Transaminase elevations among patients with occult HBV infection on two-drug antiretroviral regimens

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BACKGROUND

Concerns have been raised about hepatitis B reactivation among people with HIV (PWH) with occult HBV infection (OHBVI) who discontinue agents with anti-HBV activity.

This occurrence has been reported sporadically, mostly in PWH with low CD4+ cell counts or during immunosuppressive treatment.

It is worth investigating whether OHBVI increases the risk of transaminase elevation, which could indicate hepatitis B reactivation, among PWH who switch to two-drug regimens (2DR) and discontinue tenofovir (TFV) and/or lamivudine (3TC).

METHODS

We selected antiretroviral-experienced patients from the HSG cohort, a prospective cohort enrolling PWH at Fondazione IRCCS San Gerardo de’ Tintori of Monza (Italy), who:

- Switched for the first time to a 2DR between Jan 2018 and Oct 2023, discontinuing ≥1 drug with anti-HBV activity;
- Tested negative for HBV surface antigen;
- Had measured anti-HBV core antibody (HBcAb) and anti-HBc surface antigen (HBsAb) at baseline and during follow-up.

A reactive HBcAb serum indicated the presence of OHBVI.

Two cohorts were enrolled in the study. Cohort 1 consisted of patients who discontinued TFV but continued 3TC. Cohort 2 consisted of patients who switched to a regimen that did not include either TFV or 3TC.

RESULTS

- A total of 167 patients switched to a 2DR containing 3TC (Cohort 1). Among them 33 patients (19.8%) had discontinued TFV and 134 (80.2%) discontinued TAF; 118 switched to a 2DR without TFV and 3TC (Cohort 2), of whom 11 (9.3%) discontinued TDF and FTC, 61 (51.7%) TAF and FTC and 46 (39%) only 3TC.

- Table 1 shows their characteristics grouped by OHBVI status.

- Risk factor: N=149 (Cohort 1) and N=99 (Cohort 2);
- After adjusting for possible confounders, the forest plot in Figure 3 shows no significant change in the presence of OHBVI with grade ≥1 LFTI, either in Cohort 1 (log-rank test P=0.763, Figure 2).

CONCLUSIONS

Presence of OHBVI infection was not significantly associated with transaminase elevation among PWH treated with 2DR lacking anti-HBV agents. This real-life observation provides reassurance regarding the safety of transitioning to dual therapy in patients with OHBVI.