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HIV clinical stage progression of patients at 241 outpatient clinics in Democratic Republic of Congo: Disparities by gender, TB status and rurality

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0705

HIV clinical stage progression of patients at 241 outpatient clinics in Democratic Republic of Congo: Disparities by gender, TB status and rurality

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Background: HIV clinical care programs are increasingly cognizant of the importance of customizing services according to patients' clinical stage progression (WHO's four-tiered staging) and other risk assessments. Understanding factors associated with Persons Living with HIV (PLHIV) patients' progression through the treatment cascade and clinical stages is essential for programs to provide patient-centered, evidence-based services.

Methods and materials: To analyze patient characteristics associated with disease progression stages for PLHIV on antiretroviral therapy (ART), this quantitative study used data, from January 2014–June 2019, from 49,460 PLHIV on ART from 241 HIV/AIDS outpatient clinics in 23 health zones in Haut-Katanga and Kinshasa provinces, Democratic Republic of Congo. To assess bivariate and multivariate associations, we performed Chi-square and multinomial logistic regression.

Results: Among PLHIV receiving ART, 4.4% were at stage 4, and 30.7% at stage 3. Those at the less severe stages 2 and 1 constituted 22.9% and 41.9%. After controlling for covariates, patients with no TB were significantly more likely than those with TB ($p < .05$) to be at stage 1, rather than 3 or 4 (adjusted odds ratio or AOR, 5.73; confidence interval or CI, 4.98–6.59). Other characteristics significantly associated with higher odds of being at stage 1 included being female (AOR, 1.35; CI, 1.29–1.42), and shorter duration on ART (vs. > 40.37 months); for ART duration less than 3.23 months the AOR was 2.47, for 3.23–14.52 months duration the AOR was 2.60, and for 14.53–40.37 months duration the AOR was 1.77 (quartile cut points used). Compared to patients in urban health zones, those in rural (AOR, 0.32) and semi-rural health zones (AOR, 0.79) were less likely to be at stage 1.

Conclusion: Significant and substantial variation in HIV clinical progression stage by geographic location and demographic characteristics existed, indicative of the need for targeted efforts to improve the effectiveness of HIV care. Patients with TB coinfection compared to those without coinfection had a much greater risk of being at stage 3 or 4, implying a need for customized approaches and clinical regimens for this high-risk population.

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0706

A rare case of supratentorial hemangioblastoma in HIV/AIDS patient with multiple opportunistic infections

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Background: An opportunistic infection was a deadly problem in HIV/AIDS. A patient with a CD4 count below 200 cells/ μ L poses a high risk to suffer from multiple opportunistic infections. Moreover, several studies have shown that HIV/AIDS can induce malignancy. Here we report an HIV patient with multiple opportunistic infections and supratentorial hemangioblastoma.

Case description: A 33-year-old housewife with known HIV positive status, suspected of being transmitted with HIV by her husband who had died in 2014. Since then, she took antiretroviral drugs for 3 months and stopped it by herself until now. She was admitted to the hospital in lethargic condition with severe headaches, nausea, vomiting, difficulty to swallow and one-time seizure. Physical examination showed decreased vision of the right eye, oral thrush, crackles in both lung apices, and signs of moderate mild dehydration. Laboratory results were microcytic hypochromic anemia, hyponatremia, hypokalemia, hypocalcemia, and hypoalbuminemia. The CD4 counts were 4 cells/ μ L, and Reactive IgG and IgM for Cytomegalovirus. The X-ray and CT scan of thorax indicated active pulmonary tuberculosis infection. Funduscopic examination showed a cotton wool spot, a typical sign of Cytomegalovirus retinitis. The contrast-enhanced MRI of the brain revealed a suggestive image of supratentorial hemangioblastoma. The patient was treated with lamivudine, tenofovir, and efavirenz as antiretroviral drugs; rifampicin, isoniazid, pyrazinamide, and ethambutol as antituberculosis drugs; intravenous ganciclovir; intravenous fluconazole; nutritional therapy and was planned for craniotomy, unfortunately, the patient refused surgery.

Discussion: Supratentorial hemangioblastoma, a rare type of tumor that counts only 1–2% of all hemangioblastomas, and 8–12% of all types of intracranial neoplasms. The cause of this malignancy in this patient is unknown. A very low CD4 evoked multiple infections complicating the patient.

Conclusion: Adherence to treatment is an important key to prevent the manifestation of various opportunistic infections and even malignancy in HIV patients. Proper holistic treatment is needed to improve the patient's condition.

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