135. DIAGNOSTIC TRAITS OF NEUROSYPHILIS AMONG PEOPLE LIVING WITH HIV

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Introduction. Neurosyphilis is the infection of the central nervous system by Treponema pallidum which can occur at any stage of the syphlis (1). Taylor et al. reported a 2.1% incidence of neurosyphilis among population with HIV compared to 0.6% in people without HIV (1,2). HIV coinfection more often predispose T.pallidum towards neuroinvasion. The presentations of neurosyphilis includes meningitis, meningovascular disease, cranial nerve involvement, general paresis and tabes dorsales (1,3). In contemporary literature its emphasized that HIV coinfection increases the rate of early neurosyphilis with more severe course and higher risk of serological failure.
Aim of the study. In present study, we aimed to identify clinical and laboratory features of neurosyphilis presentation among people living with HIV/AIDS.
Materials and methods. Retrospective study was carried out in the cohort of patients with HIV/AIDS referred to the inpatient department of Hospital of Dermatology and Communicable Diseases in Chisinau, Republic of Moldova.
Results. Since 2017 and up to 2020, a total number of 8 patients with HIV/AIDS manifesting neurosyphilis were determined. 5 out of 8 patients developed early forms of nervous system alteration provoked by Treponema pallidum (T.pallidum) invasion, including meningo-vascular ischemic presentation and optic nerve involvement. 3 patients were diagnosed with late form of neurosyphilis – general paresis. Rapid plasma reagins (RPR) non-treponemal test was extremely positive in serum of all patients with neurosyphilis enrolled in study, especially among those who manifested the early forms of the disease with titers raged from 1:32 to 1:64. Treponemal tests (TPHA and ELISA) were both positive in patient's blood. In cerebrospinal fluid (CSF) serological reactions for T.pallidum presented differently: RPR test was positive in early neurosyphilis and respectively negative results were seen among patients with late forms. Treponemal tests in CSF showed peculiar results too, TPHA was positive in all cases together with high levels of anti-treponemal immunoglobulins G (IgG) assessed by immunoenzymatic assay (EIA). Presence of anti-treponemal immunoglobulins M, in patients CSF, were determined in 2 out of 8 patients who manifested early forms of disease and in 1 with general paresis. CD4+ cells count ranged from 36 up to 200 cells/ml. All the patients received antibiotic therapy via intravenous administration. Just 2 out of 8 patients enrolled in this study were diagnosed with clinical and serological cure of neurosyphilis, 2 patients have died, another 4 manifested only partial recover.
Conclusions. Evolution of neurosyphilis among patients with HIV depends on the degree of immune system dysfunction together with anatomical sites of brain alteration (meningea, blood vessels and cranial nerves or brain parenchima). Duration of T.pallidum neuroinvasion, initiation of antibiotic therapy along with neuroprotective medication are either important.
Key words: neurosyphilis, HIV-coinfection, diagnosis