

Human immunodeficiency virus and fatty liver: the perfect storm or a storm in a teacup?

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We are pleased to read the letter to the Editor by Jia and Sebastiani on our recently published paper¹.

The letter contains relevant comments on our paper and on important aspects regarding the association between NAFLD and HIV infection.

The authors highlight the surprisingly low percentage of NAFLD biopsies in our cohort compared to other studies and at the same time underline the high number of biopsies with normal findings/non-specific changes we found. The authors suggest that these findings may be related to the shorter duration of HIV infection and lower exposure to ART characterizing our cohort. Indeed, in our population the median duration of HIV infection was 10.5 years whereas other studies on NAFLD prevalence among HIV-infected people reported a median duration ranging from 10.6 to 19.9 years; on the other hand, among these studies, only a few reported data on ART duration or indeed generation of HIV treatment used. In data reported from Greece, which included patients with exposure to first generation medication and longer duration of ART, NAFLD was prevalent in 55% of unselected patients with HIV mono-infection². We performed a sub-analysis in our cohort showing no significant difference between duration of HIV infection (median duration 120 months versus 129 months respectively) and ART exposure (median duration 90 months versus 99 months respectively) among patients with normal biopsy/non-specific changes versus patients with NAFLD respectively.

Secondly, the authors correctly stress the importance of undertaking diagnostic investigations in HIV-mono infected patients and abnormal transaminases as also by the recent EACS guidelines³. It is unfortunate that the EACS guidelines fell short of recommending a specific algorithm; we would propose the use of a simple non-invasive test such as FIB-4 as a first step followed by transient elastography in patients with indeterminate FIB-4 results⁴. On the other hand it is important to underline though that normal transaminases do not exclude severe liver disease⁵, therefore a case of screening for fibrosis HIV patients at risk of liver disease should be further explored.

Thirdly, the authors of the letter comment on possible association between quality sample, procedural characteristic of biopsy (type of needle used, type of approach) and severity of liver disease as it has been shown that all these data correlate with diagnostic accuracy. All percutaneous biopsies in our study were performed using a Tru-Cut needle. Transjugular biopsies when performed had four passes, which produce similar quality samples as percutaneous biopsies⁶. As stated in the paper, we relied on the report made by the pathologist in order to judge the quality of the sample: biopsies for which the pathologist clearly stated that quality was too scarce to perform a diagnosis were excluded from the analysis.

We agree with Jia and Sebastiani that larger, prospective studies possibly using histological outcomes need to be conducted in order to have a better understanding of NAFLD/NASH in HIV people. In view of the findings of this study, our hypothesis is that the risk of NAFLD and fibrosis in HIV mono-infected patients depends on prior exposure to potentially hepatotoxic ART that is rarely used nowadays.

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