.9%)	7 (16.6%)	9 (21.4%)	0.521
	Partial	3 (75.0%)	0 (0.0%)	1 (25.0%)	
	Non-disclosed	5 (45.4%)	4 (36.3%)	2 (18.1%)	
Viral load Pre-EAC	≥1000	10 (40.0%)	3 (12.0%)	12 (48.0%)	/
	50-999	23 (74.1%)	8 (25.8%)	0 (0.0%)	
Pre-TLD backbones	ABC+3TC	24 (64.8%)	6 (16.2%)	7 (18.9%)	0.850
	AZT+3TC	2 (50.0%)	1 (25.0%)	1 (25.0%)	
	TDF+3TC	7 (50.0%)	4 (28.5%)	3 (21.4%)	
ART adherence post-EAC	Good	24 (70.5%)	6 (17.6%)	4 (11.7%)	0.005
	Poor	12 (54.5%)	0 (0.0%)	10 (45.4%)	

- Despite a non-significant decline in median VL (126 [52-1871] post- EAC versus 135 [95-8519] at baseline, p=0.945), viral non-suppression and LLV significantly declined from 55.4% to 21.4% (p=0.0002) and 44.6% to 19.6% (p=0.0046) respectively after EAC.
- Overall, 73.2% significant decline in VLs (-0.5 log10 RNA) was observed between pre- and post-EAC.
- After EAC, most ADLHIV had a good adherence to ART (60.7%).

CONCLUSIONS

- In LMICs transitioning to TLD, an effective EAC would substantially improve ART outcomes among ADLHIV experiencing non-VS.
- In context, LMICs are encouraged to accompany the transition to pediatric dolutegravir-containing regimens with a robust adherence support strategy for ADLHIV with detectable VL to achieve elimination of pediatric AIDS by 2030.

ADDITIONAL KEY INFORMATION

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