

A Reply to the Letter in Response to the Article “Seroprevalence of Hepatitis B Virus, Hepatitis C Virus, Syphilis, and Associated Factors Among Female Sex Workers in Gondar Town, Northwest Ethiopia” [Response to Letter]

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Dear editor

We have read and appreciated the response letter by Isnawati et al to our article entitled “Seroprevalence of Hepatitis B Virus, Hepatitis C Virus, Syphilis, and Associated Factors Among Female Sex Workers in Gondar Town, Northwest Ethiopia.”

The letter really points out some important issues; we thank you for that, but we also want to respond to some of the issues. The first point that was raised on the issue of screening simultaneously both HBsAg and HBsAb, as it is recommended, was that screening only HBsAg is not adequate from two points of view.

The first is the issue of infection type: whether acute, chronic, or in recovery (viral clearance) from another HBV serotype, “HBsAg examination without being followed by other serological tests (HbsAb and HBcAb) could not distinguish the type of infection”. It is useful to have information about the type of infection; however, our goal was to determine whether or not the female sex workers (FSWs) had the infection.

The recommended test could not distinguish the chronicity of the HBV infection; possibly, the Hepatitis B core antibody (HBcAb) could tell of a previous HBV infection, but this would not mean that it was a chronic infection. To confirm chronic infection, we must repeat the HBsAg test after 6 months.^{1,2} Screening for HBsAg can detect current infection. This was the primary goal of the research. Hepatitis B surface antibody (HbsAb) serological test: The presence of anti-HBs is commonly interpreted as indicating recovery and immunity from hepatitis B virus infection or successful vaccination against hepatitis B virus.^{1,2} The presence or absence of HbsAb does not indicate whether the individual has acute or chronic HBV infection.^{1,2}

The second issue here is that,

put alongside the results of the HBsAg test with anti-HCV and syphilis antibody data is not appropriate. Anti-HCV and anti-Syphilis showed that the respondent had been in contact with microorganisms, whether exposure or infection could not be ascertained. Both only provide evidence of developed immunity as a result of past natural infection, post-vaccination or even development of immunity that occurs concurrently with the disease. (acute or chronic)

The main thing the authors missed is that there is no protective vaccine against the hepatitis C virus (HCV). That is why in resource-limited countries like Ethiopia, screening for HCV infection is done by testing for the presence or absence of anti-HCV. Although a positive anti-HCV antibody test cannot differentiate between acute and chronic HCV infection, it may indicate infection.^{3,4} Post-vaccination screening is mandatory for HBV infection since there is a vaccine for HBV infection prevention.

In our study, we found no FSW with a history of HBV vaccination. By 2007, Ethiopia had implemented universal routine HBV vaccination through the Expanded Program for Immunization (EPI).⁵ As a result, the FSWs in the study could not be vaccinated through the EPI program. This means that there is no need to test for HbsAb in our case.

Regarding the serologic test for anti-Syphilis antibodies, there are two distinct categories that are divided according to the type of antigen that the antibodies are directed against. Antibodies to proteins from *T. pallidum* are found by treponemal assays. Antibodies against lipoidal antigens, harmed host cells, and perhaps treponemes are found by non-treponemal testing. To confirm the infection and establish whether the disease is active, both tests are performed. It would have been beneficial to use additional specialized Treponemal tests, all of which are unavailable in Ethiopia. These tests include the fluorescent treponemal antibody absorbed (FTA-ABS) test, chemoluminescence immunoassays, and enzyme immunoassays that detect treponemal antibodies.⁶

In general, we accepted some of the writers' ideas where there is no constraint on advanced laboratory tests. However, it cannot nullify the benefit of other testing (HBsAg test, anti-HCV test, and anti-syphilis test).

Disclosure

The authors report no conflicts of interest in this communication.

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