Hepatitis B Reactivation in PWH With Isolated Anti-Core Pattern on Therapies Excluding Tenofovir

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BACKGROUND

The **isolated anti-core pattern** (antiHBc+, antiHBs-, HBsAg-) is more frequently observed in people living with HIV (PWH). It suggests a past hepatitis B virus (HBV) infection; however, it can also indicate **an occult HBV infection, which implicates a risk of viral reactivation**. Historically, antiretroviral (ART) regimens containing tenofovir (TXF) have effectively suppressed HBV replication, reducing the risk of reactivation.

However, dual HIV therapy regimens now commonly exclude TXF or other drugs with direct anti-HBV activity. The aim of this study was to evaluate **the incidence of HBV reactivation in PWH with isolated anti-core pattern who are treated with dual ART regimens lacking TXF**: DTG+3TC, DTG+RPV, or CAB+RPV-LA.

METHODS

Cross-sectional, single-center study including PWH with a history of isolated anti-core pattern who attended the HIV clinic between April and December 2024.

All participants were on **dual ART regimens without TXF**. **HBV serologies (antiHBc, antiHBs, HBsAg) and HBV-DNA levels were measured**. Informed consent was obtained from all participants, and the study was approved by the Hospital La Paz Ethics Committee for Medical Research. Results are presented as absolute numbers (%) or medians (interquartile range, IQR).

TXF-free dual ART regimens exhibit a minimal HBV reactivation risk in isolated anti-core PWH beyond 2 years

Participant baseline data	All (n=135)
Sex, male n (%)	107 (79.3%)
Age, median (IQR)	60 (57-63)
Raze, caucassian n (%)	128 (94.8%)
ART duration (years), median (IQR)	27 (24-29)
Nadir CD4+ (cells/mm3), median (IQR)	200 (45-301)
Baseline CD4+ (cells/mm3), median (IQR)	686 (503-935)
Hepatitis C coinfection	103 (76.3%)

Figure 1. Characteristics of participants

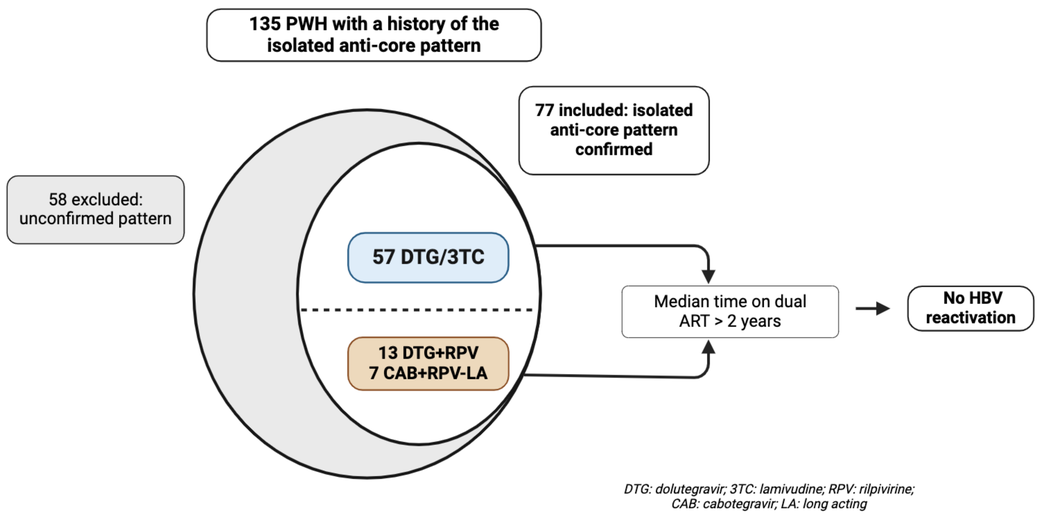


Figure 2. Flow chart

RESULTS

Of 4006 PWH in our cohort, **37.4% (1499) had a previous exposure to HBV:** 25.6% (1026) had a past HBV infection, 2.2% (87) a chronic HBV infection (HBsAg positive) and **9.6% (386) an isolated anti-HBc pattern**.

A total of 135 PWH with isolated anti-core pattern were on TXF-free ART regimens and were enrolled in the study. Details of demographic characteristics are shown in Figure 1. The isolated anti-core pattern was confirmed in **77 of them (57 DTG+3TC; 13 DTG+RPV; 7 CAB+RPV-LA)**. Only 10 of them were vaccinated and **2 of them were receiving immunosuppressive treatments.**

Figure 2 summarizes main outcomes of our study: among the 20 participants on regimens **without HBV-active drugs, no cases of HBV reactivation were observed** after a median time on the regimen of 2.1 years (1.2-3.5). The median duration of therapy with **DTG+3TC** was 3.8 years (2.75-4), **and no HBV reactivation was detected** in any participant. Only one participant (1/57) on DTG+3TC exhibited a transient HBV-DNA blip (29 IU/mL), which was not confirmed in a follow-up sample.

CONCLUSIONS

Our findings suggest that **the risk of HBV reactivation** in PWH with **isolated anti-core patterns** who are treated with **TXF-free dual ART regimens is extremely low** after more than 2 years of follow-up. This holds **true even for regimens that do not have direct anti-HBV activity**, such as DTG+RPV and CAB+RPV-LA.

ADDITIONAL KEY INFORMATION

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