

Herrera-Díaz C¹, Maldonado-Lara E¹, Sánchez T, Engreet Ruíz⁴, Díaz-Caicedo D⁴, Chávez A⁴, Hernández-Rodríguez D², Jimenez A², Carranza F⁴, Chaparro-Zúñiga Y³.

1 Internal medicine and infectious diseases specialists, 2 familiar medicine specialist, 3 internal medicine specialist, 4 general medical practitioners

Corresponding author mail: anac.herrera@urosario.edu.co

Background

Persistent low level viremia (all the patients on ART with HIV RNA between 50-200 copies/ ml more than once between 2013 to 2018. An univariate and bivariate analysis was also done. PLLV) of HIV RNA can be found in previously virologically suppressed HIV patients. When persistent (more than two LLVs detected) becomes a challenge for the clinician. The aim of this study was to characterize patients with PLLV and determine factors associated with virological failure (VF) viral load >200 copies/mL following the detection of PLLV.

Material and methods

A retrospective study was carried out using the database of a third level hospital (Barrios Unidos -Mederi) in Bogotá, Colombia. It included all the patients on ART with HIV RNA between 50-200 copies/ ml more than once between 2013 to 2018. An univariate and bivariate analysis was also done.

In total, 1238 patients were analyzed.

Results

Table 1. General characteristics of the population with persistent low level viremia (PLLV)

PLLV (50-200 copies/ml) (n/N)	5.9% (74/1238)
Mean age (years)	49.6
Men (%)	97.2
Less than 200 TCD4/mm ³ lymphocytes at the time of diagnosis (%)	55
Tenofovir DF/emtricitabine (%)	52
Protease inhibitors (PI) (%)	41
Non-nucleoside reverse transcriptase inhibitors drugs (%)	28
Integrase inhibitors (%)	12

Table 2. Comorbidities and outcomes in 74 patients with PLLV

Syphilis (%)	39
Diabetes (%)	12
Chronic kidney disease (%)	13
Cardiovascular disease (%)	16
Dyslipidemia (%)	63
Hypothyroidism (%)	18
Polypharmacy ^a (%)	35
Detectable viremia during follow up (until 2018) (%)	20
Progression to VF (>200 copies/mL) (%)	12
Average time from detection of low viremia to undetectability	10 months± 5

^a more than seven drugs for their comorbidities

Table 3. Factors associated with VF in 74 patients (bivariate analysis)

Factor	OR(IC 95%)
Polypharmacy	4,24 (0,059-0,043) P =0.034
Chronic Kidney disease ^b	5,29 (0,04-0,76) P =0.012

statistically significant P <0.05

^b associated with still having detectable viremia

Conclusions

PLLV following virological suppression is common. In our cohort most of them are with protease inhibitors. It is well known that PVVL can be due to problems in adherence. It is common in our center to work in adherence with these patients.

12% progressed to VF and the only factor associated was polypharmacy. On the other hand, CKD is associated with still having detectable viremia. It is important to evaluate in a future the influence of adherence improvement, reduction of polypharmacy as well as the impact of PI in these patients.