Title

Reply to author : More long-term assessment of transient elastography is needed for HIV-HBV co-infected patients undergoing treatment with tenofovir

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TO THE EDITOR- We agree with Boyd and Lacombe that there is a paucity of prospective longitudinal data on change in liver fibrosis measured by transient elastography (TE) in HIV/hepatitis B (HBV) co-infected patients starting tenofovir, particularly among patients in sub-Saharan Africa.[1]

TE has been validated as a non-invasive measure of fibrosis with good diagnostic accuracy in HBV using histological hepatic fibrosis scores as the gold standard.[2] Most data arises from Western or Asian settings among mono-infected patients and there is a need for validation studies in African populations including in HIV/HBV co-infection to support future research.[3,4]

There is mounting evidence of the independent prognostic value of TE in predicting subsequent liver related mortality, decompensation and development of hepatocellular carcinoma.[5-7] It may be argued that TE has challenged liver biopsy for position as the gold standard in assessing hepatic fibrosis and prognosis, given that a greater area of liver is examined by TE and that problems of inter- and intra-observer variability and sampling error due to inhomogenous fibrosis that are associated with liver biopsy are less likely to affect TE.[8] Furthermore, TE permits frequent reassessment and can measure of response to therapy, so long as the limitations of the technology are considered, including variation with meals and false elevation with cholestasis, steatosis and acute transaminitis.[8-11]

The data presented by Boyd et al are interesting and demonstrate highly variable responses among French HIV/HBV patients treated with tenofovir, with most of the improvement in TE scores occurring within the first year of treatment.[1] In the data they provide, a number of subjects who have increasing TE measurements on treatment and it would be interesting to understand the mechanisms, for example, poor adherence or hepatitis C or delta superinfection. It would be important to correlate their finding with results of HBV DNA suppression; while over 80% of the total cohort under follow up at 6 years (n=172) achieved HBV suppression in their accompanying paper, results for this TE subgroup (n=28) are not presented.[12] Their data suggest that there may be limited improvement beyond the first year of treatment. This is in contrast to evidence from larger studies of mono-infected subjects that showed marked ongoing improvements after the first year and up to five years of treatment.[13] If such a finding can be confirmed in a larger sample despite long term HBV suppression, the unique immunopathogensis associated with HIV co-infection may be found responsible.

Even if no further improvement is shown to continue beyond the first year, by limiting HBV replication among patients with a high rate of lamivudine resistance and virological breakthrough, progression of fibrosis and liver related morbidity can be prevented. Our finding of high rates of HBV suppression and early regression of fibrosis with tenofovir in patients extensively exposed to lamivudine remains highly encouraging.[14] We agree that long term data on HIV/HBV patients treated with tenofovir in sub-Saharan Africa are required and we have planned further follow up of the participants of HEPIK including further assessment with TE.

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