

**Background** > Although Sub-Saharan Africa accounts for 71% of the people living with Human Immunodeficiency Virus (HIV) worldwide and Cameroon accounts for about 2% of them, the role of HIV-induced immunodeficiency and exposure to Antiretroviral Therapy (ART) in the occurrence of cancers in Cameroon has scarcely been examined. The aim of our study was to determine the incidence of cancers in HIV patients and to determine the role of CD4+cell count in the onset of cancers. **Methods** > A retrospective cohort study was carried out from medical records of people confirmed to be HIV-positive from 01 July 2003 to 30 April 2013. Potential risk factors were studied by Cox proportional hazards model. **Results** > A total of 1768 patients were included in the analysis and 53 cases of cancer were diagnosed with an incidence rate of 7.4 per 1000 person-year of follow-up (95% CI; 5.4–9.4 per 1000 person-years of follow-up). Immunosuppression and exposure to ART were identified as factors associated with the occurrence of cancers in this population. Current CD4+cell count was the most important risk factor for cancer. Risk of cancer ranged from 15.51 (95% CI; 5.45–44.1;  $P < 0.001$ ) for a CD4+ cell count  $< 50$  cells/mm<sup>3</sup> to 2.87 (95% CI; 1.14–7.2;  $P = 0.025$ ) for a CD4+ level between 350–499 cells/mm<sup>3</sup>. **Conclusion** > Our study showed that the incidence rate of cancers is high among HIV patients in Cameroon. This incidence seems to correlate positively with the latest CD4+cell count and negatively with initiation of antiretroviral treatment.