

Prevalence of *Treponema pallidum* Infection among HIV-Seroreactive Patients in Kano, Nigeria

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Abstract : Sexually transmitted infections (STIs) have continued to be a major public health problem in sub-Saharan Africa especially with the recent resurgence of syphilis. Syphilis is a systemic disease caused by the bacterium, spirochete *Treponema pallidum* and has been reported as one of the common sexually transmitted infections (STIs) in Nigeria. Presence of genital ulcer disease from syphilis facilitates human immunodeficiency virus (HIV) transmission and their diagnosis is essential for the proper management. Venereal Disease Research Laboratory (VDRL) test is used as a screening test for the diagnosis of syphilis. However, unusual VDRL test results have been reported in HIV-infected persons with syphilis. There are reports showing higher than expected VDRL titers as well as biological false positive in most of the studies. A negative Rapid Plasma Reagin (RPR) test or VDRL test result may not rule out syphilis in patients with HIV infection. For laboratory confirmation of syphilis, one specific Treponemal test, namely, Fluorescent Treponemal Antibody Absorption (FTA-ABS) test or *Treponema Pallidum* Haemagglutination Assay (TPHA) should be done along with VDRL. A prospective cross sectional study was conducted for 2 years from Jun, 2012 to Jun 2014 to determine the prevalence of syphilis in HIV-seroreactive patients at 5 selected HIV/AIDS treatment and counseling centers in Kano State, North Western, Nigeria. New HIV-Seroreactive patients who gave informed consent to participate in the study were recruited. Venereal Diseases Research Laboratory (VDRL) test for Syphilis screening was performed on the same sera samples which were collected for HIV testing. A total of 238 patients, 113 (47%) males and 125 (53%) females, were enrolled. In the present study, 238 HIV-seropositive patients were screened for syphilis by VDRL test. Out of these 238 cases, 72 (32%) patients were positive for TPHA and 8 (3.4%) patients were reactive for VDRL in various titers with an overall prevalence of 3.4%. All the eight patients who were reactive for VDRL test were also positive for TPHA test. In Conclusions, with high prevalence of syphilis among HIV-infected people from this study, it is recommended that serological testing for syphilis should be carried out in all patients with newly diagnosed HIV infection. Detection and treatment of STI should have a central role in HIV prevention and control. This will help in proper management of patients having STIs and HIV co infection.

Keywords : HIV, infections, STIs, syphilis

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